



# 2016-2017 CATALOG

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# Notice to Readers

Every effort has been made to provide accurate information. Policies and information may have changed since publication. Please consult with the appropriate University department or office for possible revisions. For department information, call the University at 360-650-3000.

This catalog is available in alternate formats by calling the ADA Coordinator at 360-650-3307 or 711 (Washington Relay).

Western Washington University (WWU), in compliance with applicable laws and in furtherance of its commitment to fostering an environment that welcomes and embraces diversity, does not discriminate on the basis of race, color, creed, religion, national origin, sex (including pregnancy and parenting status), disability, age, veteran status, sexual orientation, gender identity or expression, marital status or genetic information in its programs or activities, including employment, admissions, and educational programs. Inquiries may be directed to the Vice Provost for Equal Opportunity & Employment Diversity, Title IX and ADA Coordinator, Equal Opportunity Office, Western Washington University, Old Main 345, MS 9021, 516 High Street, Bellingham, WA, 98225; 360-650-3307 (voice) or 711 (Washington Relay); eoo@wwu.edu.

Please see Appendix A - WWU Policies on Equal Opportunity/Nondiscrimination, Affirmative Action, Sex, Discrimination, Including Sexual Misconduct, and Reasonable Accommodation, and Appendix H - WWU Administrative Procedures A. Discrimination Complaint Procedure.

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# Western Washington University

## Active Minds Changing Lives

### Vision

Western Washington University will build a stronger Washington by being an international leader in active learning, critical thinking, and societal problem solving.

### Mission

Western Washington University serves the people of the State of Washington, the nation, and the world by bringing together individuals of diverse backgrounds and perspectives in an inclusive, student-centered university that develops the potential of learners and the well-being of communities.

### What is Western?

- Exceptional faculty and students engaged in leading edge intellectual inquiry.
- Liberal arts are the core strength of our academic programs.
- High quality academic programs are central to our mission.
- A place to build professional skills and abilities.
- Research, scholarship, and creative endeavor are fundamental to the Western experience.
- An environment that welcomes and embraces diversity
- Committed to open, passionate, and civil discourse, leading to transparent and well-informed decision-making.
- Responsible stewards of resources.
- Distinguished by a sense of place and community.
- A collaborative environment where faculty, staff, and students contribute to the mission of the University.
- Bringing the world to Washington and Washington to the world.

### Character

- **Engaging** - An immersive and dynamic approach in everything we do.
- **Inviting** - Inclusive and supportive.
- **Distinctive** - An academic environment that inspires innovative learning and commitment to a purposed life.

- **Adventurous** - Thriving on new challenges, fearless pursuit of dreams.
- **Collaborative** - Interactive learning, up close and personal, with faculty and staff.

### Positioning Statement

For ambitious, open-minded learners, Western is the premier undergraduate-centered university that fosters a dynamic collaborative environment at an intimate scale, where students fully engage, reveling in the freedom to develop their intellectual potential and achieve their personal goals.

### Reasons to believe

- Academic excellence
- Passion for boundless learning and exploration
- Personal engagement in one's education
- Collaboration between students and faculty
- Welcoming and supportive community
- A place to develop leaders and global citizens
- Spectacular location and natural environment

### Who we are

Western welcomes students at the front door of discovery. We invite you to connect, create and join in community with others who thrive on learning. Students and faculty are fully engaged here, working side-by-side to develop new ideas that challenge our understanding of ourselves and our world. We think of education as an adventure. So go ahead and immerse yourself and forge your own path to the future. You will make your mark here and go on to lead the positive change you want to see in the world.



# UNIVERSITY CALENDAR 2016-2017

September 2016						
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 Holiday

 First day of class

## 2016-17 ACADEMIC YEAR\*

### Fall Quarter 2016

September 21 (Wednesday)  
8 a.m., classes begin \*\*

November 11 (Friday)  
Veteran's Day holiday

November 24 to November 25  
(Wednesday, November 23 no classes, University open)  
Thanksgiving recess

December 5-9  
Final examination week  
December 10 (Saturday)  
Commencement

### Winter Quarter 2017

January 3 (Tuesday)  
Registration for new freshmen

January 4 (Wednesday), 8 a.m.  
Classes begin\*\*

January 16 (Monday)  
Martin Luther King, Jr., Day holiday

February 20 (Monday)  
Presidents Day holiday

March 13-17  
Final examination week

March 18 (Saturday)  
Commencement

### Spring Quarter 2017

March 27 (Monday)  
Registration for new freshmen

March 28 (Tuesday), 8 a.m.  
Classes begin\*\*

May 29 (Monday)  
Memorial Day holiday

June 5-9  
Final examination week

June 10 (Saturday)  
Commencement

### Summer Quarter 2017

June 20 to July 28  
Six-week session

June 20 to August 18  
Nine-week session

June 20 (Tuesday)  
Classes begin\*\*

July 4 (Tuesday)  
Independence Day holiday

August 19 (Saturday)  
Commencement

\*This calendar is subject to change. Dates appearing in admissions or registration or employee instructions take precedence over those in the University catalog.

\*\*Some extension programs have varying start dates. Check with the site or program office to verify date classes begin.

# RELIGIOUS OBSERVANCE 2016-2017

In recognition of the diversity of our campus community and to assist with planning the academic year, the following religious holidays and days of observance are provided for your reference. The Registrar's Office recommends that students communicate early with their faculty if they may be absent from class in observance of a religious holiday. Flexibility with academic attendance policies is supported and encouraged. If you have any questions please contact the Registrar.

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July 2017						
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August 2017						
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## Fall Quarter 2016

- Eid al-Adha, Sept. 13
- Rosh Hashana (New Year), Oct. 3
- Yom Kippur (Day of Atonement), Oct. 12
- Sukkot (Feast of Tabernacles), Oct. 17-24
- Birth of the Báb, Oct. 20
- Shmini Atzeret/Simchat Torah, Oct. 24
- Birth of Bahá'u'lláh, Nov. 12
- Day of Covenant, Nov. 29
- Mawlid-al-Nabi (Mohammad's birthday), Dec. 12
- Hanukkah (Chanukah), Dec. 25-Jan. 1
- Christmas (Birth of Jesus), Dec. 25
- Kwanzaa, Dec. 26-Jan. 1

## Winter Quarter 2017

- Orthodox Christmas, Jan. 7
- The Nineteen Day Fast, March 2-20
- Naw Ruz (New Year), March 21

## Spring Quarter 2017

- Passover (Pesach), April 11-18
- Good Friday, April 14
- Easter, April 16
- First Day of Ridvan, April 21
- Ninth Day of Ridvan, April 29
- Twelfth Day of Ridvan, May 2
- Declaration of the Báb, May 23
- Beginning of Ramadan, May 27
- Ascension of Bahá'u'lláh, May 29
- Shavuot, May 31

## Summer Quarter 2017

- Lailat Ul Qadr, June 21
- Edi al-Fitr (End of Ramadan), June 26
- Martyrdom of the Báb, July 9

\*This calendar is subject to change. Last updated on July 18, 2016.



First day of class



Finals week

# The University

Western Washington University is situated in Bellingham, a city of 82,310 overlooking Bellingham Bay and many of Puget Sound's 172 San Juan Islands. The University is 90 miles north of Seattle, 55 miles south of Vancouver, British Columbia, Canada, and an hour's drive from Mount Baker.

Since the first class of 88 students entered New Whatcom Normal School in 1899, the school has grown into the third largest institution of higher education in the state. The Normal School became Western Washington College of Education in 1937, Western Washington State College in 1961, and achieved university status in 1977.

## Academic Programs and Degrees

Western Washington University is organized into a Graduate School and seven undergraduate colleges: the College of Business and Economics, the College of Fine and Performing Arts, Fairhaven College of Interdisciplinary Studies, the College of Humanities and Social Sciences, Huxley College of the Environment, the College of Science and Engineering, and Woodring College of Education.

To fulfill its academic objectives, Western's curriculum includes a program of broad general education; intensive studies designed to develop scholarly competence in the arts and sciences; professional programs for both public school personnel and a variety of other professionals; and graduate programs in professional education, the arts, the sciences, humanities, and business areas.

Western's undergraduate and graduate programs lead to the following degrees: Bachelor of Arts, Bachelor of Arts in Education, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Bachelor of Science in Nursing, Master of Arts, Master of Business Administration, Master of Education, Master of Fine Arts, Master of Music, Master in Teaching, Master of Science, and Master of Professional Accounting.

## Extended Education

Extended Education at Western had its beginnings in 1912 when the first home study courses were created for country teachers. Fast forward to the 21st century where Extended Education has expanded and diversified WWU offerings in Bellingham and throughout the Puget Sound region, emphasizing community college partnerships in Seattle, Everett, Port Angeles, Bremerton, and Poulsbo to deliver degree and learning options for all ages.

As part of Western's commitment to serve the citizens of Washington, Western collaborated with Olympic College in 2013 to establish the Western Washington University Center at Olympic College to better serve the community and businesses on the Kitsap and Olympic Peninsulas. Western on the Peninsulas strives to meet the growing demand of the community by offering degree programs from the College of Business and Economics, College of Humanities and Social Sciences, Huxley College of the Environment, the College of Science and Engineering, and Woodring College of Education.

Extended Education connects learners of all ages to the Western Experience by collaborating with colleges, departments and the community, linking university resources with educational needs and opportunities both on and off campus, including international education opportunities.

All of Western's extension programs, credits and degrees meet the same requirements as regular Western programs unless otherwise noted. Please see the Extended Education section of this catalog for detailed information on our program offerings and site locations.

## Accreditation

The University is accredited by the Northwest Commission on Colleges and Universities to offer work at the bachelor's and master's degree level. The following colleges, departments and/or programs are also accredited:

- **Chemistry** — American Chemical Society, 1155 Sixteenth St. N.W., Washington, D.C. 20036;
- **College of Business and Economics** — AACSB International-The Association to Advance Collegiate Schools of Business, 777 South Harbour Boulevard, Suite 750, Tampa, FL 33602-5730;
- **Communication Sciences and Disorders** (graduate program in speech language pathology) — American Speech-Language-Hearing Association's Council on Academic Accreditation, 2200 Research Boulevard, Rockville, MD, 20850-3289; and National Council for the Accreditation of Teacher Education (NCATE), 2010 Massachusetts Avenue N.W., Suite 500, Washington, DC 20036-1023.
- **Community Health** — SOPHE/AAHE Baccalaureate Approval Committee (SABPAC), Society for Public Health Education, 10 G Street NE, Suite 605, Washington, DC, 20002.
- **Computer Science** — Computing Accreditation Commission of Accreditation

Board for Engineering and Technology, Inc., [www.abet.org](http://www.abet.org);

- **Electronics Engineering Technology, Manufacturing Engineering Technology, and Plastics Engineering Technology**— Technology Accreditation Commission of Accreditation Board for Engineering & Technology, Inc., [www.abet.org](http://www.abet.org);
- **Industrial Design** — National Association of Schools of Arts and Design, 11250 Roger Bacon Dr., Suite 21, Reston, VA 20190;
- **Music** — National Association of Schools of Music (NASM), 11250 Roger Bacon Drive #21, Reston, VA 20190;
- **Psychology** (mental health and school counseling master's degree programs) — Council for Accreditation of Counseling and Related Educational Programs, 1001 North Fairfax Street, Suite 510, Alexandria, VA 22314; National Council for the Accreditation of Teacher Education (NCATE), 2010 Massachusetts Avenue N.W., Suite 500, Washington, DC 20036-1023; and the Washington State Professional Educator Standards Board, P.O. Box 47236, Olympia, WA 98504-7236;
- **Recreation** — Council on Accreditation of Parks, Recreation, Tourism and Related Professions, National Recreation & Park Association, 22377 Belmont Ridge Rd., Ashburn, VA 20148
- **Woodring College of Education** — National Council for the Accreditation of Teacher Education (NCATE), 2010 Massachusetts Avenue N.W., Suite 500, Washington, DC 20036-1023; and program approval by the Washington State Professional Educator Standards Board, P.O. Box 47236, Olympia, WA 98504-7236 (teacher education and educational administration programs); Council on Rehabilitation in Education, 1699 Woodfield Road, Suite 300, Schaumburg, IL 60173; (rehabilitation counseling program); program approval by the Washington State Department of Health, Nursing Care Quality Assurance Commission, P.O. Box 47864, Olympia, WA 98504-7877 and Commission on Collegiate Nursing Education, One Dupont Circle NW, Suite 530, Washington, D.C., 20036-1120 (nursing RN-to-BSN program).

The University holds membership in the Council of Graduate Schools in the United States and the Western Association of Graduate Schools.

## Assessment

As part of an ongoing effort to assure the quality of the education received by its students, Western Washington University conducts a comprehensive assessment program designed to monitor and continually improve student learning. This assessment program conforms with guidelines established by the state's Higher Education Coordinating Board. From time to time students may be asked to participate in outcomes assessment by completing satisfaction surveys, sitting for achievement examinations, compiling portfolios of their academic work, or evaluating their own work and the quality of instruction in their classes. The purpose of all such assessment activities is to monitor and continually improve the quality of Western's academic program.

Students are strongly encouraged to participate in these assessment efforts. Participants can be assured that assessment results are always treated with the strictest professional confidentiality.

## Research

The Office of Research and Sponsored Programs (RSP) encourages, facilitates, and supports faculty and student research, creative activities, and scholarly pursuits. Through pre-award, post-award, and compliance, RSP assists faculty and students in areas vital for success in their scholarly endeavors. Pre-award supports individuals and teams during the proposal writing and submission phase, while post-award is responsible for the fiscal management of funded projects. RSP's compliance area focuses on the ethical conduct of research, includes support for human subjects and animal research, and administers university policies in these areas. RSP works closely with Contracts Administration to ensure intellectual property issues, right to publish, and areas important to scholarly pursuits and academic freedom are appropriately established for each project. RSP also provides internal funding in support of scholarly endeavors for faculty and students.

A variety of external sponsors has made awards to support faculty research, curricular development, and student research. Examples of sponsors include: the National Institutes of Health, National Endowment for the Arts, National Science Foundation, U.S. Department of Agriculture, National Oceanic and Atmospheric Administration, Department of Education, Department of Transportation, the Corporation for National and Community Service, Environmental Protection Agency, Canadian Embassy, National Endowment for the Humanities, U.S. Forest Service, American Chemical Society, National Park Service, U.S.



Department of Defense, U.S. Small Business Administration, National Aeronautics and Space Administration, The Research Corporation, the Murdock Charitable Trust, the Joint Center for Aerospace Technology Education, the Department of Health and Human Services, Tetra Tech, the Stillaguamish Tribe of Indians, the John Templeton Foundation, the Nature Conservancy, C and D Zodiac, the Huntington Society of Canada, Salish Kootenai College, Evolving Earth Foundation, Batelle Pacific NW Pacific National Lab, and various other local agencies and agencies of the state of Washington.

## Equal Opportunity Office

Western Washington University, in compliance with applicable laws and in furtherance of its commitment to fostering an environment that welcomes and embraces diversity, does not discriminate on the basis of race, color, creed, religion, national origin, sex (including pregnancy and parenting status), disability, age, veteran status, sexual orientation, gender identity or expression, marital status or genetic information in its programs or activities, including employment, admissions, and educational programs. Students, faculty or staff who believe they have been treated unfairly based on a legally protected characteristic may contact the Equal Opportunity Office (EOO) for advice and assistance. The EOO works to mediate discrimination concerns, if possible, and investigates and resolves formal complaints should they be filed.

The Vice Provost for Equal Opportunity serves as the campus Title IX Coordinator and ADA Coordinator. Sexual violence (including sexual assault, domestic violence, dating violence and stalking) is prohibited by Title IX and violates civil rights and criminal law. Survivors of sexual violence have the right to file a discrimination complaint and seek assistance from the EOO.

The EOO provides training to the campus community on sexual harassment prevention and a wide variety of other EO and diversity related topics. The office also works to increase access to WWU employment for people of color, women, people with disabilities, and veterans who have historically faced barriers to employment opportunities. Inquiries may be directed to the Vice Provost for Equal Opportunity & Employment Diversity, Title IX and ADA Coordinator, Equal Opportunity Office, Western Washington University, Old Main 345, MS 9021, 516 High Street, Bellingham, WA 98225; 360-650-3307 (voice) or 711 (Washington Relay); eoo.wvu.edu.

## Academic Facilities

The main campus and its 91 buildings occupy 215 acres along Sehome Hill overlooking Bellingham Bay and downtown Bellingham. Other University properties, such as the marine laboratory at Shannon Point in Anacortes, support regional educational and conservancy programs.

In addition, off-campus courses and programs are held at various sites. The University has on-campus residence halls and student apartments for more than 4,000 students.

The beautiful natural setting of the main campus and its award-winning architecture make Western Washington University a stimulating place for work and study.

## Western Libraries

Western Libraries and its Learning Commons partners provide vibrant physical and virtual learning spaces for faculty, staff, and students to interact with information and with each other. The range of library support includes individual and collaborative study spaces, online learning modules, access to computer and digital media technology, research and writing assistance, and many other services designed for students pursuing coursework in Bellingham and on Western's other campuses.

The Western Libraries is committed to quality collections - over 1.5 million books, journals, government documents, maps, audio recordings, videos, and other media funded by an annual budget of just over \$2.2 million. Special collections include University and local history, children's and teen literature, and Pacific Northwest Studies. The Libraries also provides access to extensive online databases and other electronic resources, many with full-text access, available from campus or from home 24/7. Membership in the Orbis Cascade Alliance, a regional consortium of 39 academic libraries, supplements Western's collections.

Engaging human, physical, and virtual resources, the Libraries contribute to the academic success and lifelong learning of Western's students, staff, and faculty by offering for-credit courses, individualized instruction sessions, expert research and writing support, and meaningful dialog designed to advance teaching and learning.

## Academic Technology & User Services (ATUS)

Upon a student's online activation of his or her Universal ID and Password, key resources become available, including the MyWestern portal, the

## THE UNIVERSITY

WWU network and WWU wireless network, use of more than 20 general university computer labs and numerous departmental labs with scanners and printers, residence hall computer labs, and the Student Technology Center (STC).

General university computer labs are open 24 hours per day, 7 days per week during the academic year, and provide general use software for Windows and Macintosh users. In addition, academic departments provide computer and software resources which are specific to the needs of students in their disciplines.

The Student Technology Center offers classes in the use of software, multimedia tools, and website development, in addition to printing of specialized materials for academic coursework.

Laptop computers for use on the wireless network may be borrowed at Wilson Library, Viking Union and several other campus locations. Multimedia equipment is available for checkout at ATUS Classroom Services and the STC.

The ATUS Help Desk, Haggard Hall 123 provides computer and software support to all campus communities. The Help Desk staff can be called at 360-650-3333.

### **University Public Art Collection and Western Gallery**

The historic precedent of establishing public art on a university campus as early as 1957 and the prominence of the artists in Western's Outdoor Sculpture Collection make this University and its specific art works widely known beyond the Northwest. Considered one of 10 acclaimed university collections in the United States, Western's sculpture collection spans the last half of the 20th century and is integrated with the terrain and campus architecture. The collection includes large-scale works by international, national and regional artists such as Magdalena Abakanowicz, Alice Aycock, Scott Burton, Anthony Caro, Nancy Holt, David Ireland, Donald Judd, Robert Morris, Bruce Nauman, Isamu Noguchi, Tom Otterness, Beverly Pepper, Richard Serra, Mark di Suvero, George Trakas and Ulrich Rückreim. Since 2012 the sculpture collection also includes interior works by such artists as Do Ho Suh, Rebecca Cummins & Paul DeMarinis, Claude Zervais and Cris Bruch. Website information and a brochure are available to students and visitors who wish to learn about these works. The collection is administered by a curator and an advisory board. Acquisitions are made through a thoughtful process ensuring a standard of high quality and cultural relevance while maintaining the integrity of a late 20th century and early 21st century sculpture collection of international interest.

The Western Gallery, in a wing of the Fine Arts Complex in the center of campus, has 4,500 square feet of exhibition space with sophisticated environmental controls. The gallery features temporary art exhibitions of a diverse character appropriate to our pluralistic society. As part of the educational programs of the gallery, lectures during major exhibitions are scheduled involving a variety of scholars. The contemporary art exhibitions and forums offer students the opportunity to cross reference works of art with the discourse of various disciplines.

### **Shannon Point Marine Center**

Located on an 87-acre campus in Anacortes, Washington, the Shannon Point Marine Center (SPMC) provides facilities and programs that support the study of marine science on the part of students and faculty from throughout the University. Winner of the 2002 Presidential Award for Excellence in Science, Math and Engineering Mentoring, SPMC provides an outstanding hands-on experiential learning experience on the coast and an opportunity to engage in special programs supporting independent study and research. Undergraduate courses at the marine lab are offered primarily through the Biology and Environmental Sciences Departments, but also occasionally through other departments and colleges at Western. The Master's of Science students who participate in the Marine and Estuarine Science Program, offered through the Department of Biology and Huxley College of the Environment, take courses and engage in thesis research at the Marine Center. The National Science Foundation sponsors a summer Research Experiences for Undergraduates (REU) program, which can be applied to by Western undergraduate students and by others from around the nation.

Only an hour's drive from the main campus in Bellingham, SPMC's facilities are designed to provide the most up-to-date opportunities for study of marine science on the part of both undergraduates and graduate students. Included is a well-equipped academic vessel fleet that provides ready access to the rich marine environment in the waters surrounding SPMC and a sophisticated analytical instrumentation base that provides students distinctive opportunities for education in the principles of marine science and training in the application of modern field and laboratory investigative techniques.

The SPMC campus provides extensive marine habitat for field and laboratory study, with the Mosquito Pass Study Site on San Juan Island providing additional sites useful for comparative studies. A running seawater system brings the marine environment into the controlled conditions on the laboratory to facilitate study of marine

plants and animals. There are housing and shared kitchen facilities for 24 people. The Shannon Point Marine Center of Western Washington University also provides a marine outlet for the SPMC Consortium that includes Skagit Valley College, Edmonds Community College and Everett Community College.

## Enrollment and Student Services

The Division of Enrollment and Student Services advances Western's commitment to Active Minds Changing Lives by engaging and challenging students in their pursuit of academic and personal excellence through outreach, support services, and co-curricular learning opportunities. The division's mission, goals, and priorities align closely with Western's mission and goals, as set forth in the WWU Strategic Action Plan. Working collaboratively, departments in the division play a key role in bringing together an increasingly diverse and talented student body that involves its members in active learning and reflection. Division departments also create opportunities for students to display leadership, social responsibility, and effective citizenship through co-curricular programs, and are strongly committed to facilitating students' development.

Programs and services offered by the division include admissions, registration, residence hall life, academic and career development services, tutoring, financial aid, disability resources, dean of students/student assistance services, student activities, dining services, new student and family programs, counseling, health and wellness services, recreation programs, student outreach services, the bookstore, and athletics.

## Office of the Vice President for Enrollment and Student Services

Old Main 445, 360-650-3839  
[www.wvu.edu/vpress/vpoffice.shtml](http://www.wvu.edu/vpress/vpoffice.shtml)

The Vice President's Office is the central administrative office for the Division of Enrollment and Student Services. The vice president and staff provide leadership to ensure that the ongoing needs of students at Western are addressed. This is accomplished by maintaining effective student-centered programs and services, working closely with academic departments to create an integrated and comprehensive student experience, and assessing students' needs and concerns. Students with general questions regarding university policies, procedures, and resources may contact the Vice President's Office for assistance.

### Your Right-to-Know: Disclosure of Consumer Information

Western Washington University is committed to providing full disclosure of all consumer information required by state and federal law to all students, their family members, and members of the campus community. A summary of required information, and where to access it, is as follows:

Information	Where to Find It
Accredited Departments and Programs	<a href="http://catalog.wvu.edu/content.php?catoid=11&amp;navoid=2037#Accreditation">catalog.wvu.edu/content.php?catoid=11&amp;navoid=2037#Accreditation</a>
Alumni Employment Rates	<a href="http://www.wvu.edu/careers/">www.wvu.edu/careers/</a>
Athlete Completion Rates	<a href="http://www.wvuathletics.com/ot/academic-excellence.html">www.wvuathletics.com/ot/academic-excellence.html</a>
Diversity at Western	<a href="http://www.wvu.edu/diversity/">www.wvu.edu/diversity/</a>
Financial Aid Information	<a href="http://www.finaid.wvu.edu/client_services/">www.finaid.wvu.edu/client_services/</a>
Graduation and Transfer Rates	<a href="http://west.wvu.edu/factbook/">west.wvu.edu/factbook/</a>
Measles Immunity Requirement	<a href="http://www.wvu.edu/chw/student_health/measles.shtml">www.wvu.edu/chw/student_health/measles.shtml</a>
Policy on Alcohol and Other Drugs	<a href="http://www.wvu.edu/policies/docs/7000-9000%20Enrollment%20&amp;%20Student%20Services/POL-U7400.01%20Alcohol%20&amp;%20Other%20Drugs%20Policy.pdf">www.wvu.edu/policies/docs/7000-9000%20Enrollment%20&amp;%20Student%20Services/POL-U7400.01%20Alcohol%20&amp;%20Other%20Drugs%20Policy.pdf</a>
Policy on Using Copyrighted Materials	<a href="http://west.wvu.edu/atus/helpdesk/FileSharing.shtml">west.wvu.edu/atus/helpdesk/FileSharing.shtml</a>
Privacy of Student Records	<a href="http://www.wvu.edu/policies/docs/7000-9000%20Enrollment%20&amp;%20Student%20Services/POL-U7100.01%20Student%20Records%20Policy%20%28WAC%29.pdf">www.wvu.edu/policies/docs/7000-9000%20Enrollment%20&amp;%20Student%20Services/POL-U7100.01%20Student%20Records%20Policy%20%28WAC%29.pdf</a>
Services and Activities Fee	<a href="http://www.wvu.edu/vpress/fees.shtml">www.wvu.edu/vpress/fees.shtml</a>
Services for Students with Disabilities	<a href="http://www.wvu.edu/depts/drs">www.wvu.edu/depts/drs</a>
Student Rights and Responsibilities	<a href="http://www.wvu.edu/dos/office/conduct/index.shtml">www.wvu.edu/dos/office/conduct/index.shtml</a>
Transfer of Credit Policies	<a href="http://admissions.wvu.edu/international/transfer-credit-policies">admissions.wvu.edu/international/transfer-credit-policies</a>
Tuition Waivers	<a href="http://www.wvu.edu/sbo/tuition-waivers.shtml">www.wvu.edu/sbo/tuition-waivers.shtml</a>
Voter Registration Information	<a href="http://www.sos.wa.gov/elections/default.aspx">www.sos.wa.gov/elections/default.aspx</a>



## Emergency Response and Evacuation Procedures

Western recognizes its responsibility to provide timely information to the campus community during emergencies. In the event of a significant emergency or dangerous situation involving an immediate threat to the health or safety of students, staff or faculty, the university will use every communication tool at its disposal to share information with the campus community as quickly as possible. These include, but are not limited to:

- The Western Washington University home page ([www.wvu.edu](http://www.wvu.edu)),
- The Emergency/Storm Hotline (360-650-6500),
- The WWU Emergency Communications web site ([www.wvu.edu/emergency/](http://www.wvu.edu/emergency/)); and/or
- The Western Alert emergency notification system.

Emergencies may be reported to University Police by dialing 3911 from a campus phone or 360-650-3911 from a non-campus phone or cell phone.

## "Western Alert" Emergency Notification System

The Western Alert emergency notification system gives Western the ability to share health and safety-related emergency information with members of the campus community quickly — by desktop notification, cell phone text messages and e-mail alerts. Students, faculty and staff are automatically "opted in" to receive Western Alert text messages if cell numbers are provided. (E-mail alerts will be sent to your official university account automatically).

To update cell phone information, students, faculty, and staff can login to their myWestern account online at [www.wvu.edu](http://www.wvu.edu) and click on "Web4U." Select "Personal Information," then "Cell Phone — View/Update." Update your cell phone number, and finish by pressing the "Update" button. Text messaging will only be used to communicate with you in two circumstances: during an emergency and during occasional tests of the Western Alert system.

## Academic and Career Development Services

WWU's Academic and Career Development Services department is committed to helping students succeed in their academic pursuits at Western, and to achieve their personal and professional goals. Academic and Career

Development Services is comprised of three units: the Academic Advising Center, the Career Services Center, and the Tutoring Center. The integrated services offered by these three units are focused on providing:

- Accurate and accessible advising to help students establish their academic goals and make effective plans to meet graduation requirements;
- Tutoring support to help students develop their critical thinking skills, work collaboratively to solve problems, and build confidence and self-efficacy in order to achieve their highest academic potential; and
- Career services to help students relate academic decisions to career goals, gain career-related experience, and transition successfully to graduate/professional education or career employment after completing their studies at Western.

## Academic Advising Center

Old Main 380, 360-650-3850  
[www.wvu.edu/advising](http://www.wvu.edu/advising)

The Academic Advising Center focuses on supporting first year freshman and transfer students, students who are undecided about their academic goals, and students experiencing academic difficulties. The center helps students:

- Set academic goals and make academic plans
- Understand academic policies, General University Requirements (GUR), and graduation requirements
- Explore Western's curriculum
- Choose majors consistent with interests and abilities
- Select and schedule courses to make effective progress in meeting GUR's and gaining access to desired majors
- Address challenges impeding academic progress

## Career Services Center

Old Main 280, 360-650-3240  
[www.wvu.edu/careers](http://www.wvu.edu/careers)

The Career Services Center provides a full range of services to assist students in all stages of the career development process - from self-assessment and initial academic and career planning to the job search process.

All Western students, regardless of degree or college, are encouraged to seek and use the

## ENROLLMENT AND STUDENT SERVICES

Career Services Center early in their university experience.

### Career Planning Services

Career planning services focus on helping students select academic majors consistent with their interests, abilities, and personal goals. Individual counseling, career assessments, workshops, and resource materials are provided to assist students in:

- Assessing interests, personality characteristics, skills, and values as they relate to academic and career decision-making
- Exploring career and job market trends
- Relating career goals to educational options

### Internship Services

Internships provide an opportunity for students to gain valuable career-related experience by expanding their education into the work world. Internships allow students to put classroom theory into practice, test preliminary career choices, and gain valuable experience and contacts to enhance their employment opportunities after graduation.

The Career Services Center provides online listings of internship openings and advises students seeking internship opportunities. The center's fall internship fair, quarterly career fairs, and on-campus recruiting program provide opportunities for students to connect with employers recruiting for interns.

### Job Search Services

The Career Services Center offers a variety of services to assist students in identifying job opportunities and developing the skills necessary to conduct an effective job search, including:

- Individual job search counseling
- Workshops and online resources on résumé writing, job search correspondence, and interview techniques
- On-line job listings
- On-campus interviews
- Job market and salary information
- Mock interviews

### Special Programs

The Career Services Center offers three career fairs each year during the fall, winter, and spring quarters. Other special programs offered annually include: the Health Professional and Graduate School Information Fair, the Community Internship

and Volunteer Fair, the Law School Information Fair, the International Opportunities Fair, the Majors Fair (co-sponsored with the Academic Advising Center), the Communication Sciences and Disorders Special and Rehabilitation Services Career Fair, the Huxley Environmental Career and Internship Fair, Educator Job Search Seminars, and the Etiquette Dinner.

### Advising for Pre-Healthcare Professions

Pre-healthcare Advisors are available as early as freshman year to support students interested in pursuing careers in medicine, dentistry, optometry, pharmacy, veterinary medicine and other healthcare professions with:

- Individualized advising
- Curriculum planning and registration assistance
- Shadowing and volunteering connections
- Student club advising
- Listserv correspondence
- Professional school application support
- Mock interview service

A fall Health Professional and Graduate School Fair provides students direct interaction with admission representatives of professional programs of study.

### Advising for Students Considering Post-Graduate Study

The Career Services Center provides advising for students planning to pursue graduate or professional studies. Students are assisted in weighing the value of further study, exploring options, and preparing graduate/professional school applications through individual counseling, workshops, resource materials and information fairs.

Students interested in learning more about graduate programs at Western are encouraged to contact the Graduate School, Old Main 530, at 360-650-3170, or visit its website at [www.wvu.edu/depts/gradschool/](http://www.wvu.edu/depts/gradschool/).

### Career Services for Western Alumni

The Career Services Center provides services to alumni seeking to change jobs or careers. Alumni can receive automatic e-mails of job openings and participate in on-campus interviewing and workshops. Alumni are eligible to receive individual counseling and use the reference file service. Additional information is available online at [www.wvu.edu/careers/alumni.shtml](http://www.wvu.edu/careers/alumni.shtml).

## Tutoring Center

Learning Commons: Wilson Library 2 North, 360-650-3855  
www.wwu.edu/tutoring/

The Tutoring Center helps WWU undergraduates achieve their highest academic potential by providing a range of academic support services including drop-in tutoring, study skills appointments and presentations, and tutor-facilitated study groups.

### Drop-in Tutoring

Peer-to-peer tutoring support is offered 60 hours per week at the Tutoring Center in WL 280. Courses supported include, but are not limited to, most math and science General University Requirement (GUR) courses. Tutors help students to identify and articulate gaps in understanding, use quantitative and scientific reasoning to frame and solve problems, and make problems relevant to the course and to students' lives.

### Study Groups

Many high-demand courses are also supported by tutor-facilitated study groups. Study-group facilitators are tutors who did well in the course, and who usually have at least two quarters of drop-in tutoring experience as well as extensive training. Students participating in study groups are encouraged to work collaboratively and engage with the material.

### Study Skills Assistance

The Tutoring Center also helps students develop academic skills essential to a successful college career. Peer advisors offer one-on-one appointments as well as group presentations and workshops for skills such as time management, test taking, note taking, and textbook comprehension. Study skills appointment give students the opportunity to reflect on their individual learning preferences and to develop learning strategies that build on their personal strengths and goals.

### Resources

The Tutoring Center has numerous resources available to students. These include textbooks for many math and science GURs, answer keys, chemistry molecular model kits, scientific calculators, and other resources. Detailed quarterly calendars and weekly schedules are available in the Tutoring Center and on the Tutoring Center website.

## Admissions

Old Main 200, 360-650-3440  
admissions.wwu.edu

See the Undergraduate Admission section of this Catalog.

## Associated Students Bookstore

501 High St. 360-650-3655  
bookstore.wwu.edu

Western's Associated Students Bookstore, the official Western Washington University bookstore, operates much like a student cooperative. It keeps prices lower than the industry average and partners with student groups to support campus programs and activities. The AS Bookstore provides value by offering a number of services: discount prices on course materials; a wide selection of used textbooks; a textbook rental program; digital options and eBooks; a price comparison tool; general books; school, office, and art supplies; a variety of "Western Gear" sportswear and emblematic gifts; and more. Every quarter, the bookstore's website, [www.bookstore.wwu.edu](http://www.bookstore.wwu.edu), publishes the list of textbooks required for each class. You can use Bookit to place your order online, to rent your textbooks, or use Verba to compare the bookstore's new, used, eBook and rental prices with other online marketplace options. At the beginning of each quarter, our Charge-it purchasing program allows students to charge in-store and online purchases to their student account.

**Shopping at your local independent Western AS Bookstore keeps dollars on campus supporting student activities at Western.**

## Athletics

High Street Hall 25, 360-650-3109  
www.vikings.com

Intercollegiate athletics involves many students as participants and spectators. Men's sports include basketball, soccer, cross country, golf, and indoor and outdoor track and field. Women's sports include volleyball, soccer, cross country, basketball, indoor and outdoor track and field, golf, rowing, and softball. Western's athletic program is a member of the National Collegiate Athletic Association Division II, and the Great Northwest Athletic Conference. For ticket information, call 650-BLUE (2583).

Students are encouraged to join The Blue Crew, Western's student sports fan organization. There is

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no cost to join and free Blue Crew prizes are awarded to all Western students attending Viking athletic events. For further information, contact the Department of Athletics, Carver Gymnasium, at 360-650-3109, or visit Blue Crew on the Athletics Facebook page at [www.facebook.com/wwuathletics](http://www.facebook.com/wwuathletics) or at [www.vikings.com](http://www.vikings.com).

### Campus Community Coalition

Old Main 310, 360-650-6863  
[www.campuscommunitycoalition.com](http://www.campuscommunitycoalition.com)  
[www.wvu.edu/offcampusliving](http://www.wvu.edu/offcampusliving)

The mission of the Campus Community Coalition (CCC) is to promote working relationships and communication between the campus and community, and to enhance shared responsibility through collaborative education and problem solving. The Coalition's philosophy is that shared problems require shared solutions. Coalition partners include neighborhood associations, the Bellingham Police Department, the Washington State Liquor Control Board, rental property owners, City of Bellingham officials, Whatcom County Health Department, Whatcom Prevention Coalition, local bar owners, and students, faculty, and staff from Western Washington University, Whatcom Community College, Bellingham Technical College and Northwest Indian College. The Coalition has three main areas of focus:

- We work to engage and support students living off campus. The purpose of this work is to address quality-of-life issues affecting students and local residents in the neighborhoods.
- We work to promote a positive environment downtown where people are free to make safe and healthy choices. Through community involvement and shared responsibility, the **Hospitality Resource Alliance (HRA)** promotes sound business practices that influence customers to make healthy choices about their drinking and provides safe settings for informal public life that is essential to the community. The HRA supports the Advice on Tap crew, which consists of peer-aged teams that provide relevant messaging to bar patrons 21-25 years of age about safe and low-risk drinking choices.
- We work to increase networking opportunities and strengthen relationships among the varied partners and stakeholders of the CCC, to share relevant information and to achieve mutual goals. This includes promoting active partnerships

among the four area colleges in Whatcom County.

### Campus Recreation Services

Wade King Student Recreation Center SV138, 360-650-3766  
[www.wvu.edu/campusrec](http://www.wvu.edu/campusrec)

Campus Recreation Services provides each student, faculty, and staff member the opportunity to become actively involved in organized sports and recreation programs. Services provided by Campus Recreation include intramural sports, noncredit fitness classes, faculty/staff wellness, open recreation, nutritionist, athletic trainer, and sport clubs.

### Wade King Student Recreation Center

Offering a wide variety of fitness and leisure activities, the Wade King Student Recreation Center (SRC) is designed to meet the recreation needs of the campus community. The SRC offers students, alumni, faculty, and staff a dynamic and inviting place to stay fit. All undergraduate and graduate students currently enrolled in six or more credits automatically become SRC members by paying the mandatory student recreation center fee. Paid memberships are available for faculty/staff, spouses/dependents/partners, and alumni and affiliates. The center features a climbing wall; a three-court gym; three weight and cardio areas; an indoor jogging track; a multi-activity court for basketball, floor hockey, tennis, volleyball, and soccer; a six-lane lap/leisure pool and 32-person whirlpool; two group exercise rooms; an equipment checkout counter; and the Rock's Edge Café.

### Intramural Sports

Intramural sports are competitive and recreational activities designed to encourage participation by all members of the campus community. Leagues and tournaments are offered in a wide variety of sports and are generally played on campus or at nearby facilities. Various local, regional and national organizations co-sponsor events and provide opportunities for promotional materials, special prizes, and invitational playoff berths. Intramural sports are structured for different skill levels and conducted in a safe, supervised environment.

### Noncredit Fitness Classes

Noncredit fitness classes provide participants an opportunity to develop, grow, and maintain a healthy lifestyle in a fun and friendly atmosphere. Instructional classes include aerobics, Zumba, Pilates, cardio kickboxing, yoga, hip-hop dance,



step aerobics, water aerobics, and more. Classes are taught by qualified student and non-student instructors, and are designed with the individual differences of the student population in mind.

### **Sport Clubs**

WWU sport clubs are student organizations formed to promote non-varsity team sports and recreational activities. Sport clubs participate in intercollegiate and extramural competition at the local, regional, and national level while offering opportunities for instruction, skill development, and practice. Some of the sport club programs are co-recreational and allow members to be involved in scheduling and hosting events, arranging transportation and lodging, purchasing equipment and uniforms, and serving on the Sport Club Council. All WWU students, faculty, staff and alumni are eligible to become sport club members. Current WWU sport clubs include baseball, climbing, cycling, men's crew, equestrian, fencing, ice hockey, lacrosse, rugby, sailing, tennis, ultimate disc, volleyball, water polo, wakeboarding, water skiing and wrestling. Additional information is available online at [www.wvu.edu/campusrec/sportclubs.shtml](http://www.wvu.edu/campusrec/sportclubs.shtml).

### **Counseling, Health and Wellness Services**

[www.wvu.edu/chw](http://www.wvu.edu/chw)

Given what it takes to be successful in higher education - and later, in life and work - students have to be ready to learn in a state of physical, psychological, emotional, intellectual, social, and spiritual well-being. Mind, brain, and body must be in shape for and open to learning experiences. How prepared students are for learning determines how much and how well they learn, and influences persistence, retention, and graduation. We want every student who starts college to graduate, and every graduate to experience all that higher education can offer - so we must pay attention to students' well-being.

The Counseling Center, Prevention and Wellness Services, and the Student Health Center are dedicated to every student experiencing all that Western has to offer care for Western. Through utilization of quality services, students can learn ways to care about their own health and to improve and maintain their overall well-being so that personal, academic, and career goals may be achieved.

### **Counseling Center**

Old Main 540, 360-650-3164  
[www.wvu.edu/counseling/](http://www.wvu.edu/counseling/)

Western Washington University's Counseling Center staff is available to assist you with the life problems and emotional concerns that may arise while you are a student here at Western. We are fully experienced with common psychological concerns such as depression, bipolar disorder, anxiety disorders, attention deficit disorder, and eating or body image issues.

Students also use the services of the Counseling Center to help improve their lives through healthier relationships, better communication, greater understanding of self, strategies for self-care, and in making choices that are more consistent with their educational and personal goals.

We offer group counseling, short-term individual or couples' counseling, and psycho-educational workshops and classes to help students address their concerns and gain the skills to be successful at WWU. We also assist students by referring them to other services on campus and to community resources that can offer more specialized or longer-term help with problems and concerns. The center is open 8:30 a.m. - 4:30 p.m., Monday through Friday, when classes are in session and provides same-day appointments for students whose concerns are urgent. An after-hours counselor may be accessed by calling 360-650-3164 and selecting Option 1.

Our counseling staff includes psychologists, mental health counselors, and doctoral level trainees who work under the supervision of our professional staff. We work closely with the Student Health Center when psychotropic medication or medical attention is needed. Western's Counseling Center is accredited by the International Association of Counseling Services.

### **Prevention and Wellness Services**

Old Main 560, 360-650-2993  
[www.wvu.edu/pws](http://www.wvu.edu/pws)

Prevention and Wellness Services (PWS) offers Western students opportunities to get involved in improving their own health and the health of their community. PWS offers numerous professional and peer-led health promotion programs that can help students achieve optimal well-being and specific services to those who may face challenges to their well-being, such as alcohol and drug concerns or sexual assault.

Some of the services available to students include:

- Alcohol and drug-risk reduction consultation (ADCAS)
- Consultation and Sexual Assault Support (CASAS) and violence prevention services
- Off-campus housing registry

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- PWS Peer Health Educator program (volunteer involvement in health promotion and risk reduction with the Western community)
- Quitting tobacco support
- Sexual health consultation services
- Stress reduction
- Wellness Outreach Center – resource center for health information

### **Alcohol and Drug Consultation and Assessment Services (ADCAS)**

Old Main 560, 360-650-6865  
[www.wvu.edu/adcas](http://www.wvu.edu/adcas)

ADCAS is a confidential, professional service for Western Students who want assistance or information regarding their own use or someone else's use of alcohol, tobacco, or other drugs. ADCAS services are designed to assist students in making their own informed choices about alcohol, tobacco, and other drug use and related risks (personal, physical, social, academic and legal) so they can enjoy their college experience, maximize academic success, and minimize unwanted and unintended consequences. Specific individual services available to students include: one to one discussion of personal use issues, concerns about friends, family members, partners, or roommates, and referral to appropriate campus and community support, counseling or treatment resources.

Individual ADCAS services are provided by professional staff specializing in alcohol and drug concerns. Skilled Peer Health Educators and professional staff provide group-format services.

The use of alcohol and other drugs can have both immediate and long-term impact including increased health risks, increased risk for accidents, forced and/or regretted sex, poorer academic performance, regretted actions or social behavior, and possible legal sanctions. ADCAS services are designed to assist students in making accurately informed and thoughtful choices.

### **Consultation and Sexual Assault Support (CASAS) & Violence Prevention Services**

Old Main 585B, - Violence Prevention Coordinator  
360-650-7982  
Consultation and Sexual Assault Support Services (CASAS) 360-650-3700  
[www.wvu.edu/casas](http://www.wvu.edu/casas)

CASAS is Western's caring and compassionate resource to assist all students who have, in childhood, adolescence, or adult life, been affected by any of the following: sexual harassment, sexual assault, dating/domestic violence, or stalking.

CASAS staff works with survivors to access all available resources in an effort to ensure that students continue to be academically successful and have the support necessary to heal from the incident(s). Resources and support are also available to assist students whose partner, friend or family member has experienced an act of violence.

CASAS provides professional staff assistance to guide students through the details of identifying and accessing available campus and community services and resources, including:

- Medical/legal referral assistance
- Professional advocacy
- Academic support services
- Accompaniment to the hospital or police station
- Support group
- Information and referral

Anyone who has ever experienced any form of violence is strongly encouraged to utilize this service. To reach CASAS, call 360-650-3700, or send questions by e-mail to [casas@wvu.edu](mailto:casas@wvu.edu).

Western is fully dedicated to not only supporting survivors of many forms of violence, but also to creating and sustaining a safe environment where violence does not occur. We recognize that discussing the root causes of violence is a key component in prevention. You will find resources of support for those who have been touched by violence, as well as resources for how to become part of the solution on our website.

### **Off-campus Housing Registry**

[www.wvu.edu/offcampusliving/](http://www.wvu.edu/offcampusliving/)

The Off-campus Housing Listing Service allows students to find local housing. There are two services for off-campus housing: Prevention and Wellness Services has a website with an off-campus registry, and there is a bulletin board on the fifth floor of the Viking Union. Bulletin board listings may be made at the VU 5th floor Administration Desk in person between 8 a.m. and 5 p.m. Monday-Friday. The website has 24-hour login capacity for eligible users.

### **Sexual Health Consultation Service**

Viking Union 432, 360-650-7557  
[www.wvu.edu/pws/sexual\\_health\\_information\\_sessions.shtml](http://www.wvu.edu/pws/sexual_health_information_sessions.shtml)

Sexual Health Consultation Services provide one-on-one confidential information sessions available to all students. These sessions cover sexually transmitted infections and prevention, and tips on

how to talk with your partner, information on breast and testicular self-exams, birth control, and women's annual exams. These sessions are judgment free, tailored to fit specific student needs and free for WWU students.

To schedule an individual appointment, call 360-650-7557.

### Wellness Outreach Center

Viking Union 432, 360-650-4321  
[www.wvu.edu/pws/wellness\\_outreach\\_center.shtml](http://www.wvu.edu/pws/wellness_outreach_center.shtml)

The Wellness Outreach Center is a welcoming space dedicated to helping Western students improve their quality of life. The center specializes in helping students find the tools to optimize their health and wellbeing. The center houses a resource library with books, pamphlets and videos on all aspects of health including nutrition, body image, sexual health, alcohol and other drugs, mental health, and social justice issues. The center also offers free cold-care kits that include cold/flu risk reduction tips, condoms, and a Seasonal Affective Disorder (SAD) light. Many students come to the center for a stress-break—a cup of hot tea and a comfortable couch.

The Wellness Outreach Center is open from 10:00 a.m. - 4:00 p.m., Monday through Friday during the academic year. It is located in the Viking Union Room 432.

### Student Health Center

Campus Services Building 2nd floor, 2001 Bill McDonald Parkway, 360-650-3400  
[www.wvu.edu/chw/student\\_health](http://www.wvu.edu/chw/student_health)

The Student Health Center provides students with a broad range of primary medical care services including, but not limited to: evaluation and treatment of illness, contraceptive services, immunizations, mental health, sports medicine, evaluation/referral for specialized conditions, men's and women's health care, monitoring and treatment of chronic illnesses, rapid lab tests (such as strep, influenza, mono and pregnancy tests), preventive medicine, sexually transmitted disease testing and treatment, travel consultation, and well-physical exams. The center is staffed by a team of physicians, nurse practitioners, and support staff.

The Student Health Center is open from 8:30 a.m. - 4:00 p.m. on Monday, Tuesday, Wednesday, and Friday and from 9:30 a.m. - 4:00 p.m. on Thursday during the academic year when classes are in session. Please see the website for Summer Quarter hours. When the Student Health Center is

closed, a telephone consulting nurse is available at no cost and students are advised to seek clinical services from available after-hour medical facilities in the Bellingham area. **NOTE:** The University assumes no financial responsibility for care dispensed at other health care facilities. Students who seek treatment at off-campus health facilities must use private funds or their health insurance policy to cover resulting charges.

Please see the website [www.wvu.edu/chw/student\\_health/](http://www.wvu.edu/chw/student_health/) for medical insurance plan information. The medical director strongly recommends that all students have some form of health insurance to defray the substantial costs associated with serious accidents and illness.

### Measles Immunity Requirement

Western requires all students born after Jan. 1, 1957 to provide medical documentation of immunity to rubeola measles to the Student Health Center before they will be allowed to register for classes or live in on-campus housing. Acceptable options for documentation include:

- Provide the dates for two individual doses of measles vaccine (usually referred to as "MMR vaccine"). The doses must have been given: (1) after January 1, 1968, (2) at least 30 days apart, and (3) on or after 12 months of age; or
- Provide a copy of evidence of measles immunity by demonstrating high positive antibody levels from a blood test (rubeola titer). A copy of the actual test results is required.
- Request a waiver from the immunity requirement for legitimate religious, personal, or medical reasons. To request a waiver, call 360-650-4839 or visit the Health Center website at [www.wvu.edu/chw/student\\_health/measles.shtml](http://www.wvu.edu/chw/student_health/measles.shtml). The form requires verification from your current health care provider for medical requests. Please note: in the event of a measles outbreak, students with an approved waiver may be excluded from attending classes and living on campus.

Questions about the measles (rubeola) immunity requirement may be directed to the Student Health Center.

### Reporting Communicable Diseases

Western is committed to the ongoing health and safety of our campus community. Individuals who know or have reason to believe that they are infected with a communicable disease have an

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ethical and legal obligation to conduct themselves in ways that minimize exposure in order to protect themselves and others and to inform the appropriate university administrator. Students should contact the Student Health Center or the Office of the Vice President for Enrollment and Student Services if they have been diagnosed with a communicable disease.

Communicable disease shall include, but not be limited to:

- Chickenpox (varicella)
- Hepatitis
- Influenza
- Measles
- Meningitis
- Mumps
- Norovirus (viral gastroenteritis)
- Pertussis
- Severe Acute Respiratory Syndrome (SARS)
- Tuberculosis
- Ebola infection

Any employee, student, prospective student, volunteer or visitor who knowingly arrives from a country outside the United States that has been issued a Travel Health Warning by the Centers of Disease Control must contact the Student Health Center's Medical Director for medical clearance before being allowed on campus to attend classes, work or other activities.

Individuals with communicable diseases shall be excluded from enrollment or employment or restricted in their access to university facilities, programs or services if a medically based judgment, in an individual case, establishes that exclusion or restriction is necessary to ensure the health and safety of the infected individual and/or other members of the university community.

For a complete review of this policy, visit the University's Policy and Procedures website at [www.wvu.edu/policies/docs/1000%20University%20Administration/POL-U1000.12%20Reporting%20Communicable%20Diseases.pdf](http://www.wvu.edu/policies/docs/1000%20University%20Administration/POL-U1000.12%20Reporting%20Communicable%20Diseases.pdf)

### disAbility Resources for Students

Old Main 120, 360-650-3083 (voice), 360-255-7175 (VP)  
[www.wvu.edu/depts/drs](http://www.wvu.edu/depts/drs)

The primary mission of the disAbility Resources for Students is to ensure equal access for students with disAbilities to all curricular and co-curricular opportunities offered by Western Washington University. disAbility Resources for students

provides disability management counseling, enabling resources and referral information to enrolled students who possess a temporary or permanent disabling condition. disAbility Resources for Students (DRS) is committed to providing services and programs that foster student development at all levels: intellectual, emotional, physical, and social. Full participation in all aspects of university life is not only necessary to achieve this holistic development, but encouraged and supported by the DRS team.

- DRS provides reasonable accommodations in compliance with State and Federal laws.
- Students' records are treated with confidentiality.
- Students must complete a Needs Assessment with DRS in order to receive services.

For service eligibility, a complete diagnostic description from a qualified professional is required. Specific academic accommodations and services are determined on an individual basis and are modified to meet the unique needs of students and their academic experience. Once a student becomes eligible for accommodations through DRS, they are able to request accommodations each term through a secure web-based portal.

Services and programs offered through disAbility Resources for Students include, but are not limited to:

- disAbility management counseling
- Exam accommodations
- Interpreter services
- Alternative text
- Print enlargement
- Braille
- Academic advisement
- Academic adjustments in the classroom
- Mobility assistance
- Transcription services (Typewell, real-time captioning)
- Assistive listening devices
- Resource referral services

### Evacuation Guide

Western's Emergency Evacuation Guidelines for Persons with Disabilities is now available. Students are encouraged to obtain this publication and learn about preparing for an emergency on campus and establishing an individual written evacuation plan. The guide is available online at [www.wvu.edu/ehs/emergency\\_preparedness/emergencypreparedness.shtml](http://www.wvu.edu/ehs/emergency_preparedness/emergencypreparedness.shtml).



### Financial Aid

Old Main 265, 360-650-3470  
www.finaid.wvu.edu

See the Financial Aid section of this catalog.

### New Student Services/Family Outreach

Old Main 300, 360-650-3846  
nssf.o.wvu.edu

New Student Services/Family Outreach fosters student learning and development by supporting new students and family members in their transition to the academic, personal, and social experience of Western, as well as the greater Bellingham community. Programs and services provided include:

- Coordination of new student programs, services, and orientation, including Summerstart, Transitions, Western Welcome Week, Fall Orientation, quarterly orientation, and ongoing programs. Orientation provides students an opportunity to receive academic advising and course registration assistance, become familiar with services, meet faculty, staff and current students, and complete placement tests.
- Coordination of family orientation and outreach, including summer orientation programs, Fall Family Open House, Back2Bellingham, and the Parent Connection.
- Online and in-person referral to campus and community resources.
- Leadership opportunities for current students (orientation student advisors and student coordinators).

### Dean of Students Unit

Viking Union 547, 360-650-3450  
www.wvu.edu/depts/dos/

The Dean of Students Unit, led by the Dean of Students, supports Western Washington University's role and mission as follows:

**Mission Statement:** The Dean of Students Unit contributes to intentional student development by providing programs, services, and facilities that promote leadership, community engagement, citizenship, creative expression, student well-being, and the realization of personal and academic success.

The Dean of Students oversees the Office of Student Life, Student Outreach Services, L.E.A.D.S., Ethnic Student Center and the Viking Union Organization (Student Activities/Associated Student Governance, Outdoor Recreation, and Facilities & Services).

### Office of Student Life

Viking Union 506, 360-650-3706  
www.wvu.edu/depts/dos/office/

The Office of Student Life is dedicated to supporting the learning and development of students, and creating an environment that fosters students success and graduation. Our primary purpose is to ensure the well-being and success of Western students. We work closely with students (and their family members), faculty, and staff, in support of this purpose. We also collaborate with a number of campus departments, including the Counseling Center, Registrar's Office, Student Health Center, University Police, and University Residences.

Staff members in the office are available to provide general assistance with problem solving and referrals; to support students in crisis; to advise students on university policies and procedures, including the Student Rights and Responsibilities Code; and to process dean's letters and letters of recommendation.

We can assist students with:

- hardship withdrawals
- leaves of absence for non-medical emergencies
- advice on university policies, procedures, and grievances
- support while experiencing a crisis
- information on university resources

Common situations the Office of Student Life can help with include: academic grievances, frustrations with the administrative workings of the institution, and emergency leaves of absence or hardship withdrawals due to illness, injury, or the death or illness of a family member.

### Student Conduct

The Student Conduct Officer is charged with administering Western's student conduct system, as set forth in the Student Rights and Responsibilities Code. As a condition of enrollment at Western, all students are expected to assume responsibility for their actions, and for maintaining an environment conducive to the academic success, safety, and well-being of all members of the university community. The student conduct

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process is designed to be a learning experience, and to promote growth and understanding of one's rights and responsibilities as a Western student.

Alleged violations of the Code may be reported to the Assistant Dean of Students at 360-650-3706 or [student.life@wwu.edu](mailto:student.life@wwu.edu). Copies of the Student Rights and Responsibilities Code can be found in Appendix C of this catalog, in the Dean of Students Office, or online at [www.wwu.edu/dos/office/conduct/index.shtml](http://www.wwu.edu/dos/office/conduct/index.shtml).

### Student Outreach Services

Old Main 387, 360-650-3843  
[www.wwu.edu/depts/sos](http://www.wwu.edu/depts/sos)

Student Outreach Services supports the educational needs of all students, particularly first-generation, non-traditional and multicultural students. Professional academic advisors engage students in personalized academic coaching, peer mentoring and specialized programs using a global and multicultural focus to support student persistence and academic achievement. Advisors help develop educational plans and provide positive intervention for those in academic risk, including former students interested in returning to Western. Student Outreach Services also serves as a resource to the campus community on issues of diversity and student success. The office is committed to the academic success, retention, and graduation of all students.

### Ethnic Student Center

Viking Union 420, 360-650-7271  
[as.wwu.edu/esc/](http://as.wwu.edu/esc/)

The Ethnic Student Center serves as a cultural community hub for gathering and programming. Some of the 16 cultural clubs are: the African-Caribbean Club, Black Student Union, Brown Pride, Chinese Student Association, Filipino American Student Association, Hui `O Hawai'i, Japanese Student Association, Khmer Student Association, Korean Student Association, Latino Student Union, MEChA (El Movimiento Estudiantil Chican@ de Aztlan), Mixed Identity Student Organization, Native American Student Union, Queer People of Color, South Asian Student Association, Thai Student Association, and the Vietnamese Student Association.

### L.E.A.D.S. (Leaders Engage in Action, Discernment, & Skills-building)

Viking Union 506, 360-4187  
[www.wwu.edu/leads](http://www.wwu.edu/leads)

The mission of the program is to provide a campus environment where student leaders engage in action, discernment, and skills-building. Self-reflection, assessment, and the development of leadership skills are central. The L.E.A.D.S. program, open to all students, provides campus-wide programming:

- co-curricular leadership development support through open sessions, student government, residence life, and other campus units;
- leadership lectures, panels and events featuring alumni, parents and national/regional leaders;
- training of a cadre of peer leadership educators, LeaderCorps, who learn to teach leading to other students while deepening their own leadership knowledge and skills; and an electronic leadership portfolio process to enhance leadership of self-awareness, self-efficacy, and opportunities during college or transitioning to careers.

Additionally, the L.E.A.D.S. Program, in partnership with the Karen W. Morse Institute for Leadership, provides leadership education to a select group of incoming student leader-scholars, incorporating self-reflection, character strengths assessment, interaction with alumni, faculty, staff and administrators, leadership learning, and team-building.

### Viking Union

Viking Union 547, 360-650-3450  
[vu.wwu.edu](http://vu.wwu.edu)

As the community center of the campus, the Viking Union plays an integral role in students' out-of-class experience. The Union houses offices for the Associated Students' government, services and activities, and the Viking Union/Student Activities administrative office. Also located in the Viking Union are the Dean of Students and Student Life offices, meeting rooms, lounges, an outdoor equipment rental shop, a bicycle repair facility, several food service areas, a post office, an information center/Lost and Found, two cash machines, an art gallery, KVIK-TV, Vendors' Row, KUGS-FM, a publicity center/print shop, and program areas. Viking Union food service locations include the Viking Union Market, the VU Café, the Underground Coffeehouse, and Vendor's Row.

### Viking Union Event Services

[vu.wwu.edu/reservations/](http://vu.wwu.edu/reservations/)

Viking Union Event Services is the contact point for reserving space in the Viking Union, Lakewood's Bill MacDonald Lounge, Viqueen Lodge, and other outdoor spaces on campus. Event Services provides Associated Student-led events with support for reservations, planning, and event management on campus. Services include the setup, takedown, security, audio and visual event support provided by our student crews.

### **Student Activities/Associated Student (AS) Governance**

Viking Union 547, 360-650-3450  
[www.as.wvu.edu](http://www.as.wvu.edu)

Student activities at Western are designed to provide maximum opportunities for student engagement in a wide range of co-curricular experiences. As an important part of the educational experiences offered by the University, students are encouraged to become involved in some aspect of the activity program since these activities provide leadership and social experiences that build on classroom learning. Many student activities are initiated and administered by students through the Associated Students. Students who participate in the governing bodies of student-administered services, activities, and facilities gain valuable leadership experience while supporting the quality of co-curricular life. Students may also participate in the University governance system as elected or appointed members of its various councils and committees.

### **AS Personnel Office**

Viking Union 505, 360-650-6113  
[as.wvu.edu/personnel](http://as.wvu.edu/personnel)

The AS employs over 200 students in a variety of diverse and exciting jobs in all the AS offices listed below. The Personnel Office coordinates the hiring of AS employees and open positions are listed on the website. The bulk of hiring takes place at the very beginning of each spring quarter for the following academic year, and some positions are also open at the beginning of fall quarter or as there are vacancies throughout the year.

### **AS Productions**

Viking Union 422  
[as.wvu.edu/asp](http://as.wvu.edu/asp)

Associated Students Productions (ASP) provides a comprehensive program of student activities and events for all Western students and their community. There are six divisions of ASP: Pop Music, Films, Special Events, Underground Coffee

House, Viking Union Gallery, and Marketing. The students that staff these offices work hard to bring top-quality events to campus, including local, regional and national music performances, films, comedians, authors, lecturers, art exhibits, and all kinds of other fun and intellectually stimulating engagements.

### **AS Representation and Engagement Programs (REP)**

Viking Union 520, 360-650-4267  
[as.wvu.edu/rep](http://as.wvu.edu/rep)

The AS Representation and Engagement Programs provide the resources, services, and support necessary to ensure student representation in decisions that impact students at the university, local, state, and federal levels. The programs also promote effective citizenship and civic engagement through services, programs, and collaboration. The REP includes the AS Elections Coordinator, Legislative Liaison, Local Issues Coordinator, Vote Coordinator, Western Votes, and coordinates the appointment of students to nearly 150 spots on AS and University Committees.

### **AS Review**

Viking Union 411, 360-650-6126  
[as.wvu.edu/asreview](http://as.wvu.edu/asreview)

The AS Review is an alternative weekly that provides coverage of student interests such as the AS government, activities, and student life. The Review seeks to enhance the student experience by shedding light on underrepresented issues, inclusive coverage, informing readers, and promoting dialogue. The AS Review welcomes reader submissions.

### **AS Clubs and Organizations & The Club Hub**

Viking Union 425, 360-650-6121  
[as.wvu.edu/clubs/](http://as.wvu.edu/clubs/)

More than 230 clubs and organizations exist within the Associated Students, providing a wide range of involvement opportunities for all students. AS clubs come in all varieties, including service, environmental, recreational, academic/departmental, social issues, religious, cultural and ethnic, arts, music and dance, political, gaming, pre-professional and honorary, and special interest areas. Some clubs have long histories at Western; others are brand new. If a student doesn't find the right club, it is easy to start a new one. Students at Western enjoy being involved in clubs for the opportunities to meet new people, develop new skills, make positive changes

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in the world, and just have fun. The Club Hub serves as a resource for club leadership and organizational development, as well as event planning and programming. The Club Hub is committed to ensuring that all students can become involved and engaged in their Western Community.

### **Environmental & Sustainability Programs (ESP)**

Viking Union 424, 360-650-6129  
[as.wvu.edu/esp/](http://as.wvu.edu/esp/)

The purpose of the AS Environmental & Sustainability Programs (ESP) is to inform, educate, and provide resources regarding a variety of issues surrounding environmentalism and sustainable practices. The following offices comprise the ESP:

#### **Alternative Transportation**

Viking Commons 25, 360-650-7960  
[as.wvu.edu/transportation/](http://as.wvu.edu/transportation/)

Western Student Transportation provides services funded by the Student Alternative Transportation Fee. These include a WTA Viking Xpress Bus Pass good for all WTA bus routes, a daily late night and Sunday daytime Student Shuttle, and assistance for any questions students may have concerning transportation at Western.

#### **Environmental Center**

Viking Commons 424, 360-650-6129  
[as.wvu.edu/earth/](http://as.wvu.edu/earth/)

The Environmental Center presents lectures, seminars, music events and other programs to educate the campus community about environmental topics and to illustrate the interconnections between environmentalism and other social concerns. The Center maintains a library of current books, newspapers, brochures, videos and magazines and acts as a networking center for campus and community activists.

#### **Outback Outdoor Experiential Learning Program**

Viking Union 424, 360-650-2433  
[as.wvu.edu/outback/](http://as.wvu.edu/outback/)

The Outback, a joint program of the Associated Students and Fairhaven College, is a 5 acre farm and wetland restoration site. The purpose of the Outback OELP is to

coordinate a wide range of opportunities for students to learn about, develop, and implement sustainable land use practices. These opportunities include personal and collaborative events and projects involving habitat restoration, organic gardening, green building, academic partnerships, independent study projects (ISPs), workshops, lectures and classes. The OELP also provides job-related skill building and community networking opportunities for students. These include serving on the Outback Governing Council, volunteering, and participating in work-study, AmeriCorps Students in Service, and salaried employment.

#### **Sustainable Action Fund Fee Grant Program**

Viking Commons 25, 360-650-2491  
[www.wvu.edu/sustain/programs/saf/](http://www.wvu.edu/sustain/programs/saf/)

The Sustainable Action Fund (SAF) is a student-initiated, quarterly fee paid by all Western Washington University students to reduce the campus' environmental impact and engage the campus community in environmental awareness.

The SAF Grant Program provides funding to innovative, student-driven projects focused on promoting experiential learning opportunities and sustainable practices at Western Washington University. The SAF Grant Program is managed by the Office of Sustainability and supported by the AS Environmental and Sustainability Programs. Students, staff and faculty are all eligible to apply for grant funding. Projects funded through the SAF Grant Program aim to:

- Increase Student Involvement and Education
- Reduce the University's Environmental Impact
- Create an Aware & Engaged Campus Community

#### **KUGS Radio**

Viking Union 7th Floor, 360-650-KUGS (5847)  
[as.wvu.edu/kugs](http://as.wvu.edu/kugs)

Operated by the Associated Students, KUGS broadcasts in stereo at 89.3 on the FM dial, online at [as.wvu.edu/kugs/](http://as.wvu.edu/kugs/), and on Comcast Cable channel 980 on campus and throughout Western Washington. A general manager and student staff

coordinate the efforts of 100 volunteers in all facets of station operation. With a complete range of music, news, and educational programming, KUGS offers students opportunities for participation as disc jockeys, newsreaders, producers, and managers.

### **KVIK Associated Students Video Production Program**

Viking Union 423, 360-650-2343  
as.wvu.edu/kvik

Operated by the Associated Students, KVIK facilitates and creates original films and productions to showcase the work of WWU students. KVIK seeks to provide first-hand experience for those interested in the fields of primarily film and video production, as well as offering opportunities to gain experience in television broadcasting. KVIK productions represent students' original work and serve the Associated Students and the broader Bellingham community and beyond by providing interesting, entertaining, and informative media.

### **Resource and Outreach Programs**

Viking Union, 5th Floor  
as.wvu.edu/rop

The Resource and Outreach Program's seven offices – including the Disability Outreach Center, Legal Information Center, Veteran's Outreach Center, Women's Center, Social Issues Resource Center, Sexual Awareness Center, and Queer Resource Center – provide information, advocacy, activities, and peer education to Western students. The ROP strives to empower and support all members of WWU's diverse community. They also present a range of events, workshops, and activities each year that provide students with engaging and empowering opportunities to build community and learn about themselves as well as our local and global community. Students can gain valuable work and life experiences through salaried student employment, work-study, and volunteer positions.

### **Outdoor Recreation**

#### **Lakewood Watersports Facility**

2410 Lake Whatcom Blvd, 360-650-2900  
www.vu.wvu.edu/lakewood/

The Lakewood Watersports Facility – located approximately 7 miles from Western's campus at 2410 Lake Whatcom Blvd. – offers sailing, canoeing, kayaking, windsurfing, and rowing, as well as a sand

volleyball court, picnic tables and BBQ's, and hiking trails. For-credit Extended Education classes and private instruction in sailing are available during the academic year and summer quarter. An informal lounge with a kitchenette and fireplace is also available.

### **Outdoor Center**

Viking Union 150 (access available from North Garden Street adjacent to VU entrance), 360-650-3112  
as.wvu.edu/outdoor

The Outdoor Center provides a variety of outdoor-related engagement opportunities and activities for all students, faculty, staff, and alumni such as: rafting, biking, hikes, camping, and climbing. Emphasis is placed on developing and refining outdoor skills and responsible environmental practices, fostering diversity, enriching the academic experience, and promoting life-long learning. Resources include a knowledgeable staff, equipment rentals, a bike shop, excursions, educational resources, and instructional clinics. Custom crafted experiences are available for your group or office. Experienced trip consultants will prepare and deliver your experience.

### **Outdoor Center Challenge Program**

2410 Lake Whatcom Blvd, 360-650-3731  
as.wvu.edu/theedge/

Located at the Lakewood Watersports Facility, the Challenge Program offers teams, clubs, and groups of students, as well as faculty and staff groups, a facilitated opportunity to work on goal setting, leadership, effective communication, problem solving, trust-building, consensus-building, synergy, group roles, confidence and other valuable group and individual skills on our high and low experience ropes course. The program offers a sequence of "Challenge by Choice" activities specifically designed to increase social and individual awareness and appreciation through safe physical and mental challenges, discussion and reflection.

### **ViQueen Lodge**

Sinclair Island, 360-650-6131 (VU Reservations Office) 360-650-3731 (Management)  
as.wvu.edu/viqueen

Viqueen Lodge, located on 13 acres on Sinclair Island and provided by the

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Associated Students, offers overnight accommodations in a unique rustic lodge that can accommodate up to 15 people in the middle of paradise. Whales, seals, and eagles are your neighbors when lodging here. The island has a wonderful feel for relaxing groups and plenty of short walks to try while you are here. The property has no traditional bathroom facilities, but has running water and a full kitchen. There is wood always available to burn in the cooking pit if you desire. A small dingy is also there for your enjoyment.

### WOOT Program

Viking Union 150 (access available from North Garden Street adjacent to VU entrance), 360-650-3112  
[as.wvu.edu/outdoor/woot/](http://as.wvu.edu/outdoor/woot/)

WOOT aims to ease, support and enhance the transition into Western for first-year students through outdoor adventure and experiential education. Through establishing a small community of new students in the outdoors, connecting them to Western and their new environment, students will feel more at ease with entering the university setting and will better understand their new role as a college student. Week-long outdoor experiences happen prior to the start of fall quarter.

## Facilities and Services

### AS Child Development Center

Fairhaven College Stack 11/12, 360-650-3021  
[as.wvu.edu/cdc](http://as.wvu.edu/cdc)

The Child Development Center is provided by the Associated Students of Western Washington University and serves the children of students, faculty and staff, ranging in ages from 2-5. The center is open from 7:30 a.m. - 5:30 p.m. on the days Western is in session, as well as during winter and spring breaks. Tuition is based on a sliding-scale fee for students.

### AS Publicity Center

Viking Union 411  
[as.wvu.edu/publicity](http://as.wvu.edu/publicity)

The Publicity Center provides high quality and personalized promotional services, products, and support to the Associated Students organization and students at

Western Washington University. They offer excellence in graphic design, print and electronic media, and distribution services while providing unique educational opportunities and leadership experience to student employees.

### AS Recycle Center

[as.wvu.edu/recycle](http://as.wvu.edu/recycle)

The mission of the Associated Students Recycle Center is to provide the opportunity for faculty, staff and students to recycle on campus, to educate the University community on the recycling process at Western, and to continually increase collection efforts in order to reduce Western's waste stream. The center also provides student employment opportunities and work experience, specifically in recycling and waste management.

## Registrar's Office

Old Main 230, 360-650-3430  
[www.wvu.edu/depts/registrar](http://www.wvu.edu/depts/registrar)

See the Registration section of this catalog for information.

## University Residences

Edens Hall 100, 360-650-2950  
[housing.wvu.edu](http://housing.wvu.edu)

See the University Residences section of this catalog.

## The Research-Writing Studio

Haggard Hall second floor, 360-650-3219  
[library.wvu.edu/rws](http://library.wvu.edu/rws)

A free resource, the Research-Writing Studio is a vibrant, collaborative environment for students engaged in the research and writing process. At the Studio, staff are on-hand to help you realize your own potential as a scholar by providing you with feedback and strategies for every stage of the research, reading, and writing process. Use the Studio when you are

- Stuck in the brainstorming process
- Lost for a thesis or organizing scheme
- Troubled with too many, too few, or not the right sources
- Puzzled by grammar and citations
- Working in a group
- Require accommodation

- Working at home

Hours of operation vary, check online for availability. Always open for online draft submissions during the semester. See website for more information.

### Department-Related Activities

Department-related activities provide opportunities for students to participate in a wide range of programs. Although faculty from related departments work closely with these activities, students do not need to be affiliated with the departments in order to participate. In many cases, students may receive academic credit for their involvement. The individual programs are outlined below.

#### Forensics Program

Communication Facility 295, 360-650-4879  
[chss.wvu.edu/communication-studies/debate-team](http://chss.wvu.edu/communication-studies/debate-team)

The forensics program provides opportunities for participation in local, regional, national, and international competitions, in National Parliamentary Debate Association-style debate. The program encourages achievement in tournament participation at all levels of competition, ranging from novice to championship. Western's program enjoys a strong national reputation including numerous top-20 rankings and consistent participation in the National Parliamentary Tournament of Excellence field of participants. Annual activities also include sponsoring several local events, including campus presentations, hosting tournaments, and an annual advocacy on-campus conference (CASCAID). All students are welcome to participate regardless of major or experience level.

#### Music Activities

Performing Arts 273, 360-650-3130  
[cfpa.wvu.edu/music](http://cfpa.wvu.edu/music)

A wide range of vocal and instrumental groups on campus provides musical activity for students at acceptable levels of ability, and musical entertainment to satisfy listeners of all tastes. Some of the opportunities available to students include the Symphonic Band, Wind Symphony, University Choir, Concert Choir, Symphony Orchestra, Viking Pep Band, jazz ensembles, opera, Collegium Musicum, and numerous smaller ensembles. Membership in all of these ensembles is attained through either a performance audition or consent of the instructor. For more information see the Department of Music section of this catalog

or contact the Department of Music, Performing Arts Center 273, at 360-650-3130.

#### Publications

Communications Facility 230, 360-650-3171  
[chss.wvu.edu/journalism/publications](http://chss.wvu.edu/journalism/publications)

Student publications include The Western Front, a weekly newspaper; Klipsun, a quarterly magazine; Jeopardy, the annual literary magazine; Occam's Razor, an annual cross-disciplinary showcase for exceptional academic writing and The Planet, a quarterly environmental journalism magazine. Student contributions of time and talent are essential to these publications, and new students at all academic levels are encouraged to join their staffs each quarter. Students may receive credit for working on these publications through the Journalism and English Departments, as well as the Huxley College of the Environment.

#### Theatre and Dance

Performing Arts 395, 360-650-3876  
[cfpa.wvu.edu/theatredance](http://cfpa.wvu.edu/theatredance)

The Theatre and Dance Department offers students a rich variety of opportunities in faculty- and student-directed productions – both on stage and off – to write, act, dance, stage manage, design, teach, produce, and choreograph. The broad range of productions during the academic year includes musicals, dramas, and comedies from a variety of periods as well as faculty- and student-choreographed events, traditional dance concert events, and collaborations between the departments within the College of Fine and Performing Arts. The Theatre and Dance Department provides ongoing concentrated applied theatre and dance experiences for both the beginner and the advanced student. Previous theatre experience is not required for participation and all auditions are open. Previous dance experience is not a requirement for placement in a technique class. The Theatre and Dance Department participates regularly in the American Association of Theatre in Higher Education (ATHE), South Eastern Theatre Conference (SETC), The American College Dance Festival (ACDF), The Kennedy Center's American College Theatre Festival (KCACTF) and the United States Institute for Theatre Technology (USITT).

#### Western View (Video)

Communication Facility 295, 360-650-3870

Western View offers students the opportunity to gain digital video production and editing experience. Informational and educational video



## ENROLLMENT AND STUDENT SERVICES

instruction includes hands-on course work. Students produce videos shown in class. Advanced students working with Western Window will have their work air on WWU TV channel for off-campus audiences. Credit is available through the Department of Communication Studies.

# Financial Aid

Old Main 265, 360-650-3470  
www.finaid.wvu.edu

Western Washington University makes every effort to provide financial assistance to eligible applicants through grant, scholarship, work study, and loan programs. It is expected that students will meet part of their expenses through earnings from employment in the summer and academic year, and that parents (if applicable) will contribute in proportion to their financial ability.

**NOTE:** Students should be prepared to use some of their own money to pay for their initial expenses, even if they expect to receive financial aid.

## What is Financial Aid?

Financial aid is monetary assistance to help meet educational costs, including: tuition and fees, books and educational supplies, housing and food, transportation, personal, and dependent care expenses. The total amount of aid cannot exceed the cost of attendance used to determine financial aid eligibility. Eligibility for aid is determined by state and federal formulas from the U.S.

Department of Education and the Washington Student Achievement Council. Applicants complete the Free Application for Federal Student Aid (FAFSA), which is evaluated to determine each student's relative financial need, and awards are made with careful adherence to federal, state and institutional guidelines. Western Washington University students who enroll in an approved program of study abroad may be considered for funding from many, but not all, aid programs.

Applicants who submit the FAFSA form to the federal processor by the priority deadline (see How to Apply for Financial Aid section) are given priority consideration for aid based on available funding.

**Grants** are gift aid and do not have to be repaid. Grants are awarded on the basis of calculated need and other eligibility criteria from the applicant's FAFSA. Most grants are restricted to undergraduate students, with increased priority for students who meet the priority filing deadline. Some partial tuition and fee waivers are available to students in master's degree programs.

**Scholarships** are generally awarded on merit-based criteria, but some may also use financial need as a factor. Western Washington University offers merit scholarships to entering freshmen, transfer, and returning students in recognition of outstanding academic ability or talent.

Individual scholarships are available through University departments and colleges. The University's Multicultural Achievement Program Scholarship recognizes outstanding students who demonstrate a commitment to multicultural issues and activities in school or the community. Additional information is available in the Scholarship Center, Old Main 275, 360-650-3471, or online at [www.finaid.wvu.edu/scholarships](http://www.finaid.wvu.edu/scholarships).

Enrollment in self-supported courses may not meet the eligibility criteria for all scholarship programs. Students enrolled in self-supported courses or applying to self-supported programs are urged to contact the Scholarship Center to determine whether they remain eligible for scholarships they have been awarded.

**Loans** for education feature competitive interest rates. The federal government subsidizes the interest on some loans. Repayment may be deferred in most loan programs until after the student leaves school or falls below half-time enrollment. Western Washington University participates in the Federal Perkins, Federal Direct Stafford, and PLUS loan programs. The Federal Perkins loan is targeted to undergraduate students with exceptional financial need. Alternative Student Loans through private lenders may be available to students who qualify.

**Student Employment and Work Study** offer work opportunities on campus and in the local community. Financial aid eligibility may or may not be a prerequisite for employment, depending upon the employment program. It is important to note the majority of student employment positions on Western's campus do not require Work Study eligibility. The University places a strong emphasis on providing quality work experiences for its students. Additional information is available in the Student Employment Center, Old Main 285, 360-650-3158, or online at [www.finaid.wvu.edu/studentjobs](http://www.finaid.wvu.edu/studentjobs).

Work Study is awarded to undergraduate and graduate students with calculated financial need. Work Study jobs have a portion of the employee's earnings subsidized by federal, state, or institutional funds.

## How to Apply for Financial Aid

Students are required to file the Free Application for Federal Student Aid (FAFSA) each year to be considered for federal and state aid. The FAFSA can be completed online at [www.FAFSA.ed.gov](http://www.FAFSA.ed.gov).

To receive priority consideration for financial aid from all available programs, students must complete and submit their FAFSA by the priority filing deadline of February 15 preceding that

## FINANCIAL AID

academic year. Applications submitted after the priority deadline are considered for aid on a funds available basis.

Many aid applicants are required to provide additional FAFSA verification documentation so that their eligibility for aid can be determined. Examples of such documentation include but are not limited to verification worksheets, federal income tax transcripts, and W-2 forms. Students are urged to provide requested items as soon as possible to avoid delays in processing. The FAFSA and related application materials must be received in sufficient time to allow Financial Aid to finalize aid eligibility in accordance with federal requirements.

To prevent financial aid overawards that may require student repayment, aid applicants are required to immediately notify the Financial Aid Department in writing of any financial aid they are scheduled to receive or have already received from institutions or organizations other than Western Washington University. Such institutions and organizations may include, but are not limited to, other universities, colleges, educational loan lenders, and scholarship-granting organizations.

### General Eligibility Requirements for Financial Aid

Students may be considered for financial assistance if they:

- Are a citizen, a permanent resident of the United States, or an eligible non-citizen
- Submit a completed Free Application for Federal Student Aid
- Submit all required information and documentation
- Are admitted through the Admissions Office or Graduate School to a degree or certificate-granting program at Western Washington University
- Do not owe a repayment on a previous grant or are not in default on a previous educational loan received at any institution of higher education
- Have registered with the Selective Service, if required to do so
- Are enrolled for the minimum credit hours required:
  - 12 credit hours for full-time undergraduates; 8 credit hours for full-time master's degree candidates
  - 9 credit hours for three-quarter-time undergraduates; 6 credit hours for three-quarter-time master's degree candidates

- 6 credit hours for half-time undergraduates; 4 credit hours for half-time master's degree candidates
- Some students may be eligible for limited amounts of assistance if they are enrolled less than half-time
- Maintain satisfactory academic progress and have not already exhausted eligibility under the maximum attempted credit component of Western Washington University's Satisfactory Academic Progress Policy; please refer to Appendix J in the Appendices section of this catalog for additional information regarding satisfactory academic progress.
- Loan Proration - Federal regulations require that undergraduate and post baccalaureate students who are attending less than a full academic year (e.g., one or two quarters) in their graduating year must have their federal direct student loans prorated according to the number of credits required for graduation. The annual loan eligibility is prorated based on the credits required for graduation in the student's program as determined by the Registrar's Office and reported on the Degree Evaluation.
- Have not been convicted under federal or state law for possessing or selling illegal drugs during a period of enrollment for which Federal Title IV aid was received. If you have a conviction or convictions for these offenses, call 800-433-3243 or go to [www.ifap.ed.gov/drugworksheets/attachments/StudentAidEligibilityWorksheetEng1415.pdf](http://www.ifap.ed.gov/drugworksheets/attachments/StudentAidEligibilityWorksheetEng1415.pdf) to see how this law applies to you.

### Summer Financial Aid

To be considered for summer financial aid students must have a FAFSA for the preceding academic year on file, meet the same eligibility requirements as the academic year, and submit the Summer Financial Aid Application. The Summer Financial Aid Application is generally available in Mid-April via Web4U.

### Self-Supported Courses

Financial aid may be granted for self-supported courses. Contact the Financial Aid Department for eligibility requirements and aid procedures. Fee reductions and tuition waivers are not applicable to self-supported courses. Students enrolled in or applying to self-supported courses or programs should contact the Scholarship Center for specific scholarship eligibility requirements. Self-supported

courses may not meet the eligibility requirements for all scholarships.

### Graduate Students

Graduate students must enroll for at least 4 graduate-level credits each quarter to be eligible to borrow through the Federal Direct Unsubsidized Loan program.

### Short-Term Cash-Flow Problems

The Financial Aid Department may be able to assist with short-term cash-flow problems through two short-term loan programs.

### Emergency Loan

Currently enrolled students may borrow a maximum of \$350 for up to 30 days to solve minor cash-flow problems. A \$5 loan origination fee will be charged on each loan advance, and will be deducted at the time of the disbursement. Emergency loans must be paid in full within 30 days.

### Institutional Loan

Currently enrolled, matriculated students may borrow up to \$600 for a maximum of 90 days. This loan requires a co-signer. Loan proceeds will be applied to the student's account balance before a refund will be issued. A \$10 loan origination fee will be deducted at the time of the disbursement. The institutional loan must be repaid within 90 days.

The Financial Aid Department reserves the right to refuse any of the short-term loan programs to students who do not show an ability to repay the loan, who have a poor repayment history, or where the applicant appears to be over-reliant on the emergency loan program in lieu of managing a budget.

### Western Repayment Policy

Overpayment occurs when a student has received more aid than the student is eligible to receive. The most common reason for overpayment is full or partial withdrawal from classes by the student after financial aid has disbursed. A student who fully or partially withdraws from classes after aid has been disbursed may be required to repay all or a portion of that aid. The student will be held to Satisfactory Academic Progress requirements for the quarter.

Additional information on repayment requirements is available at the Financial Aid Department and the Student Business Office (OM 110).

Students must successfully complete the minimum number of credits associated with the enrollment status that they received aid for. Otherwise, aid could be delayed, reduced, or cancelled. On the second Friday of each quarter, the enrollment status is recorded and used as the final basis for determining eligibility for the following programs: Federal Pell Grant, Federal Teach Grant, State Need Grant, State Educational Opportunity Grant, Federal Supplemental Educational Opportunity Grant, Federal Work Study, State Work Study, Institutional Work Study, Federal Perkins Loan, Federal Direct Loan, Western Grant, tuition waiver, and some scholarship programs. This recording date is commonly referred to as the quarterly enrollment status "lock" date.

Students who receive aid from the above programs at the beginning of the quarter based on a higher enrollment status than their enrollment status at the lock date, may have their aid reduced to correspond with their locked enrollment status. In such circumstances, a repayment may be owed. Students whose enrollment status increases by the lock date may be eligible for additional funding.

### Lock Dates:

Fall Quarter	September 30, 2016
Winter Quarter	January 13, 2017
Spring Quarter	April 7, 2017
Summer Quarter	June 30, 2017

	Graduate	Undergraduate	Post-bac
Full time	8 or more	12 or more	12 or more
3/4 Time	6-7	9-11	9-11
1/2 Time	4-5	6-8	6-8
<1/2 Time	3 or less	5 or less	5 or less

### Withdrawing from Western

If you are planning to withdraw from all of your classes, please provide official notification to the Registrar's Office of your intent to withdraw as soon as possible (even prior to totally withdrawing). Failure to officially withdraw may result in having to repay all the financial aid disbursed during the quarter. Your notification will initiate steps necessary to bring closure to any outstanding financial aid issues for the quarter and help resolve any aid eligibility concerns for future quarters.

## FINANCIAL AID

Withdrawing prior to the start of any given quarter will require repayment of all aid disbursed for that quarter.

### **Withdrawing after the lock date (second Friday of each quarter)**

If you withdraw from all classes after the lock date, you will be placed on financial aid suspension for future quarters. You may petition for financial aid reinstatement if unusual circumstances beyond your control prevented you from meeting satisfactory academic progress requirements. Reinstatement is not guaranteed. For more information, please refer to the satisfactory academic progress policy (Appendix J).

If you withdraw from all classes during the first 60% of any given quarter, your eligibility for federal, state, and institutional aid will be recalculated in accordance with federal, state, and institutional requirements. Your withdrawal date will be the earliest of:

- the date you began the withdrawal process
- the date related to the circumstance leading to your withdrawal
- your actual withdrawal date
- the date that you began an official leave of absence signed by a University representative

This date is used to determine whether you owe a repayment of aid or if you are eligible for a post-withdrawal aid disbursement.

When students withdraw after rescinding a previous official notification of withdrawal, their original withdrawal date will be used. Applicants who withdraw from Western must also provide requested FAFSA verification documentation no later than 30 days after their last day of enrollment or forfeit their ability to receive any aid they otherwise may be eligible to receive.

## **Veterans Information**

Veterans and dependents of veterans enrolling at Western for the first time who plan to use VA educational benefits must either apply for educational benefits with the Veterans Administration, or if benefits have been used at another institution prior to enrolling at Western, complete a change of program form. In order to receive your payments on time, this should be done well in advance of the academic quarter you wish to attend.

All students using Veterans Benefits at Western Washington University are encouraged to apply for financial aid through the Free Application for Federal Student Aid (FAFSA).

Western Washington University's academic programs of study are approved by the Washington Student Achievement Councils' State Approving Agency for students eligible to receive educational benefits under Title 38 and Title 10 USC.

Veterans/dependents should make certain the academic objective they plan to pursue is one authorized by the Veterans Administration.

Please review additional information for Veterans/dependents attending Western Washington University at our web site [www.wvu.edu/registrar/veterans.shtml](http://www.wvu.edu/registrar/veterans.shtml)

See the Financial Aid Bulletin online at: [www.finaid.wvu.edu/bulletin/](http://www.finaid.wvu.edu/bulletin/) for more detailed financial aid information.

# Registration

Registrar's Office, Old Main 230, 360-650-3432  
[www.wvu.edu/depts/registrar/](http://www.wvu.edu/depts/registrar/)

Registration for each quarter is conducted in three phases using Web for Student, [www.wvu.edu/web4u](http://www.wvu.edu/web4u):

- Phase I — A period of two to three weeks in which continuing and returning students register by appointment.
- Phase II — A period before the beginning of the quarter when students can change their schedules. Except as noted otherwise, new freshmen register at orientation on the Monday before the quarter begins.
- Phase III — Registration beginning the first day of the quarter and ending at midnight on the fifth day of the quarter. Students may register online during the first five (business) days of the quarter.

Complete registration instructions can be found on the Registrar's website at [www.wvu.edu/registrar/registration/](http://www.wvu.edu/registrar/registration/). It is very important that students make certain after registering that they have done so properly by checking their schedules via Web4U. Students are prohibited from attending a class without being registered.

## Orientation for Newly-admitted Students Fall Quarter

- Transitions, a special orientation and registration program for new fall quarter transfer students, is conducted during mid-summer preceding fall quarter. New transfer students unable to attend Transitions should plan to attend the orientation and advising program held the Monday before the beginning of fall quarter. Each transfer student who has accepted an offer of admission will be sent complete information about orientation and advising.
- Summerstart, a special orientation and registration program for new fall quarter freshmen, is conducted during mid-summer preceding fall quarter. Each freshman student who has accepted an offer of admission for fall quarter will be sent complete information about this program. New freshmen unable to attend Summerstart should plan to attend the orientation and advising program held the Monday before the beginning of fall quarter.

# Student Responsibility for Registration

Students are responsible for completing their own registration each quarter. While faculty may provide permission with an override to enroll in a restricted course, the student must complete the process via Web4U. Schedule changes initiated after the first five days of the quarter and independent study registrations must be submitted in person at the Registrar's Office. Registration is done in person at the Registrar's Office beginning the sixth day of the quarter. Students must have either a current override or written permission from the instructor to add a class.

It is important for students to make certain they are not registering for a course in which they already received credit, either at Western or elsewhere. Unless the course is marked in this catalog as repeatable, it cannot be taken more than once for credit.

## Registration Restrictions

For pedagogical reasons, some courses are restricted to certain levels of students, to students who are declared majors, or to those who have received special permission from the instructor. Such restrictions are listed in the online Timetable of Classes and Classfinder. The student is responsible for ensuring that he or she has satisfied all prerequisites before registering for a course. A student who has registered for a course without satisfying prerequisites may be required to withdraw from the course by the instructor. If a student does not comply with the request to withdraw from the instructor, the Registrar may withdraw the student from the course at the request of the instructor or academic department.

## Registration Holds

A "hold" is placed on registration for students who have any outstanding obligations to the university. These obligations can include outstanding debts, failure to comply with immunization policies, failure to comply with certain admissions requirements or academic regulations, insufficient progress, and violations of conduct codes or other University rules.

## Waitlisting & Registration

When a course reaches capacity during Phases I, II and III of registration, students may add themselves, via Web4U, to an automatically-generated waitlist. Before waitlisting is allowed, however, students must meet all enforced course prerequisites and other course restrictions listed in

## REGISTRATION

the University Catalog, the online Timetable of Classes, and Classfinder.

When a seat becomes available in a waitlisted class, an automated email message is sent to the official WWU email address of the first student on the waitlist, notifying the student of the available seat. Students may also sign up to have waitlist notifications and other official WWU communications sent via text message. Students who receive notification of seat availability are responsible for registering via Web4U before the notification expires. During Phases I and II, notifications are active for 24 hours from the time the notification is sent, and for 12 hours during Phase III. The notification expires if the student does not register within the time allowed, and a notification is then sent to the next student on the waitlist.

Further details on waitlisting policies and how to sign up for text message delivery can be found under Registration on the Registrar's Office website.

### Late Registration

The deadline to register or to add a class is 5pm on the fifth day of the quarter (see the Summer Session website for summer quarter registration deadlines).

Late registration (initial registration for the quarter) is permitted only with current permission from the instructor and the Registrar's Office. After the first five days of a quarter, initial registration is allowed only by: 1) obtaining an override or written permission from the course instructor, and 2) paying the late-registration fee. Students adding classes to an existing schedule beginning the sixth day of the quarter must obtain an override or written permission from the course instructor and the Registrar's Office, but will not be charged a late-add fee until the beginning of the third week. (See the Summer Session website for specific summer quarter deadlines.)

### Extension Registration

Registration procedures for extension programs vary. Contact the appropriate program office for registration dates. See the Extended Education section in this catalog.

Students may register for Independent Learning courses (correspondence) at any time during the quarter; however, the academic quarter of record assigned to the course is determined by the Registrar's Office in consultation with Extended Education. Call Independent Learning at (360) 650-3650 for additional information. Enrollment in

correspondence or online courses only does not qualify as continuing enrollment for newly admitted, first-quarter WWU students. Contact the Registrar's Office for information regarding student status.

### Auditing Courses

Auditors are persons who desire to attend courses without earning academic credit. Written permission from the instructor and approval from the Registrar's Office are required to register to audit a class.

Auditors may not actively participate in class and therefore certain courses may not be audited, including, but not limited to physical education activities, laboratory courses, studio courses, independent study courses, language courses, courses not taught in a group setting, and any other course the Registrar deems ineligible. Auditing a course cannot be used toward successful completion of academic credit.

Auditors are not allowed to register until the first day of the quarter, and the course must not have reached a maximum enrollment. Changes to or from audit cannot be made after the first five days of the quarter.

Students enrolled for 10 or more non-audited credits may audit a course without an additional charge. Students enrolled for less than 10 credits should refer to the Tuition and Fees section "Auditing a Class." Students approved to register for an audit are responsible for paying any course fees attached to the course. Students who choose to audit self-supporting classes through Extended Education are required to pay the full amount of tuition and fees.

### Changes in Registration

Policies concerning changes in registration, such as withdrawal from a course or from the University, are described in the section titled University Academic Policies.

### Student Records Security

Washington Administrative Code 516-26-070 prohibits access to or misuse of a student's educational records. Any person who inappropriately gains access to a student's records, or tampers with a student's registration or academic record, will be subject to disciplinary action.



## **Directory Information/Confidentiality**

The University publishes an annual student directory, showing your name and local phone number. You may elect to have this information omitted by completing a Request for Confidential Status of Directory Information form in the Registrar's Office, Old Main 230. If this option is chosen, NO information will be released about you, including attendance, degrees and awards earned. Please be aware, however, that information will not be released to the student or alumnus, as well, without proper identification.

# Tuition and Fees

Student Business Office, 360-650-2865  
www.wvu.edu/sbo

(This section of the catalog is currently being updated)

## Tuition and Fees

Tuition and fees include tuition, mandatory fees, course fees and additional fees. All fees are subject to change as the result of action by the state Legislature or the board of trustees. See the **Description of Tuition and Fees** section below for a detailed explanation of each fee.

**By registering for classes, a student incurs a legal obligation to pay tuition and fees to Western Washington University. This debt may be canceled only if the student officially withdraws from Western before the quarterly deadline published on the Registrar's website under Dates and Deadlines. You are responsible for paying your account regardless as to whether or not there is an account statement available.**

The estimated quarterly expense for an undergraduate, State of Washington resident, living on own (i.e., not with a parent) attending fulltime is shown in the following table:

Estimated Quarterly Costs for 2016-17	
Tuition and Fees*	2,551.25
Room and Board**	3,585.00

\*Fees for students enrolled in 6 or more credits include: \$96 health service fee, \$43 student building fee, \$35 technology fee, \$99 student recreation fee, \$26.25 alternate transportation fee, \$1 legislative action fee, sustainable action fund fee of \$0.70 per credit to a maximum of \$7 per term.

Fees for students enrolled in fewer than 6 credits include: \$17.50 technology fee and sustainable action fund fee of \$0.70 per credit.

\*\*Room and board estimate is based on the average quarterly cost of a University Residence double room, unlimited meal plan.

The table below shows the tuition rates, rounded, by credit and student category. (Room and board and financial aid at Western are discussed in later sections of this catalog.)

### Current 2016-17 Schedule of Tuition and Required Fees

Classification									
Number of credits	1-2	3	4	5	6	7	8	9	10-18
Resident, Undergraduate	408	612	816	1020	1224	1428	1632	1836	2039
Resident, Graduate	598	897	1196	1495	1794	2093	2392	2691	2989
Nonresident, Undergraduate	1338	2007	2676	3345	4014	4683	5352	6021	6687
Nonresident, Graduate	1284	1926	2568	3210	3852	4494	5136	5778	6417

Classification	Number of credits			Per credit (less than 10 credits)	Per credit (more than 18 credits)
Number of credits	19	20	21		
Resident, Undergraduate	2243	2447	2651	224	204
Resident, Graduate	3288	3587	3886	319	299
Nonresident, Undergraduate	7356	8025	8694	689	669
Nonresident, Graduate	7059	7701	8343	662	642
Resident MBA				366	346
Non-Resident MBA				711	690

### Required fees not included:

Health Service	\$ 96.00
Legislative Action Fee	\$ 1.00
Student Building Fee	\$ 43.00
Student Recreation Fee	\$ 99.00

Sustainable Action Fund Fee <sup>^</sup>	\$ 7.00
Technology Fee	\$ 35.00
Alternative Transportation Fee	\$ 26.25
<b>Total</b>	<b>\$307.25</b>

<sup>^</sup>The Renewable Energy Fee will be assessed at \$0.70 per credit hour to a maximum of \$7 per quarter.

Enrollment Fee (first-time students only, non-refundable)	\$250.00
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**A tuition calculator can be accessed by selecting "Student Services", "Student Business Office", "Tuition & Fees", then "Tuition Calculator" from the main WWU Website to assist in projecting the amount of tuition and fees that will be due the University.**

See the University Academic Policies section of this catalog for an explanation of full-time status and how that affects financial aid, athletic eligibility, and veterans' benefits.

## Your Student Account

Tuition and fees are charged to a student's account at the time they register for classes. Students are responsible for reviewing their account and for paying the balance due. Western processes electronic statements and offers the option of paying student account charges online. Statement and account details are available at your Student Account Online.

If courses are added after the statement date or after financial aid has been disbursed, it is important to check your account online or with the Student Business Office to determine if additional payment is required.

Student account information is confidential (see Appendix E in the Appendices section of this catalog). Release of account information may be authorized by completing a Release of Financial Information form online through the Student Business Office Important Forms.

Currently enrolled students will be sent an **electronic notification** to their assigned University e-mail account. A second notification can be sent to another email address by setting up an authorized payer. **No paper bills will be sent.** For more information see our webpage at [www.wvu.edu/sbo](http://www.wvu.edu/sbo) or the Student Business Office in Old Main room 110.

The University uses e-mail as its official form of communication; this is intended to meet the academic and administrative needs of the campus community.

The University expects that such communication will be received and read in a timely fashion.

**Students are responsible for monitoring their student e-mail account and maintaining current contact information with WWU, including current address and telephone information.**

## Paying Your Student Account

**E-Pay (online payment using credit card or bank information associated with your checking, savings or debit card). Available 24 hours a day** with immediate update to the student's account. Payment may be made online with these credit cards, MasterCard, Discover or American Express. A 2.75 percent convenience fee will be charged for using a credit card. Payment also may be made online with an E-check (an electronic check). E-checks are not subject to convenience fees.

**To pay online**, students log in to your myWestern, then Web4U and follow the links to your Student Account Online. Parents or other third parties who will be paying an account must be set up as an Authorized User by the student in order to access student account information and make payments online. Instructions are available online at [www.wvu.edu/sbo](http://www.wvu.edu/sbo) or by visiting the Student Business Office in Old Main 110.

**Mail** checks to the Student Business Office, 516 High St., MS-9004, Bellingham, WA 98225. Do not use campus mail for payments.

Allow seven to ten business days for mail to reach Western. Payments are credited when received, not when mailed.

### Remember

- Write your WWU ID number on the check and make it payable to WWU
- Canadian checks **must** be made payable in U.S. funds

## TUITION AND FEES

- There is a \$25 charge for the first returned check and a \$50 charge for each subsequent returned check

**Pay in Person** at the Student Business Office, located in Old Main 110 (9 a.m. to 4:30 p.m. M-F). Payment may be made with cash, check or a debit card.

**Financial Aid** - All aid types will be applied to current quarter charges on the student's account. Only after University charges have been paid will a refund of excess aid be given to the student. **If a student incurs additional registration charges after financial aid has been applied to their account, the student is responsible for paying the additional charges by the tuition due date without notification.**

**Miscellaneous Charges** - Miscellaneous purchases charged to a student's account, such as bookstore purchases, health center charges or athletic health fees, **will not be paid** by financial aid unless a student signs a form authorizing the University to use financial aid to pay these miscellaneous charges. Fill out an Authorization for Miscellaneous Charges form online to allow financial aid to pay these charges.

### Due Dates, Late Fees and Interest

Tuition, fees, and housing charges are due on the first day of each term. Late fees and 1 percent interest will be assessed to all past due accounts after the close of business on the 15th of each month.

Late Fees and interest are assessed after the close of business on the 15th of each month.

- Fall - October 15, November 15, December 15
- Winter - January 15, February 15, March 15
- Spring - April 15, May 15, June 15
- Summer - July 15, August 15, September 15

Tuition due dates are posted on the Student Business Office website and the Registrar's Office website.

### Nonpayment Penalty

The University may withhold admission or registration privileges for students who fail to meet financial obligations to the University. The University may also withhold the issuing of official transcripts.

Unpaid balances mean your account will be placed in collection status with the Student Business Office. A service fee will be added to the amount you owe.

Accounts with past due unpaid balances may be forwarded to a contracted outside collection agency. Additional collection costs of 33.3% - 50% will be assessed. If necessary, it may include costs of litigation and may result in a judgment and/or wage garnishment.

### Graduating or Exiting Students

Students who had a federal loan or federal Teach Grant disbursed while attending the University are required to complete exit counseling. The exit counseling requirement is designed to acquaint students with their rights and responsibilities regarding their student loans. Exit counseling should be completed before graduation, before withdrawing from Western, or when a student's credit load drops to less than half time. Exit counseling is a federally mandated requirement.

### Course Withdrawal

Students who drop courses may be entitled to a credit for a portion of the tuition and fees for a given quarter depending on the time of the quarter the transaction is completed.

- Courses dropped prior to the sixth day of the quarter may be entitled to a full tuition credit
- Courses dropped beginning on the sixth day of the quarter and within the first 30 calendar days may be entitled to one-half tuition credit
- Courses dropped after the 30th calendar day will not receive a tuition credit

10-18 credits are considered flat rate tuition, refer to the Tuition and Fee Schedule on our webpage at [www.wvu.edu/sbo](http://www.wvu.edu/sbo). See also **Withdrawal from a Course** in the University Academic Policies section.

### Official School Withdrawal from the University

To officially withdraw from Western for the quarter, a student must contact the Registrar's Office and make a written request to withdraw. To enroll in courses after an official school withdrawal a student will need to re-apply to Western and be re-admitted before registering for any courses.

Students who officially withdraw from Western **prior to the sixth day** of the quarter may receive full credit of tuition and fees. See the sections under University Academic

Policies for information on withdrawing from the University. The \$250 enrollment fee is nonrefundable.

Students who officially withdraw **beginning on the sixth day** of the quarter and within the first 30 calendar days may be entitled to one-half tuition credit. After the fifth day of instruction, the health services, building, technology, recreation, transportation and renewable energy and course and audit fees are nonrefundable.

Students who withdraw after the 30th calendar day of the term will receive no credit.

The deadlines for each quarter are published on the Registrar's website.

Fall, Winter, and Spring quarters only (refer to the Summer Session website for summer quarter withdrawal policy).

A statutory pro rata return of financial aid is required for students who received Title IV federal financial aid.

**Also refer to the following resources:**

- Financial Aid Bulletin: 'Withdrawing' section  
<http://www.finaid.wvu.edu/bulletin/>
- Federal Aid Repayment: 'Leaving Early' section  
<https://studentaid.ed.gov/repay-loans/understand>
- State Aid Repayment: 'SNG Repayment' Policy search  
<http://www/hecb.wa.gov/index.asp>

## Refunding

Payments made to your student account, including financial aid disbursements (Federal Direct Stafford Loans, Federal Perkins Loans, scholarships, grants and waivers) and other support are applied to tuition and fees, University housing, and miscellaneous charges (if the Miscellaneous Charges form has been completed). If financial aid does not pay everything the student owes, the student is responsible for paying the balance by the tuition due date. If the payments to the account results in a **credit balance** the excess funds will be disbursed by **ACH Direct Deposit** into the student's personal checking or savings account. For direct deposit refund enrollment information see our website at [www.wvu.edu/sbo](http://www.wvu.edu/sbo).

## Description of Tuition and Fees

Tuition rates and service and activities fees are set by the board of trustees within the parameters of the state Legislature. Tuition consists of the operations fee and the capital building fee. In addition, 4.0% of the operating fee, 3.5% of the capital building fee, and 3.5% of the services and activities fee collected is allocated to fund student financial aid.

The operations fee, with the state's general fund appropriation, is used to support the University's primary mission, the education of its students. This money funds instruction, library, student services, administrative and maintenance functions.

The capital building fee is used for the construction of academic facilities. It is not used for both housing and dining buildings or to support the University's operating budget.

## Other Mandatory Fees

### Service and Activities Fee

The service and activities fee (**\$205 per quarter**) is used to amortize, in part, residence halls, dining halls and student activities facilities; to provide the Associated Students administration; and to support student activities such as theatre, forensics, musical activities, intramural and intercollegiate activities, et cetera.

### Enrollment Fee

A one-time **\$250** enrollment fee is charged to all newly matriculated students, not including extension or graduate students, upon registration for their first quarter of attendance. This fee is nonrefundable.

### Sustainable Action Fund Fee

A student initiated fee assessed to all students at \$.70 per credit hour to a maximum of **\$7.00 per quarter** with the goal of promoting sustainable practices at Western Washington University. The fee goes towards the purchase of Renewable Energy Certificates to offset 100% of the electrical consumption of the university as well as the Sustainable Action Fund Fee Grant Program which funds innovative student-driven projects that aim to reduce the campus' environment impact.

The following fees are assessed each quarter to all students registered for 6 or more credits on the Bellingham campus and are nonrefundable after the fifth day of the quarter.

## TUITION AND FEES

### **Health Service Fee** **\$96 per quarter**

The Health Service fee is used to establish a standard of health care for Bellingham's campus and as a contingency for emergency services. For more information contact the Student Health Center at 360-650-3400.

### **Student Recreation Fee** **\$99 per quarter**

The student recreation fee is used for the construction, operation, and maintenance of the Wade King Student Recreation Center. For more information, visit [www.acadweb.wvu.edu/recreate/](http://www.acadweb.wvu.edu/recreate/).

### **Student Building Fee** **\$43 per quarter**

This fee is used to fund the improvement and development of the Viking Union Complex on the Bellingham campus. For more information, visit [www.as.wvu.edu](http://www.as.wvu.edu).

### **Technology Fee** **\$35 per quarter for students enrolled in 6 or more credits, \$12.50 enrolled in 1-5 credits per quarter**

This fee is used to upgrade and expand the University's technology equipment, facilities, and software on the main WWU campus. For more information, visit [www.wvu.edu/stf/](http://www.wvu.edu/stf/).

### **Alternative Transportation Fee** **\$26.25 per quarter**

This fee is used to provide transportation resources, including WTA bus passes and daily late night student shuttle service. For more information, visit <http://www.wvu.edu/transportation> or contact the Sustainable Transportation Office by phone at (360) 650-7960 or email [transportation@wvu.edu](mailto:transportation@wvu.edu)

### **Legislative Action Fee** **\$1 per quarter**

In 2014, the Associated Students voted in favor of this fee structure change to provide stability and support. The fee increases student representation and advocacy efforts at the campus, local, state and federal levels.

## **One-Time Fees**

Official Transcripts  
**\$11**

Requests should be submitted to the Registrar's Office one week in advance of need. The university may withhold transcripts for students who fail to meet financial obligations. Unofficial faxed transcripts are \$15. There are additional fees and charges for FedEx and electronic transcript orders. Transcript ordering information and options may be found on the Registrar's website.

### **Degree Application Fee** **\$45 degree application fee**

Late fee for applying after the deadline: \$38.00

Departmental Academic Certificates  
**\$26 certificate application fee**

## **Miscellaneous Fees**

### **Parking Permits**

For parking and traffic regulations, see Appendix I. Quarterly Rates. All parking rates are subject to change. **Rates do not include sales tax.** [www.wvu.edu/ps/](http://www.wvu.edu/ps/).

### **Student Health Center**

An optional medical insurance plan is available to eligible students. Contact the Student Health Center for details.

### **Special Examination Charges**

Course challenge, \$100 per credit.

### **Other Special Course Fees**

Students registering in certain courses are charged additional fees for purchase of special laboratory and studio supplies and for special services such as music practice room rentals. These fees are listed with each course in the online Timetable of Classes.

### **Audit Fees**

Full fee-paying students (10 or more non-audited, main-campus credits) may audit a course without an additional fee (excluding course fees). Part-time students may audit courses for **\$10 per credit**.

### **Late Registration/Late Course Adds** **\$12 per credit**

A fee of \$12 is charged if a student registers initially after the fifth day of instruction in a quarter. A fee of \$12 per credit is charged if a student adds a class after the second week of instruction. Either action requires written permission of the course instructor, department chair, and Registrar.

## Tuition and Fees - Extended Education

Tuition/Fee Type	RATE (as of Fall 2016)
Student Legislative Action Fee	\$1 per quarter
Extended Education Student Service Fee	\$9.00 per credit
Graduate Tuition (excluding Weekend MBA)	\$335.00 per credit
Graduate Tuition - Weekend MBA	\$625.00 per credit
Undergraduate Tuition	\$281.00 per credit
Undergraduate Tuition - Active Duty Military Personnel	\$166.00 per credit
Credit Option Tuition	\$50.00 per credit
Online: Term-Based Course Tuition	\$250.00 per credit
Online: Self-Paced Course Registration Fee	\$25.00
Online: Self-Paced Course Enrollment Renewal Fee	\$50.00
Online: Self-Paced (aka Correspondence) Course Tuition	\$131.00 per credit
Video Tape Refundable Deposit Fee	\$30.00
Professional Development Non-Credit Fees	Variable
Conference Fees	Variable
Youth Program Fees	Variable
Academic Year Self-Sustaining Resident Undergraduate Tuition	\$250.00 per credit
Academic Year Self-Sustaining Non-Resident Undergraduate Tuition	\$264.00 per credit
Academic Year Self-Sustaining Resident Graduate Tuition	\$266.00 per credit
Academic Year Self-Sustaining Non-Resident Graduate Tuition	\$280.00 per credit
Intensive English Program - Application Fee	\$100.00
Intensive English Program - Quarterly Excursions and Events Fee	\$25.00
Intensive English Program - Quarterly Sponsored Student Fee	\$150.00
Intensive English Program - Quarterly Tuition (Full-time)	\$3,212 per quarter
Intensive English Program - Quarterly Tuition (Part-time)	\$140.00 per course hour
Mandatory Campus Fees	Vary by campus location/program
Summer Session 2017 tuition and fees as approved by the Board of Trustees in December 2016.	

All self-supporting tuition and fees are subject to change without notice. Variable course fees apply to the Professional Certificate programs, workshops and special courses. Contact Extended Education and Summer Programs for current rates.

Fee reductions and tuition waivers are not applicable to self-supporting extension courses.

### Self-Supporting Tuition and Fees Refund Policies

A full refund of all tuition and fees paid are given if a class is canceled or a registration is not accepted. All requests for refunds must be in writing (e-mail requests are acceptable).

#### Credit and Online Courses

**Full refund** — same as regular Western policy or before the second class meeting, whichever is later.

**50 percent refund** — same as regular Western policy

**No refund** — same as regular Western policy. No refunds are given after the first 30 calendar days following the first day of Western's Bellingham campus quarter.

#### Independent Learning course (including correspondence and contract courses)

No refunds are given after 30 days from the date of registration. If assignments have been submitted, a prorated service fee is deducted from the refund. The registration fee is nonrefundable.

#### Non-credit and Professional Development Courses

**Full refund** — is available until registration closes. After the 1st class and before the 2nd class, a full refund (minus registration fee and processing fee) is available.

**No refund** — will be given except in cases of documented personal/family, health, or unavoidable job issues after the 2nd class.

## TUITION AND FEES

Such refunds will be prorated based on attendance.

### **Summer Session**

See Summer Session website for the refund policy for summer fees.



# Undergraduate Admission

Old Main 200, 360-650-3440, [admissions.wvu.edu](http://admissions.wvu.edu)

**Every effort has been made to provide accurate information regarding admissions policies and procedures. However, these practices may change prior to catalog revision. Please consult the Office of Admissions prior to submitting an application.**

The Undergraduate Office of Admissions welcomes applications for freshman, transfer and post-baccalaureate undergraduate admission as well as readmission applications for undergraduate students returning to Western. Western Washington University's admissions policies reflect the University's commitment to enroll students with diverse interests and backgrounds who demonstrate ability, creativity, and motivation.

## General Admissions Information

Admission to Western is selective as the number of qualified applicants exceeds the number of available enrollment spaces. Standards may vary from quarter to quarter dependent upon space availability. Criteria considered in the review process include academic achievement, activities, intended program of study and individual circumstances.

An Undergraduate Application for Admission is required of all freshman, transfer and post-baccalaureate applicants. International applicants must complete the International Student Undergraduate Application. Former Western undergraduate or post-baccalaureate students who wish to reapply must submit the Returning Student Application. All applications must be accompanied by a nonrefundable \$55 application fee unless the applicant requests and receives approval to waive the application fee due to financial hardship.

## Application Deadlines and Procedures

Although some applicants are notified of an admission decision prior to the application deadline, the majority of decisions are made after the application deadline. All on-time applications are given equal consideration. Applications received after the deadline will be considered on a space-available basis.

- Fall Quarter
  - Freshman (includes all Running Start applicants) Early Action - November 1; Regular Decision - January 31

- Transfer, Post-bac, Former Western Student — March 1
- Winter Quarter — October 1
- Spring Quarter — January 15
- Summer Continuing to Fall
  - Freshman applications are not accepted for Summer Quarter
  - Transfer, Post-bac, Former Western Student — March 1

## International Student Application Deadlines

- Fall Quarter - January 31 (freshman); March 1 (transfer/post-bac)
- Winter Quarter - October 1
- Spring Quarter - January 15
- Summer Quarter - March 1 (transfer/post-bac), however international students are strongly discouraged from beginning Summer Quarter. Freshmen are not eligible to begin summer quarter.

Western extension program deadlines and fees may vary. Please contact the specific program for information. See the Extended Education and Woodring College of Education sections in this catalog or [admissions.wvu.edu/extended-ed](http://admissions.wvu.edu/extended-ed) for details.

All application materials, including official transcripts and test scores, if required, must be postmarked by the deadline. To be considered official, transcripts must be sent directly from the issuing institution or be delivered in an official, sealed envelope. Transcripts must be received from all institutions attended, regardless of whether or not credit is desired.

Once admitted, all applicants other than post baccalaureates, extension applicants, or former students who have been readmitted, must confirm their intent to enroll by submitting a nonrefundable \$250 fee. This one-time enrollment fee funds a variety of academic support services related to new student orientation, advising, and academic success. Applicants with demonstrated financial need may request a deferral of the \$250 fee to their first quarter tuition bill. Enrolling students must also provide proof of measles immunization prior to course registration.

Admission to the University does not imply admission to a major or enrollment in specific courses. Many academic programs have selective admission requirements, including grade point average (GPA), prerequisite course work, et cetera. The College sections of this catalog provide specific major declaration requirements.

The Office of Admissions sponsors a variety of campus visit options for prospective students. Specific information may be obtained by contacting

## UNDERGRADUATE ADMISSION

the Office of Admissions at 360-650-3440 or at [admissions.wvu.edu/visit](http://admissions.wvu.edu/visit).

### Students with Disabilities

The University's policy regarding admission and access prohibits discrimination on the basis of disability. Western Washington University is committed to making physical facilities and instructional programs accessible to students with disabilities. After admission, students with disabilities are strongly encouraged to contact disAbility Resources for Students at 360-650-3083 or [drs@wwu.edu](mailto:drs@wwu.edu) so services and accommodations can be discussed and coordinated in a timely manner.

### Freshman Admission

The most important criterion in the selection process is demonstrated academic achievement, including grade point average, quality and rigor of course work, grade trends, and SAT or ACT scores. Activities, leadership, special talent, multicultural experience and individual circumstances are also considered. An essay is required, and an activities list is strongly encouraged.

Applicants are encouraged to pursue academic course work and advanced study beyond the minimum course requirements listed below. Academic course work exceeding the minimum requirements, including Advanced Placement, honors, Running Start and International Baccalaureate, will strengthen the application for admission.

**English:** Four units, at least three selected from college preparatory composition and literature courses. One unit may be satisfied by courses in drama, public speaking, debate, journalistic writing, ESL or business English.

**Mathematics:** Three units of mathematics are required, at the level of algebra, geometry and advanced (second-year) algebra. High school students are strongly encouraged to continue taking math during their senior year. More advanced mathematics courses are recommended such as trigonometry, mathematical analysis, elementary functions and calculus. Arithmetic, pre-algebra and business mathematics will not meet the requirement. An algebra course taken in the eighth grade may satisfy one unit of the requirement if second-year algebra is completed in high school.

**Science:** Two units of college preparatory science, including one unit of an algebra-based science such as chemistry or physics, one course must include a laboratory experience. Two units of agricultural science will equal one unit of science.

**Social Science:** Three units of college preparatory course work, including history, government, psychology, politics, economics, geography, et cetera. Credit granted for student government, community service, or other applied or activity courses may not be used to fulfill this requirement.

**World Language:** Two sequential units in a single foreign language, Native American language or American Sign Language. Students entering the United States education system from non-English speaking countries at the eighth grade or later are exempt.

**The Arts:** One semester or one trimester in the fine, visual or performing arts, to be chosen from study in art appreciation, band, ceramics, choir, dance, dramatic performance, music, photography, et cetera. Courses in color guard, drafting, fashion design, sewing, woodworking, et cetera, are not acceptable.

Since the number of qualified applicants exceeds the number of available enrollment spaces, meeting minimum requirements is no guarantee of admission. Applicants who do not meet minimum eligibility requirements can be exempt under certain circumstances. College course work may also be used to fulfill high school requirements. See College Credit for High School Students section below.

### College Credit for High School Students

High school students earning college credit will be considered freshmen for admissions purposes, as long as the applicant attempts no college-level course work after high school graduation (excluding summer). The University will accept college credit in fulfillment of high school course requirements as indicated on the high school transcripts. College-level credit will be awarded in a manner consistent with standard transfer equivalency policies. To receive credit, students are responsible for submitting official college transcripts and/or score reports.

### Running Start and College in the High School

Regardless of number of college credits earned, Running Start students and other high school students with college credit must follow freshman application procedures and meet freshman admission standards and deadlines. This includes completion of the high school course requirements and submission of ACT or SAT exam scores.

## Advanced Placement (College Board), International Baccalaureate, and Cambridge International Exams

Western encourages applicants to take Advanced Placement, International Baccalaureate, and/or Cambridge International courses and exams where available. College-level credit, to a maximum of 45 credits, will be granted to enrolling students who have scored a 3 or above on the AP exams, a 4 or above on the higher-level IB exams, and grades A-E on Cambridge A and AS level exams. See the University Academic Policies section in this catalog for further details.

## Admission Requirements for Home Schooled Applicants

All freshman applicants need to supply Western with SAT or ACT test scores along with detailed documentation that outlines the curriculum they have studied in the last four years. Typically, this documentation is in the form of a transcript. Home-schooled applicants must demonstrate academic preparation comparable to general freshman admission requirements. While not required, GED scores can be helpful in assessing the preparation of nontraditional applicants.

## Transfer Admission

Western welcomes transfer applicants in all majors and from all types of colleges and universities. A transfer applicant is someone who has attempted college credit after high school graduation. Please see the section on Freshman Admission if your college credits were earned while you were also fulfilling high school requirements.

Academic achievement is the most significant factor in the application review. Clearly defined academic goals, completion of major prerequisites and related experiences, number of transfer credits, contributions to and/or experiences with multiculturalism, special talent, personal circumstances, and space availability are also considered. All transfer applicants are encouraged to begin taking math/quantitative skills courses as early in their college career as possible and to complete college-level math prior to submitting their application for admission.

Minimum requirements for transfer admission include a 2.0 cumulative transferable GPA and a 2.0 in the quarters prior to application review and enrollment. Applicants with fewer than 45 completed transferable quarter credits also must meet freshman admission standards. Meeting minimum requirements is not a guarantee for admission as the number of qualified applicants

exceeds the number of available enrollment spaces.

In calculating the transfer admission GPA, the Office of Admissions uses all transferable academic courses, including repeats, from all regionally accredited colleges the applicant has attended.

Admission to the University does not imply admission to a major or enrollment in specific courses. Many academic programs have selective admissions requirements, including GPA, prerequisite course work, auditions, portfolio review, et cetera. The College sections of this catalog provide specific major declaration requirements.

## Transfer Policies and Procedures

Western Washington University endorses the **Policy on Inter-college Transfer and Articulation among Washington Public Colleges and Universities**. Detailed transfer advising information, including course equivalency information, as well as a list of transfer student rights and responsibilities, is listed on Western's website.

## Transfer of Credit

In general, Western Washington University grants credit for baccalaureate-oriented courses completed at accredited institutions of higher education. Transfer of credit policies are developed by the University's Recruitment, Admissions and Support Committee and the statewide Inter-College Relations Committee and approved by the University's faculty. Authority to administer these policies is shared by the Registrar, the Assistant Vice President of Enrollment and Student Services and, where applicability of major or minor is concerned, department chairs.

Several factors govern the acceptance of transfer credit. Chief among them is accreditation. For transfer credit purposes, Western recognizes those institutions which have received accreditation by the Regional Associations of Schools and Colleges.

Western allows a maximum of 135 quarter (90 semester) credits to transfer from any combination of regionally accredited institutions, including no more than 105 quarter (70 semester) lower-division credits. Additional course work which exceeds this amount may be used to meet specific requirements but additional credits will not be allowed to count toward the 180 credit requirement for graduation.

Regardless of the number of transfer credits awarded, students must earn a minimum of 45 resident credits through Western for graduation.

## UNDERGRADUATE ADMISSION

Lower-division transfer coursework that is deemed equivalent to an upper-division course cannot be used to satisfy WWU's 60 credit upper-division minimum requirement.

Certain credits earned at previous institutions do not transfer, regardless of that institution's accreditation, including:

- College courses numbered below 100
- Technical and vocational courses
- Developmental education or remedial courses
- English as a Second Language
- Sectarian religion courses
- Credit for life experience/travel
- Study skills courses
- CLEP examination credit
- DANTES credit by examination

Exception to the above policies may be made in accordance with inter-agency articulation agreements.

### **Military credit**

Students may receive up to 30 credits for military service as recommended by the American Council of Education (ACE) Guide to the Evaluation of Educational Experiences in the Armed Services and in accordance with University and State policies regarding transfer credits. Applicants may request evaluation of military credit by submitting the Joint Service Transcript (JST) to the Office of the Registrar. The JST replaces the Coast Guard Institute Transcript, Army ACE Registry Transcript (AARTS), and the Sailor/Marine ACE Registry Transcript (SMART). Air Force personnel submit Community College of the Air Force transcript.

### **Transfer of Associate Degrees**

**Direct Transfer Agreement (DTA) Associate Degree.** Applicants who complete a DTA associate degree at a Washington State community college prior to initial enrollment at Western ordinarily will satisfy all of Western's General University Requirements (GURs). To be accepted in lieu of Western's GURs, the associate degree must meet Washington State's Inter-college Relations Commission (ICRC) guidelines and include at least 90 credits. The DTA degree must include 75 credits that are directly transferable to Western. Up to 15 credits not normally transferable may transfer if used as part of this associate degree. Western will not accept any non-transferable credit earned after the DTA is awarded. The Pass/Fail grading option may only be used in the general elective area. Students should work closely with community college transfer advisors to ensure their curriculum choice follows the approved guidelines.

### **Associate of Science - Transfer (AS-T)**

**Degree.** Washington State community college students intent on earning a bachelor's degree in biological sciences, chemistry, computer science, geology, or physics may be best served by completing the appropriate Associate of Science - Transfer degree prior to admission. While this degree will not fulfill Western's GURs, it is the most efficient route in preparing for upper-division study in most science and engineering majors. Students who complete this degree will enter Western with 90 credits and preparation for upper-division program study; however, it does not guarantee admission to the major. Up to 5 credits not normally transferable may transfer if used as part of this associate degree. Western will not accept any non-transferable credit earned after the AS-Transfer Degree is awarded.

### **General Education Transfer Agreement**

Completion of General University Requirements will be granted to transfer students from another Washington state public baccalaureate institution whose General University Requirements were completed and certified by the sending institution.

### **Reverse Transfer Option**

An approved associate degree is generally earned prior to initial enrollment at Western (on or off campus) as a transfer student. If any student wishes to complete such a degree in order to have it satisfy the GUR while enrolled at Western, it must be earned by the time the student 1) has completed 45 credits at Western, or 2) one calendar year has passed from initial enrollment, whichever comes later. Exceptions to the 45 credit and/or one calendar year requirement may be requested from the Registrar's Office.

### **Post-Baccalaureate Admission**

Space for applicants who wish to pursue teaching certification, complete graduate school requirements or earn a second bachelor's degree is limited, and therefore admission is competitive. Proposed program of study, preparation for major, cumulative academic record, related experience, space availability and clarity of academic and career goals are the most important factors considered in the application review. All post-baccalaureate applicants are required to submit a **statement of purpose** with their application. Many post-baccalaureate applicants will find their educational needs can be met through enrollment options offered through Extended Education or Western's program for non-matriculated students. For more information, see the Extended Education and Registration sections in this catalog.

Post-baccalaureate applicants interested in pursuing a residency teaching certificate must simultaneously apply to Woodring College of Education.

### International Student Admission

In addition to meeting admissions standards comparable to those required of other applicants, international applicants must demonstrate English proficiency and provide proof of full financial support for all expenses for one academic year. Students with fewer than 45 transferable quarter credits (30 semester) must also submit official secondary school transcripts.

International applicants must demonstrate English language proficiency via one of the following options:

1. Earn a transferable associate's degree from a Washington State Community College with "B" or better grades in English 101 and English 102;
2. Minimum TOEFL score of 80 (internet-based) or 550 (paper-based) or;
3. Minimum IELTS score of 6.5

Western also offers a conditional admission option for international applicants who demonstrate strong academic potential but will benefit from Western's Intensive English Program prior to gaining full admission to Western.

### Conditional Admission

Conditional undergraduate admission may be granted to applicants who do not meet the university's **English language requirement** or who need more university preparation and English language study before entering a degree program. Applicants do not need to submit a TOEFL or IELTS score to apply for conditional admission. However, before beginning to take regular university classes and moving into full admission status, students will need to demonstrate a high level of academic English ability, equivalent to Western's English language requirement, through Intensive English Program coursework. Applicants must confirm their acceptance of conditional admission by applying for and enrolling in the Intensive English Program (IEP) at Western.

Applicants must fulfill all other requirements for undergraduate admission, including having competitive grades from previous high school or post-secondary institutions. Freshman applicants need to have completed foundation coursework in English, humanities, mathematics, natural/physical sciences and social sciences. Additionally, for transfer applicants, college level English, math, and academic coursework and experiences related

to one's academic area of interest will further strengthen the application.

Conditional Admission students must attend the Intensive English Program full-time for a minimum of one quarter. Before enrolling in their first credit classes, students must successfully complete IEP Level 5 Academic English courses (Academic Preparation, Research Writing, Academic Communications, Academic Reading, and Applied Language Skills). During the first quarter of matriculation all conditional admission students will enroll in the Bridge Program, which consists of university credit courses offered by English, Communication, and other Departments.

For more information, contact the Intensive English Program office at 360-650-3308, send e-mail to [iep@wwu.edu](mailto:iep@wwu.edu), or visit the IEP webpage at [www.wwu.edu/ee/lcp/iep/](http://www.wwu.edu/ee/lcp/iep/).

### Readmission of Former Students

Undergraduates pursuing a first bachelor's degree after an absence from campus generally are guaranteed readmission as long as they left Western in good academic standing and follow readmission application instructions. Post-baccalaureate students returning after an absence from campus must include a detailed academic plan of study, as the post-baccalaureate readmission process is selective. Former students must submit a **Returning Student Application** that includes a list of all educational institutions attended since leaving Western and meet deadlines cited under **Application Deadlines and Procedures** section whenever possible. Students applying to return after dismissal from the University must follow reinstatement procedures detailed in the University Academic Policies section of this catalog.

Students who have been dropped for low scholarship, even if absent for five years or more, must pursue reinstatement. See **Reinstatement** section under University Academic Policies.

Former Western extension program students returning to the same Western Washington University extension program to pursue a first bachelor's degree or post-baccalaureate study must complete the appropriate Extension Program Returning Student Application and submit it with a \$55 nonrefundable application fee.

A former Western undergraduate student who returns to the University after an absence of five years or more may be given permission to start a new cumulative grade point average. See Fresh Start policy in University Academic Policies section.

## UNDERGRADUATE ADMISSION

### Extension Program Admission Information

Western's general admissions requirements apply to all extension programs. Additional application procedures may be required. Extension program deadlines and fees may vary. The extension program sites offer informational sessions for prospective students. For specific program information, see the Extended Education and Woodring College of Education sections in this catalog.

Applicants to Western's extension programs must complete the Transfer & Post-baccalaureate Application for Extended Education Programs and submit it with a \$55 nonrefundable application fee. International applicants to Western's extension programs must also complete the Extension International Supplement. Applications are available online on the admissions website.

Former Western extension program students returning to a Western extension program must complete the Extension Program Returning Student Application and submit with a \$55 nonrefundable application fee.

### Special Students and Auditors

The Registrar's Office grants course registration privileges on a space-available basis, for one term at a time, to auditors, Washington state employees, and residents over 60 years of age who are eligible for tuition reduction. Special students and auditors must submit a Special Student Enrollment Form to the Registrar's Office each quarter. The form can be found online at: <http://www.wvu.edu/depts/registrar/forms.shtml>.

### Early Admission/Concurrent Enrollment While in High School

Applicants who plan to graduate from high school early should follow standard freshman admission procedures.

Applicants interested in concurrently enrolling in courses while also attending high school may apply at the Registrar's Office to take courses as non-matriculated students. This program allows eligible applicants to enroll in courses on a space available basis. Applicants who are interested in being formally admitted as matriculated students while staying in high school must demonstrate superior academic achievement, fulfill all freshman admission requirements, and demonstrate that they have exhausted all academic opportunities available through their high school and local community college.

With the exception of any scholarships specifically designated for high school students, concurrently enrolled high school students are not eligible for financial aid or WWU scholarships.

### Right to Appeal

Applicants who are denied admission to Western have the right to request a reevaluation of their application. Appeals must be received in writing, clearly state the reasons for seeking reconsideration, be signed by the applicant, and be received by published deadlines. Applicants may submit additional documentation to support their request for reconsideration. After review, the appeals committee may admit the applicant, admit the applicant with conditions, or deny admission. Applicants who are admitted after a second review of a winter or spring quarter application will generally be offered admission to either summer or fall quarter, due to registration timelines. Additional information is available at [admissions.wvu.edu/contact-us/appeals](http://admissions.wvu.edu/contact-us/appeals).

## University Residences

Edens Hall, 360-650-6565  
[housing.wvu.edu](http://housing.wvu.edu)

University Residences engages students in diverse and inclusive, healthy, safe and sustainable communities that foster academic success and personal growth. Western's residential experience is intentionally designed to help students learn about themselves, and how to live and work with others. Living on campus is completely optional, but new freshmen and transfer students who meet the housing deadlines are guaranteed housing their first year at Western; returning residents are accommodated on a space available basis. Extensive research demonstrates students living on campus earn higher grades and graduate in higher numbers than students living off campus. At WWU, about 93 percent of freshmen and 28 percent of transfer students choose to live on campus their first year. To be eligible for campus housing, undergraduates must be enrolled in a minimum of (10) credits per quarter, and graduate students must be enrolled in a minimum of (8) credits per quarter.

## University Dining Services

Edens Hall, 360-650-2970  
[www.campusdish.com/](http://www.campusdish.com/)

University Dining Services provides a campus-wide experience that supports active, healthy lifestyles, sustainability, social responsibility and community development. Three dining commons and a dozen cafés and markets serve the campus community with a variety of menu options that include vegan, vegetarian, gluten free and local fare. Meal plans and Viking Dollars are available to all members of the campus community. University Dining Services also offers full service, customizable catering for events of all sizes, on and off campus. University Dining Services is committed to sustainable practices in all aspects of its operations, including locally sourced food, compostable packaging, food composting, zero-waste catering and Fair Trade coffee. University Dining Services employs over 500 part-time student staff in its food service and catering operations.

# University Academic Policies

## Student Responsibility for Observing Policies

Students are directed to the Appendices section in this Catalog for information on university policies and administrative rules (Title 516 WAC), academic honesty, academic grievances, and other important policies. Information on university policies is also located on the university policy website: [www.wwu.edu/depts/policies/](http://www.wwu.edu/depts/policies/). Information on WWU's administrative code rules (Title 516 WAC) is located at [apps.leg.wa.gov/wac/default.aspx?cite=516](http://apps.leg.wa.gov/wac/default.aspx?cite=516).

The University attempts to make students aware of academic policies through the publication of the Catalog, the online Timetable of Classes, other materials, and in advising sessions. It is the student's responsibility to become familiar with

those policies and to be aware of any policy changes that may occur.

Once application materials have been submitted, they become the property of Western Washington University.

## E-Mail as Official Means of Communication

Recognizing the expanding reliance on electronic communication, WWU has determined that e-mail will be one of the University's official means of communication. See POL-U7100.02 Using E-mail Accounts for Official Correspondence with Students. E-mail correspondence will be sent to students' WWU e-mail addresses. Departments, faculty and staff may use e-mail instead of the U.S. Postal Service to provide students with information relating to official University business. U.S. Postal Service or campus mail can still be used as appropriate. This policy only applies to e-mail messages sent by the University to students that are designated as "WWU Official Communication."

College Board Advanced Placement Examinations			
Department	Score	Subject Examination	WWU Courses/Credit/GUR
Art and Art History	3, 4, 5	Art History	A/HI Electives (4 credits) Humanities GUR
	3, 4, 5	Studio Art: Drawing	ART Electives (4 credits)
	3, 4, 5	Studio Art: 2-D or 3D Design	ART Electives (4 credits)
Biology	3, 4, 5	Biology	BIOL 101, 102 (8 credits) Lab Science GUR
Chemistry	3, 4, 5	Chemistry	CHEM 121, 122 (10 credits) Lab Science GUR
Computer Science	3, 4, 5	Computer Science A/AB	CSCI 141 (4 credits) Quantitative & Symbolic Reasoning GUR
Economics	3, 4, 5	Microeconomics	ECON 206 (4 credits) Social Science GUR
	3, 4, 5	Macroeconomics	ECON 207 (4 credits) Social Science GUR
English	3	English Lit & Comp.	ENG Electives (4 credits) Humanities GUR
	4, 5	English Lit & Comp.	ENG 101 Communication GUR - Block A waived; ENG Electives (4 credits) Humanities GUR
	3	English Lang. & Comp.	ENG Electives (4 credits) Humanities GUR
	4, 5	English Lang. & Comp.	ENG 101 Communication GUR Block A waived; ENG Electives (4 credits) Humanities GUR
Environmental Science	3, 4, 5	Environmental Science	ESCI 101 (3 credits) Science GUR
General Elective	3, 4, 5	Capstone Program: AP Research	General Electives (3 credits)
	3, 4, 5	Capstone Program: AP Seminar	General Electives (3 credits)
Geography	3, 4, 5	Human Geography	ENVS 204 (4 credits) Social Sciences GUR
History	3, 4, 5	U.S. History	HIST 103, 104 (10 credits) Humanities GUR
	3, 4, 5	European History	HIST 113 (5 credits) Humanities GUR



	3, 4, 5	World History	HIST Electives (5 credits) Humanities GUR
Mathematics	3, 4, 5	Calculus AB or BC**	MATH Electives (5 credits) Quantitative & Symbolic Reasoning GUR
	3, 4, 5	Statistics	MATH 240 (4 credits) Quantitative & Symbolic Reasoning GUR
	**Student may receive credit for either AB or BC, but not both unless recommended by Mathematics Department after placement.		
Languages	3	Lang. or Lit. exam in Chinese, French, German, Italian, Japanese, Latin, Spanish***	101 (5 credits)
	4, 5	Lang. or Lit. exam in Chinese, French, German, Japanese, Latin, Spanish***	101, 102 (10 credits)
	4, 5	Italian Language & Culture	101 (5 credits) plus Electives (5 credits)
	***Student may receive credit for either Lang. or Lit., but not both		
Music	3, 4, 5	Music Theory	MUS Electives (3 credits)
Physics	3, 4, 5	Physics 1	PHYS 114 (5 credits) Non-Lab Science GUR
	3, 4, 5	Physics 2	PHYS 115 (5 credits) Lab Science GUR
	3, 4, 5	Physics 1 & 2	PHYS 114, PHYS 115, PHYS 116 (5 credits Science GUR plus 10 credits Lab Science GUR)
	3, 4, 5	Physics B	PHYS 114 (5 credits) Non-Lab Science GUR
	3, 4, 5	Physics C: Mechanics	PHYS 161 (5 credits) Lab Science GUR
	3, 4, 5	Physics C: Electricity and Magnetism	PHYS 162 (5 credits) Lab Science GUR
Political Science	3, 4, 5	U.S. Government & Politics	PLSC 250 (5 credits) Social Science GUR
	3, 4, 5	Comparative Government and Politics	PLSC 291 (5 credits) Social Science GUR
Psychology	3, 4, 5	Psychology	PSY 101 (5 credits) Social Science GUR

## Credit by Exam, Prior Learning and Advanced Placement

Advanced Placement, Prior Learning Credit and Credit by Exam is granted only to matriculated students. The maximum credit granted for any combination of Advanced Placement, Prior Learning and Credit by Examination is 45. Additional credits which exceed 45 and carry GUR applicability may be used to satisfy the GUR. Decisions will be made on a case-by-case basis.

### 1. Western Washington University Advanced Placement

One quarter of successful performance in an advanced course in a sequence which is developmental in nature can, upon departmental recommendation, qualify a student for credit in the preceding course; admission to the advanced course is subject to permission of the department.

### 2. Western Washington University Course Challenge

Challenge examination or procedures

prepared by the department concerned. The following regulations govern course challenges:

- Students desiring to challenge a course should apply to the Testing Center by the fourth week of the quarter. The time and procedure to be followed in completing the evaluative process will be announced by the Testing Center. A special fee is charged for each challenge examination. See Tuition and Fees.
- If the challenge is passed, the result of the challenge is recorded as "Satisfactory" on the student's permanent record and is not used in computing grade point averages
- The challenge application will normally be denied:
  - If the student is currently enrolled in the course
  - If the student has previously established credit for a similar course at this or another institution
  - If the student has previously failed the course

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- If the student has previously challenged the course and failed
- If the student has previously audited the course
- If, in the judgment of the director of the Testing Center, in consultation with the department concerned, the challenge procedure is inappropriate
- If the student is in his/her final quarter prior to graduating and the course is part of the General University Requirements
- If, in the judgment of the academic department, the student has not demonstrated sufficient familiarity or understanding to have a reasonable chance of passing a challenge examination

### 1. Prior Learning Credit

Western Washington University will award credit for prior learning on a case by case basis. Students seeking prior learning credit must apply to the Registrar's Office within 6 weeks of their first term of enrollment after admission. The Registrar's Office coordinates and documents the petition review with the applicable academic department. Academic departments and affiliated faculty are considered experts and specialists in their respective disciplines and therefore the authority in evaluating prior learning experience, equivalency in credit and relationship to degree. The Registrar's Office will award prior learning credit as approved by academic departments.

### 2. International Baccalaureate (IB)

Western Washington University will grant 15 credits for each approved higher level International Baccalaureate subject examination passed with a score of four (4) or above according to the chart. In accordance with the previously stated university policy, a maximum of 45 credits for any combination of Advanced Placement and Credit by Examination will be granted. Higher level subject exams

may earn a student General University Requirement (GUR) credit or elective credit, according to the following chart. Not all subject exams earn credit. The department of Art and Art History does not grant credit for IB exams, but may use the exam results for purposes of program placement and/or course waivers. Students who have passed higher level exams in subjects not listed on the chart will need to consult with the Office of Admissions. Such exams will be considered on an individual basis to determine eligibility for elective or GUR credit.

### 3. College Board Advanced Placement Examinations in certain subjects.

The department concerned has determined the minimum acceptable score and credit as shown on previous page.

### 4. University of Cambridge International Exams.

WWU will grant 15 credits for approved A-level examinations and 7.5 credits for approved AS-level examinations with passing grades of A-E. Credit will not be granted for both an A-level and an AS-level exam in the same subject area. Some exams may also apply to GUR. In accordance with the previously stated university policy, a maximum of 45 credits will be granted for any combination of Advanced Placement and Credit by Examination. Students should submit official results of the Cambridge International Exams to the Office of Admissions for determination of transfer credit. At the time of this catalog's publication, the following exams will not result in credit:

- Applied Information and Communication Technology
- Computing/Computer Studies/Computer Applications
- Design and Technology
- General Paper
- Thinking Skills
- Use of English

International Baccalaureate (IB) Credit		
Higher Level Subject Exam	Score	WWU Equivalency, Credits and GUR status if applicable
Arabic	4 or higher	ARAB 101 (5 credits), ARAB 102 (5 credits) and ARAB 103 (5 credits) - BCOM GUR
Biology	4 or higher	BIOL 101 (4 credits) Lab Science and BIOL elective (11 credits) - Satisfies Natural Science GUR
Chemistry	4 or higher	CHEM elective (15 credits) - Satisfies Natural Science GUR

Chinese	4 or higher	CHIN 101 (5 credits), CHIN 102 (5 credits) and CHIN 103 (5 credits) - BCOM GUR
Computer Science	4 or higher	CSCI elective (15 credits)
Economics	4 or higher	ECON elective (10 credits) - Social Science GUR and ECON elective (5 credits)
English	4 or higher	ENG 101 (5 credits) - Communication Block A GUR and ENG elective (10 credits) - Humanities GUR
French	4 or higher	FREN 101 (5 credits), FREN 102 (5 credits) and FREN 103 (5 credits) - BCOM GUR
Geography	4 or higher	ENVS elective (5 credits) - Natural Science non-lab GUR and ENVS elective (10 credits) - Social Science GUR
German	4 or higher	GERM 101 (5 credits), GERM 102 (5 credits) and GERM 103 (5 credits) - BCOM GUR
History The Americas	4 or higher	HIST elective (10 credits) - Humanities GUR and HIST elective (5 credits) - CGM Block B GUR
History European	4 or higher	HIST elective (10 credits) - Humanities GUR and HIST elective (5 credits) - CGM Block A GUR
History World	4 or higher	HIST elective (10 credits) - Humanities GUR and HIST elective (5 credits) - CGM Block A GUR
Italian	4 or higher	ITAL 101 (5 credits) and ITAL elective - BCOM GUR
Japanese	4 or higher	JAPN 101 (5 credits), JAPN 102 (5 credits) and JAPN 103 (5 credits) - BCOM GUR
Latin	4 or higher	LAT 101 (5 credits), LAT 102 (5 credits) and LAT 103 (5 credits) - BCOM GUR
Physics	4 or higher	PHYS elective (15 credits) - Satisfies Natural Science GUR
Psychology	4 or higher	PSY elective (5 credits) - Social Science GUR
Russian	4 or higher	RUSS 110 (5 credits), RUSS 120 (5 credits) and RUSS electives (5 credits) - BCOM GUR
Spanish	4 or higher	SPAN 101 (5 credits), SPAN 102 (5 credits) and SPAN 103 (5 credits) - BCOM GUR
Swahili	4 or higher	General Elective (15 credits) - BCOM GUR

## Course Numbering

Courses numbered from 100 to 299 are classified as lower division; those numbered from 300-499 as upper division. Generally, the first digit of a course number indicates its intended class level:

- 100-199 — First-year (freshman) courses
- 200-299 — Second-year (sophomore) courses
- 300-399 — Third-year (junior) courses
- 400-499 — Fourth-year (senior) courses
- 500-699 — Graduate-level courses

Only courses numbered 100 or above appear on the official transcript.

Except in unusual circumstances, students are not permitted to take courses more than one year above their class standing. Any undergraduate student wishing to enroll in a course numbered 500 or higher must obtain approval (an override) from the instructor and the Graduate School. (See the Graduate School section of this catalog.)

The numbers 197, 297, 397, 497 and 597 are used for temporary courses.

The number 117 is reserved for First Year Experience (FYE) courses.

The number 699, continuous enrollment, is reserved for master's degree students in their final

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quarter who have registered for all their course work. Contact the Graduate School for further information.

The numbers 137, 237, 337, 437, 537 are reserved for Faculty-led Global Learning Programs. These courses are offered through the WWU International Studies program or through colleges. Contact the Education Abroad office, Miller Hall 208, for information. Repeatable with different subject matter.

The numbers 300, 400, 500 are reserved to designate Directed Independent Study (1-15), enabling students to pursue, on an individual basis, topics not covered by the curriculum.

### **Courses listed in this General Catalog constitute a record of the total academic program of the University.**

Except for unforeseen scheduling and personnel circumstances, it is expected that each course will be offered during the period of this catalog. In some cases, a new course may be offered in the Summer Session prior to appearing in the General Catalog. Such a course would be described in the Summer Session website.

For an exact scheduling of courses at Western and details regarding titles, prerequisites, number of credits and grading for specific courses not listed in this catalog, students should consult the annual online Timetable of Classes, Classfinder or the Summer Session website for summer quarter.

### **Prerequisites**

The student is responsible for ensuring that he or she has satisfied all prerequisites, with a grade of C- or better, before registering for a given course. Although some prerequisite enforcement is driven by the Web registration system, students should not assume they are eligible to enter a course without having taken the prerequisite just because the system allows them to register for the course. A student who has registered for a course without satisfying prerequisites or obtaining permission may be required by the instructor to withdraw from the course. If an instructor requires a student to withdraw from a course because a prerequisite is not satisfied, the student is responsible for doing so via Web4U or in person in the Registrar's Office. All tuition, fees and withdrawal related deadlines apply.

### **Waitlisting & Registration**

When a course reaches capacity during Phases I, II and III of registration, students may add themselves, via Web4U, to an automatically-generated waitlist. Before waitlisting is allowed,

students must meet all course prerequisites and other course restrictions listed in the University Catalog, the online Timetable of Classes, and Classfinder

When a seat becomes available in a waitlisted class, an automated email message is sent to the official WWU email address of the first student on the waitlist, notifying the student of the available seat. Students may also sign up to have waitlist notifications and other official WWU communications sent via text message. Students who receive notification of seat availability are responsible for registering via Web4U before the notification expires. During Phases I and II, notifications are active for 24 hours from the time the notification is sent, and for 12 hours during Phase III. The notification expires if the student does not register within the time allowed. A notification is then sent to the next student on the waitlist. All other registration policies are applicable when waitlisting services are active.

Further details on waitlisting and how to sign up for text message delivery can be found under Registration on the Registrar's Office website.

### **Credits and Credit Loads**

Credits are assigned to a class based on the amount and type of work expected from a typical student in class. Credit is awarded for courses only in the quarter in which the student is registered for the classes and completing the work.

Classes will be assigned one credit for each hour per week of classroom discussion or lecture, and one credit for every two hours per week of laboratory or practice/rehearsal involving some preparation or reporting.

Classes using different formats for at least part of the course will be assigned credit for amounts and types of work equivalent to those described above. When such a component is proposed, the type and amount of work involved must be described in detail. In particular, the activity for which credit is assigned must be structured and occur at regular or periodic intervals throughout the course, and faculty must supervise and evaluate students' work in this activity.

Since each hour in a course requires at least two additional hours of study, and since students usually register for several courses, Western has established the following credit load policies for undergraduate students:

- The standard fulltime load per quarter for undergraduates is 15 credits. In order to graduate in four years, students must

average 15 credits per quarter. **NOTE:** some majors require more than four years of study.

- During the first quarter of residence, a load must not exceed 17 credits; before registering for more than 15 credits, students should consult with their advisors
- After the first quarter of residence, the maximum allowable load is 20 credits per quarter; students are limited to 17 credits during Phase I of registration
- Employed students are advised to adjust their credit load accordingly

## Correspondence Credit

Correspondence credit earned through a fully accredited college or university, including Western's Independent Learning program, may be accepted toward the bachelor's degree. Some departments limit the number of correspondence credits that may apply toward the major. Enrollment in only correspondence courses through Western's Independent Learning program does not qualify as continuing enrollment for newly-admitted, first quarter Western students. Contact the Registrar's Office for information regarding student status.

## Non-Matriculated Students and Credit Limitations

A program for non-matriculated students allows community members not admitted to Western and undergraduate/certificate extension program students to enroll in Bellingham campus courses. Non-matriculated students are not eligible to register or get on waitlists until the first day of the quarter. Students who have been dismissed from Western due to low academic standing may not enroll as non-matriculants except during summer quarter.

A student must be admitted to Western to apply credit to a degree. A maximum of 45 credits earned as a non-matriculant may be accepted toward a bachelor's degree at Western. Contact the Graduate School for information on applying credit to graduate programs.

Students enrolled as non-matriculants are subject to all University academic policies as enumerated in this section of the catalog. They must maintain good academic standing according to University scholarship standards. Continued low scholarship will result in the loss of future registration privileges.

## Auditing Courses

Auditors are persons who desire to attend courses without earning credit. Written permission from the instructor and approval from the Registrar's Office are required to register to audit a class.

Auditors may not actively participate in class and therefore certain courses may not be audited, including, but not limited to physical education activities, laboratory courses, studio courses, independent study courses, language courses, courses not taught in a group setting, and any other course the Registrar deems ineligible. Auditing a course cannot be used toward successful completion of academic credit.

Auditors are not allowed to register until the first day of the quarter, and the course must not have reached maximum enrollment. Changes to or from audit cannot be made after the first five days of the quarter.

Students enrolled for 10 or more non-audited credits may audit a course without an additional charge. Students enrolled for less than 10 credits should refer to the Tuition and Fees section "Auditing a Class." Students approved to register for an audit are responsible for paying any course fees attached to the course. Students who choose to audit self-supporting classes through Extended Education are required to pay the full amount of tuition and fees.

## Special Registration Privileges

The Registrar's Office grants course registration privileges on a space-available basis fall, winter and spring quarters, for one term at a time, to auditors, Washington State employees, and Washington residents 60 years of age and older who are eligible for tuition reduction. Tuition reduction for summer quarter is available to WWU employees only. Written permission from the professor is required to audit a class. Special students and auditors must submit a Special Student Enrollment Form and/or the applicable tuition/fee waiver application to the Registrar's Office 2-3 weeks prior to the beginning of each quarter. The forms can be found online at: [www.wvu.edu/registrar/student\\_services/index.shtml](http://www.wvu.edu/registrar/student_services/index.shtml).

## Class Standing

An undergraduate student is classified as a freshman when his or her total completed credits (including transferred credits) range from 0 to 44, a sophomore with credits of 45 to 89, a junior with credits of 90 to 134, and a senior with credits of 135 or more.

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## Full-Time Status

180 credits are the minimum number of credits required to graduate with a bachelor's degree from Western Washington University. Many majors require more than the minimum of 180 credits. In order to graduate in four years, a student should plan to enroll in an average of 15 credits each quarter. Undergraduate students must be enrolled for a minimum of 12 credits in order to be considered full-time (e.g., eligibility for financial assistance, full-time veterans' benefits, participation in intercollegiate athletics, etc.) Graduate students, officially admitted to the Graduate School must be enrolled in a minimum of 8 credits for financial aid purposes and veterans' benefits. Students are advised to check carefully to determine that they meet the definition of "full-time enrollment" for the program in which they are participating.

The following table illustrates the minimum number of credits to be considered full time, three-quarter, or half time each quarter for specific eligibility, aid and benefit related services and agencies. Full fees are assessed to all students enrolled in 10 credits or more. Students enrolled in at least 10 credits are eligible to live in on-campus housing, hold Associated Student office and obtain on-campus student employment.

The Student Health Center is available to all students enrolled in 6 or more credits on WWU's Bellingham campus. Students registered for 3 to 5 credits have the option of paying the Health Services fee to use the services during a quarter. Former students, students on leave, dependents of students, faculty and staff of WWU, and Whatcom Community College students living on WWU's campus are not eligible for these services.

Graduate students must be enrolled in a minimum of 8 credits to be eligible for graduate teaching assistantships (TAs). If a graduate student has completed all the course work listed on the approved plan of study with the exception of the thesis (690) or research (691), the graduate student may remain eligible for the TA appointment by enrolling for as few as 2 credits (with prior approval from the Graduate School). Other graduate students who have completed all the course work listed on the approved plan of study with the exception of the thesis (690) or research (691) should consult with the Graduate School regarding the minimum credit requirements.

This table applies to fall, winter and spring quarters only. Enrollment status and requirements for summer may differ. Please consult the appropriate program office.

	Undergraduate	Graduate
Full time (for financial aid eligibility, veteran's benefits, athletic eligibility, enrollment verification to outside agencies)	12 or more credits	8 or more credits
Three-quarter time (for financial aid eligibility, veteran's benefits, enrollment verification to outside agencies)	9, 10 or 11 credits	6 or 7 credits
Half-time (for financial aid eligibility, loan deferments, enrollment verification to outside agencies)	6, 7 or 8 credits	4 or 5 credits

## Adding a Course

A student may add a course to an existing schedule as late as the fifth day of the quarter. After that time, course additions are allowed only under unusual circumstances and require written permission or current override from the course instructor or department. A special late-add fee is charged when adding after the second week (see Tuition and Fees section).

## Class Attendance

Students are expected to be prepared for class and to be in attendance for all class meetings unless directed otherwise by their instructor. Attending the first meeting of every class is critical to academic success and being absent from the first class meeting without discussing the absence with the instructor in advance may result in being asked to withdraw from the course.

A student absent from any exam or class activity through sickness or other cause judged by the instructor to be excusable shall be given an opportunity to take a rescheduled exam or make up the class assignment in a timely manner agreed upon by the instructor (see Leaves of Absence). Examples of excused absences may include participation in University-sponsored activities such as debating contests, musical or theatrical performances, or intercollegiate athletic competition. Students involved in university sponsored activities who know of a scheduled event or activity they will participate in that will result in a class absence are expected to notify their instructor early in the academic term to determine alternative arrangements for missed material, assigned work or examinations.

University policy does not allow a student to attend or participate in a class without formally being registered for it. It is the student's responsibility to ensure that he or she is properly registered for each course in their schedule.

## Withdrawal from a Course

Single course withdrawals that occur prior to the sixth day of the quarter are considered to be a change of initial registration and results in no entry on the permanent record (transcript). To withdraw from a course during the first five days of the quarter, a student must complete the transaction on Web4U. If withdrawing from all courses on or after the first day of the quarter, it is considered a 'school withdrawal' and it is recorded on the official transcript as a grade of SW (see Withdrawal from the University).

Course withdrawals that occur from the beginning of the sixth day of the quarter to the end of the second week will result in no entry on the permanent record (official transcript), but a mark of "XM" will appear with the withdrawn course on the unofficial record (academic history). If withdrawing from your only class during the second week, a grade of SW will appear on the permanent record. Withdrawals that occur beginning the sixth day of the quarter may affect a student's tuition charges and may result in a credit of half of applicable tuition only. Fees are not refunded after the fifth day of the quarter. There also may be implications for financial aid recipients' awards. Beginning with the sixth day of the quarter, a student must complete the withdrawal in person at the Registrar's Office in Old Main 230, during regular business hours. Beginning the third week of the quarter, a mark of "W" is posted for each withdrawn course.

Course withdrawal from the beginning of the third week to the end of the seventh week is permitted only if the student has an unused annual withdrawal privilege. Each student is granted two annual withdrawal privileges at the beginning of the academic year in fall quarter. The annual withdrawal privileges can be used during fall, winter, spring or summer quarter. (See Summer Session for summer course withdrawals.) Unused annual withdrawals cannot be used in subsequent years. To use an annual withdrawal privilege, a student must complete the withdrawal in person at the Registrar's Office.

After the seventh week of the quarter, course withdrawal is not permitted. Discontinued attendance without official withdrawal results in a failing grade (Z or F). Course withdrawal deadlines are published in the dates and deadlines section of the Registrar's Office website and the Summer Session website.

To withdraw from an extension course, a student must file the appropriate form through the extension office. For specific site information, see the Extended Education section in this catalog.

Students may drop an Independent Learning course by contacting the Independent Learning Office in writing. There is no refund 30 days after registration.

## Withdrawal from the University

Withdrawal from the University, including self-supporting program, may be made at any time before the final two weeks of a quarter. After the first five days of the quarter, students must initiate the withdrawal process in the Registrar's Office or at their extension site. The official date of withdrawal has significant impact on determining a student's remaining balance due or refund/credit (see the Registrar's Office quarterly Important Dates and Deadlines for exact deadlines\*\*). Students, especially students receiving financial aid, are strongly encouraged to seek information from both the Financial Aid Office and the Student Business Office prior to withdrawing from the University. A withdrawing student who will be away from Western a full quarter or more, except summer quarter, must apply for readmission prior to the deadline stated in the Undergraduate Admission section of this catalog.

The official date of withdrawal is the date of the final withdrawal transaction whether through Web4U or in the Registrar's Office. A student's intent to withdraw begins when the student makes initial contact with the Registrar's Office and initiates the Notification of Student's Intent to Withdraw from All Classes Form. The difference between the student's intent to withdraw date and the official date of withdrawal may delay the determination of a student's outstanding balance due or refund/credit. Students are encouraged to complete the university withdrawal process in a timely manner.

Beginning the first day of classes, including withdrawal from the institution, a grade of SW (school withdrawal) is posted on the permanent record for each course for which the student was registered.

Upon registering for courses, students incur a legal debt to the University. When a student leaves the University at any time without formally withdrawing, or the student decides not to attend classes without formally withdrawing via Web4U or at the Registrar's Office, the student's account balance remains due in compliance with all deadlines. Choosing to not attend classes does not result in automatic withdrawal from classes or relief from any financial balance due the institution

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and will result in failing grades on the official transcript. Enrolled students who do not attend and who fail to withdraw from the institution may use the Registrar's General Petition to request an exchange of failing grades for school withdrawal notation. Formerly enrolled students who did not attend and are approved for withdrawal through the General Petition process are still responsible for any outstanding financial balance due the institution.

\*\* Summer Session withdrawal deadlines vary depending on the length of the course. See the Summer Session website for details.

### Hardship Withdrawal

A student who is unable to complete the quarter or a class due to a significant hardship may petition to withdraw from the University or a course after the stated deadline. Hardship is considered to be an incapacitating illness or injury requiring extensive recuperation or a significant personal emergency such as a death in the immediate family. **Verification of the hardship is required.**

Petitions for the withdrawal due to hardship are available in the Student Life Office and must be submitted by the deadline determined by the Student Life Office. A complete school withdrawal results in grades of SW for each course for which the student was registered. If the student qualifies for a partial withdrawal, a grade of W is posted for those courses.

Students approved for a partial or full Hardship Withdrawal are still responsible for any outstanding financial balance due the institution. Refund/credit of tuition and some fees may apply and are processed based upon the student's Last Date of Attendance. The Last Date of Attendance is reported by the student on the Hardship Withdrawal Petition and may be verified by a staff member of the Student Life Office or staff member of the Registrar's Office. The Last Date of Attendance is the last known date when the student actively engaged or participated in learning activities, to include attending class, reading or responding to online materials or discussions, completing an exam or quiz, or discussing in-person or via email with the instructor regarding the class.

Summer withdrawal deadlines and policies are published on the Summer Session website.

### Emergency Leaves of Absence

A leave of absence from classes may be granted when psychological or family emergency, illness or injury requires a student to be absent from class.

Leaves of absence are issued only upon request from the student and may be granted for two days, but no more than five days during an academic quarter or summer session. If a faculty member requires official notification of student medical or emergency leaves of absence, the faculty member will inform the students in his/her courses of that fact in the course syllabus. (Non-medical leave or absence are available through the Office of Student Life, Dean of Students Office. Medical leave of absence is provided through the Student Health Center.) **All leave of absences require proper verification.**

While a leave of absence generally makes it possible for the student to make up work missed, in some instances the amount of time lost makes course completion impractical. In those cases, withdrawal or incomplete grades may be appropriate. A student absent from any exam or class activity through sickness or other cause judged by the instructor to be excusable shall be given an opportunity to take a rescheduled exam or make up the class assignment in a timely manner agreed upon by the instructor. Examples of excusable cause may include participation in university-sponsored activities such as debating contests, musical or theatrical performances, or intercollegiate athletic competition. The student should consult with the course instructors and/or the Dean of Students Office.

### Insufficient Progress Toward Degree and Registration Holds

The University reserves the right to deny access to classes by students who make insufficient progress toward a degree or major. Insufficient progress toward a degree is determined by the Registrar in consultation with academic and administrative officials. Insufficient progress toward major is determined by the department chair in consultation with the Registrar. Students who fail to make progress toward a degree or who repeatedly withdraw from the University after registering may have their enrollment privileges suspended. Students on probation who repeatedly register for Pass/No Pass or Satisfactory/Unsatisfactory courses may have their registration privileges suspended. Students who fail to declare a major by the time they reach 105 credits may not be permitted to register. Students who reach 210 credits without graduating or submitting a degree application or approved plan of study may not be permitted to register.

#### Criteria for determining Insufficient Progress

Degree-seeking students who fail to make progress toward a degree based on one or more of the



following components of evaluation may have their enrollment privileges suspended or other administrative action taken (conditions that would be applied to help students succeed academically):

- Continuing students with a net completion rate of fewer than 80% of credits attempted at WWU (excludes courses dropped before the second Friday of the quarter)
- Students with repeated coursework in more than three courses or any single course more than once.
- Students who earn a quarterly grade point average below 2.0 for two or more consecutive quarters
- Students who take more than two course withdrawals of any type (late course withdrawal, hardship withdrawal, school withdrawal) within a calendar year (September 1 - August 31)

## Finals Preparation Week

The week immediately preceding final examination week is known as finals preparation week and provides the following protections which enable students to complete their studies without undue hardships:

- Final examinations must be administered at the date and time specified in the final examination schedule, with the exception of laboratory-section final exams
- During finals preparation week, no examinations shall be administered; exceptions may be made if there is agreement of the instructor, the appropriate department chair and/or dean, and the entire class membership
- No graded assignments shall be introduced during finals preparation week
  - Students may consent, on an individual basis, to accept new graded assignments for purposes of extra credit and/or makeup for previous assignments
  - Instructors must have notified students in writing, by the end of the course's fifth week, of any graded assignments whose due dates fall during finals preparation week

The term "graded assignments" refers to written or oral presentations which are a required component of class performance and which are utilized in determining students' letter grades or evaluations

for the quarter. Examples include essays, papers, research projects and class presentations or quizzes.

## Final Examinations

Final examinations, given in most courses at Western, are administered according to a schedule published in the online Timetable of Classes. **The scheduled days and hours for these examinations may not be changed. The final examination is normally held where the course meets.**

All final examinations are scheduled during the last week of the quarter, which is known as final examination week. No final examinations except laboratory finals — whether for a whole class or part of a class or an individual — may be given before final examination week. This means that students may not petition faculty for early final examinations and that students should plan their end-of-quarter schedules in the expectation of final examinations in all courses. In the rare cases where final examinations are not given, instructors will notify students at the beginning of the quarter.

A student who fails to take a final examination without making prior arrangements acceptable to the instructor receives a failing grade for the course. Under unusual circumstances, an instructor may allow a student who has been making satisfactory progress in the course to take a late final examination and receive a temporary incomplete (K) grade. This privilege is available only to students who have been making satisfactory progress in the course. It is recommended that the incomplete grade given in this manner should be completed early during the next quarter. See additional details noted in the section 'The Incomplete (K) Grade'.

If the final examinations schedule causes a student to take three or more examinations in one day, any of her or his instructors may arrange an examination **later** during finals week.

There is no final examination week in summer session. Course requirements are determined by each instructor.

## Grades and Grade Reporting

At Western, grades describe both a student's mastery of subject matter and the ability to communicate that mastery in examinations, essays, demonstrations and discussions. The three grading systems are described below. (Fairhaven College is authorized to follow a different system described in the Fairhaven College of Interdisciplinary Studies section of this catalog.)

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## A-F Grading

Most courses at Western are graded on the traditional A-F system. The grades that may be earned under this system, and their values for GPA calculation (see "Grade Averages" below), are as follows:

A (excellent), 4.00; A-, 3.70; B+, 3.30; B (good), 3.00; B-, 2.70; C+, 2.30; C (fair), 2.00; C-, 1.70; D+, 1.30; D (poor), 1.00; D-, 0.70; F (failure), 0.00; Z (failure due to discontinued attendance without withdrawal), 0.00; K (incomplete), X (missing grade); XM (course withdrawal during second week of quarter; mark appears on academic history, but not on official transcript); W (course withdrawal after the second week of the quarter; mark appears on both the academic history and official transcript); SW (school withdrawal; mark appears on each course when school withdrawal occurs on first day of quarter or later).

## Satisfactory/Unsatisfactory Grading

Some courses are graded on the Satisfactory/Unsatisfactory system. For these courses, appropriate curricular agencies have determined that the traditional A-F system is inappropriate. If a course has been approved for S/U grading, the only grades that may be assigned are S, U and K. Neither S nor U is considered in the calculation of grade averages.

All S/U courses are identified in the course descriptions of this catalog and in the online Timetable of Classes.

## Pass/No Pass Grading

Students may choose the Pass/No Pass grading option in certain elective courses. The minimum level of performance required to receive a grade of P varies from course to course and is determined by each instructor or department. Students should not assume that performance equal to a grade of D or higher will result in a passing mark. Often performance at the level of C or higher is required. Regulations pertaining to Pass/No Pass grading are as follows:

- Courses graded Pass/No Pass may not be applied to the major and minor, supporting courses, professional education requirements, upper-division writing proficiency requirement and General University Requirements
- Graduate courses taken for the graduate degree cannot be taken Pass/No Pass
- Courses graded Satisfactory/Unsatisfactory cannot be taken Pass/No Pass

- To designate a course as Pass/No Pass students must submit a request at the Registrar's Office after registering for the course; they may change this designation by submitting the change to the Registrar's Office at any time through the fourth week of a quarter. For extension program courses or Summer Session, please see Summer Session or Independent Learning deadlines.
- Prerequisites, work required and credit allowed may be affected by election of the Pass/No Pass option
- In computing grade averages, neither the P nor NP grade in Pass/No Pass courses is counted
- Should a student change his or her major or minor, the academic departments involved are the sole judges of the acceptability of any Pass/No Pass courses already completed in the newly chosen major or minor
- Once a student has earned NP grades in courses totaling 10 credits, he or she may no longer register for courses under the Pass/No Pass option
- MATH 099 is a non-credit course that does not appear on the official transcript but will appear on the academic history. A grade of YP indicates pass, a grade of YN indicates no pass, and a grade of YK indicates incomplete. These grades are not calculated into the student's grade point average or earned credits.

**NOTE:** Excessive use of the Pass/No Pass grading system may negatively influence admission to some graduate or professional schools.

## The Incomplete (K) Grade

The grade of K (incomplete) may be assigned under all grading systems. It may be assigned only upon request of the student and agreement of the course instructor. Normally it is given only to a student who has been in attendance and has been doing passing work until the final two weeks of the quarter when extenuating circumstances beyond his or her control make it impossible to complete course requirements on schedule. (Extenuating circumstances do not include mere lateness in completing work, the desire of a student to do extra work to raise a poor grade, et cetera.)

To receive a K grade, a student must print a contract form and negotiate a formal agreement with the course instructor specifying the work done and the remaining work to complete the course and earn a grade. One copy is kept by the student and one by the faculty member.

Normally, the student completes the work agreed upon during the next quarter and a final grade is submitted by the instructor. After one year, however, if a final grade has not been submitted, the K automatically reverts to a failing grade (Z), and the student may establish credit only by registering again for the course. (Grades of K earned in thesis courses numbered 690 do not lapse to failure.) Once a final grade has been submitted, the student's record will show the K grade as well as the final grade. In no case will a final grade replacing a K affect the student's academic standing in the quarter in which the final grade is assigned.

Completing a K grade (and recording it with a final grade) will not affect the student's faculty action (scholarship standing) for the quarter in which the K was assigned, nor will it affect the faculty action for the quarter in which the final grade is recorded if the grades and faculty action for that quarter have already been submitted. However, it will affect the cumulative grade point average as soon as the final grade is recorded.

A student who receives an incomplete in a required course the final quarter before graduating must complete the course within two weeks of the end of that quarter in order to graduate at that time. If the course is completed after two weeks, the prospective graduate is subject to resubmitting the degree application and registration in another course to satisfy the final-quarter-in-residence rule.

## Grades and Academic Honesty

Grades are given for the student's work and achievement. Fair evaluation of students' work and helpful instruction are possible only when students submit work which genuinely reflects their own reading, computation, research and thoughts and is their own production, whether in writing or other format(s). Academic dishonesty can result in a failing grade and the placement of a note in the student's permanent record. For the University's policy on academic honesty, see Appendix D in the Appendices section of this catalog.

## Grade Averages (GPA)

To determine a grade average, points are assigned to each grade earned under the A-F grading system (A = 4.00, B = 3.00, et cetera. See A-F Grading). The point value of each grade is multiplied by the number of credits assigned to the course. Total points are then divided by total credits attempted. Thus, a student who earns a five-credit A, five-credit B and a five-credit F has earned a quarterly average of 2.33 (35 points divided by 15 credits attempted).

A grade average of 2.00 (C) represents the minimum acceptable level of performance to remain in good standing at the University. Higher grade averages may be required for admission to or retention in certain major programs.

Only grades earned at Western are calculated in determining a student's quarterly or cumulative grade average.

Grades of S, U, P, NP, AUD, K, X, W, XM, YP, YN, YK and SW are not included in GPA calculation.

## Grades Yielding Credit

Credit is granted for courses completed with grades of D- or higher on the A-F grading system and for grades of P and S. The grades of D+, D and D-, however, represent a level of work that is unacceptable in a student's major or minor, supporting courses for majors and minors, ENG 101, and the courses that satisfy a student's upper-division writing proficiency requirement. Professional education courses required for teacher education programs and courses required for state teaching endorsements must be completed with a grade of C (2.0) or better.

## Repeating a Course

A few courses are approved to be repeated for credit. Such approval is included with the course descriptions in this catalog. If a course not designated as repeatable for credit is retaken, the following will apply:

- Credit will be awarded only once for a repeated course
- All grades earned for a given course will be considered in calculation of the student's cumulative grade average and all grades remain on the record; a failing grade assigned subsequent to earning a passing grade in a repeated course will nullify the credit earned initially with the passing grade
- Students wishing to repeat a class in which they already received a P, S, or C- or better grade may not register for the class until Phase III of registration. Students, in this circumstance, who register for a repeated course prior to Phase III may be required to drop the course by the academic department or Registrar's Office. The repeat registration for English composition prior to Phase III requires the written permission of the chair of the department.

Please note that Western's registration system will not prevent a student from registering for a course

## UNIVERSITY ACADEMIC POLICIES

in which the student has already received credit therefore students are responsible for ensuring they do not repeat courses unintentionally.

Also note that departments may require Graduate students to repeat a course in order to attain an acceptable level of competence. The rules above apply to any repeated course. Graduate students should review the Scholarship Standards under the Graduate School section of the catalog.

### Final Grades

Final grades are assigned at the end of each quarter and are available to students on Web4U. An accurate representation of final grades, quarterly and cumulative grade point averages, credit completion totals and academic standing does not occur until 4-5 business days after final examination week.

### Grade Changes

Once a grade has been filed with the Registrar, it is regarded as final. Except for the conversion of incomplete (K) marks, grade changes are accepted only under the following circumstances:

It is discovered that the grade resulted from clerical error in transcription or recording. Requests for change to correct these errors must be made in writing to the Registrar by the course instructor and only during the quarter immediately following original issuance of the grade.

The Registrar may be instructed to change a grade as the result of the academic grievance procedure.

The Registrar may be instructed to change a grade if it is determined that the grade resulted from academic dishonesty.

### Fresh Start

A former Western undergraduate student who returns to the University after an absence of five years or more may be given permission to start a new cumulative grade average. To be eligible, the student must be returning to Western as an undergraduate and cannot have taken any Western courses (including extension, correspondence, and cyber) during the five-year absence. The absence begins from the last day of the quarter of previous enrollment.

The Fresh Start application deadline is the end of the first week of the quarter in which the student returns. **The application should be submitted to the Registrar's Office.** Students who have been dropped for low scholarship, even if absent for five years or more, must pursue reinstatement. See Reinstatement section below.

Undergraduates who might be considering applying for the master's degree at WWU should contact the Graduate School office for information about the implications of having been given an undergraduate Fresh Start.

Post-baccalaureate students and students in graduate programs are not eligible for Fresh Start. An undergraduate student can be granted only one Fresh Start.

### Honors

Students at Western may be eligible to earn the following awards/distinction that are entered on their permanent academic records.

#### Presidential Scholar Award

In 2000 in honor of Western's Centennial, President Karen W. Morse instituted the Presidential Scholars Award to honor graduates for their exceptional scholarship and service to the university and community.

One award will be granted per college (one award per division of Humanities and Social Sciences). The deans will nominate candidates based upon recommendations from the faculty, in accordance with customary college practice. The seven graduation seniors exemplify the University's goals of academic proficiency, advancement of diversity, and service to the community.

These awards are presented annually at Western's spring commencement ceremonies.

#### Outstanding Graduate Award

This award was initiated in 1978 jointly by the Registrar and Director of Alumni. Recognition is based on criteria decided entirely by each academic department. Faculty members from academic departments and programs select one graduate to honor as the Outstanding Graduate of the year. Selection is a high honor based on a combined excellence in academics, leadership stewardship to the department and/or university, research and writing, service to the campus and community, and promise for the future.

#### Departmental Honors & Distinction

Several academic departments recognize students achieving certain levels of distinction in the departmental major. Individual department eligibility requirements are listed in the department catalog section and the respective program of study in the catalog if the particular department is recognizing this achievement.

## Quarterly President's List (Honor Roll)

Each undergraduate student whose quarterly grade average places him or her at the 90th percentile or higher among students of the same class (freshman, sophomore, et cetera) shall be placed on the President's List. The term "honor roll" shall be affixed to the student's permanent academic record for that quarter. To be eligible for the quarterly President's List, a student must be enrolled officially in a division of Western Washington University which employs the A-F grading system and must complete at least 14 credits that quarter on the A-F grading system.

## Graduation Honors

Graduation **cum laude** or **magna cum laude** is possible from those colleges of Western Washington University which employ the A-F grading system. Fairhaven College of Interdisciplinary Studies, which employs a different grading system, may develop alternate ways to honor outstanding graduates.

The Graduate School does not confer graduation honors on graduate students although some graduate programs recognize meritorious graduate students.

To be eligible for **cum laude** or **magna cum laude** status upon graduation, the student must have earned at least 65 graded credits (under the A-F grading system) while in junior or senior standing. Only students who earn a first bachelor's degree are eligible for graduation honors.

**Magna cum laude** shall be awarded to each student whose honors grade average places him or her at the 97th percentile or higher among graduating seniors from their college during the previous academic year. **Cum laude** shall be awarded to each student whose honors grade average places him or her from the 92nd through 96th percentiles among graduating seniors from their college during the previous academic year.

To receive honors recognition at Western's commencement exercises, it is necessary for a student to have qualified for honors by the end of the quarter prior to graduation.

## Scholarship Standards

The following scholarship standards apply to each academic division of Western Washington University, except Fairhaven College. Students should note that transfer between academic divisions is restricted in cases of low scholarship.

Low- and high-scholarship standings are not changed as a result of the removal of incomplete (K) grades and late grades received in correspondence courses.

## Good Academic Standing

A student is in good academic standing if he or she has a cumulative grade point average that is not below 2.00.

## Low Scholarship

The University has set the standards described below to ensure that students who are earning low grades will examine their objectives carefully before continuing enrollment. In some cases, students will be dropped from the University. The standards are designed to ensure that a student will examine their objectives and seek assistance before grades deteriorate to the point that continued enrollment or admission to another college or university becomes impossible. In all cases involving low scholarship, students are encouraged to consult with the Academic Advising Center, their instructors, or major advisor.

The low scholarship categories below apply to all divisions of Western Washington University except Fairhaven College. (See the Fairhaven College section for that division's scholarship standards.) Students dropped from one college division may not transfer to another college division without reinstatement by the Scholastic Standing Committee. These standards also apply to students enrolled in self-supporting courses.

## Academic Warning

A warning is issued to a first-quarter freshman or a first-quarter transfer student (who has not previously attended Western) whose grade average is below 2.00 and to any continuing student whose quarterly grade average is below 2.00 but whose cumulative grade average is 2.00 or higher.

## Academic Probation

Any student except a first-quarter freshman or first-quarter transfer student (who has not previously attended Western) whose cumulative grade average falls below a 2.00 is placed on academic probation. A student who begins the quarter on probation must earn at least a quarterly grade average of 2.00 to avoid academic dismissal (see below).

## Continuing Probation

A student who begins a quarter on probation and, during that quarter, earns a grade average of 2.00 or higher without raising his or her cumulative grade average to at least 2.00 is placed on continuing probation. The student must then

## UNIVERSITY ACADEMIC POLICIES

improve his or her cumulative grade average to at least 2.00 or attain at least a 2.30 quarterly average during the next quarter of enrollment.

Students on probation or continuing probation who repeatedly withdraw or register for Pass/No Pass or Satisfactory/Unsatisfactory courses may have their registration privileges suspended by the Registrar.

### **Academic dismissal**

A student will be dropped from the University if he or she (a) begins a quarter on probation and earns a quarterly grade average below 2.00 and fails to raise his or her cumulative grade average to at least 2.00 or (b) begins a quarter on continuing probation and earns a quarterly grade average below 2.30 and fails to raise his or her cumulative grade average to at least a 2.00.

Under unusual circumstances involving consistent patterns of course withdrawal or course repeats, a student whose cumulative grade average is 2.00 or higher may be dismissed from the University. The provost may authorize dismissal in these unusual cases after reviewing records presented by the Registrar.

A student who has been dismissed for low scholarship should contact the Academic Advising Center in Old Main 380 for advising and the petition process. The student may enroll only in Summer Session, or independent and online courses through Western. Coursework through these programs does not guarantee future reinstatement as a degree candidate. See also the Reinstatement section below for more details

Removal from probation occurs at the end of a quarter during which a student has improved his or her **cumulative** grade average to 2.00 or higher.

### **Reinstatement**

Students who have been dismissed for low scholarship and want to return to Western should contact the Academic Advising Center in Old Main 380 and schedule an appointment to meet with an advisor. Students who succeed in gaining reinstatement have earned strong grades in coursework taken since dismissal, established strong study skills, overcome personal challenges that previously interfered with their studies and have clearly defined, realistic academic goals.

Students who have been dismissed for low scholarship can seek reinstatement (but not for the quarter immediately following the quarter of dismissal). For the petitioning process and additional information, go to [www.wvu.edu/advising/](http://www.wvu.edu/advising/). The Scholastic Standing

Committee has the responsibility of determining reinstatement.

### **Academic Honesty Policy**

Academic dishonesty is not tolerated at Western Washington University. A student commits an act of academic dishonesty when he or she participates in representing work of their own when in fact it is the work of another. A Western student charged with academic dishonesty may face significant repercussions such as failure of the assignment and course and possibly dismissal. All acts of academic dishonesty are on record in the Registrar's Office and the office of the Provost. Students do have the right to due process and may appeal a charge of academic dishonesty. For a full description of the academic honesty policy and procedures at Western, see Appendix D in the Appendices section of this catalog.

### **Academic Grievance Policy**

The text and procedures of Western's Academic Grievance Policy are contained in Appendix F in the Appendices section of this catalog.

### **Satisfactory Academic Progress for Financial Aid**

The text of Western's policy on Satisfactory Academic Progress for Financial Aid is contained in Appendix J in the Appendices section of this catalog.

### **Family Educational Rights and Privacy Act**

The Family Educational Rights and Privacy Act (FERPA), passed by Congress in 1974, protects the confidentiality of student records against disclosure to third parties and guarantees access to those records by the student. FERPA allows the university to release certain "directory information", which may include the student's name, local address and phone number, whether the student is enrolled, dates of attendance, degrees earned, and most recent previous institutions attended. However, Western Washington University is more restrictive, releasing to third parties only whether the student is currently enrolled, dates of attendance, and degrees awarded. For students who have requested a confidential block through the Registrar's Office, no information is disclosed, not even whether the student is enrolled.

When a student enrolls in a postsecondary institution, rights of access are transferred from

the parents to the student. Thus parents who wish to have access to their students' educational information must present a written, signed and recently dated consent from their student for each request.

Western students have 24 hour computer access to their own educational record via Web4U and therefore students and parents are encouraged to dialogue about appropriate and respectful sharing of educational information within the context of their relationship and recognition of the adult standing of the student by the university.

Individuals whose work requires access, such as university faculty and staff and government officials who work to improve instruction, also are allowed by FERPA to view student records.

For more complete information about FERPA and Western's Student Records Policy, see Appendix E in the Appendices section of this catalog.

## **Student Records Policy**

For the complete text of this policy, see Appendix E in the Appendices section of this catalog.

# University Graduation Requirements

## Student Responsibility for Completion of Requirements

Every effort is made by the University to notify students of degree requirements. However, it is the student's responsibility to become familiar with all requirements upon entry to the University.

## WWU Graduation Requirements for Bachelor's Degrees

### Effective Catalog

A student should expect to graduate according to the general requirements in the catalog current at the time of initial matriculation. However, if the student interrupts enrollment for more than two consecutive quarters (summer quarter not included), he or she shall meet the demands of the catalog in force at the time of readmission. Correspondence enrollment is defined as interrupted enrollment.

While the University reserves the right to change the regulations concerning admission and requirements for graduation, it shall be the policy of the University to give adequate notice prior to effecting any significant changes and to make reasonable adjustments in individual cases where there may be a hardship.

### Declaring a Major

Students should expect to meet the specific requirements for majors and minors in the catalog current at the time they declare the major and minor to the appropriate department. Early declaration of a major is essential to graduating in a timely manner. Soon after their arrival at Western, students should contact a departmental advisor to discuss the course of study leading to a major. Students are expected to meet with the advisor of the department of their choice for individualized assessment or visit the Academic Advising or Career Services centers regarding choice of a major by the time they complete 60 credits or during the first quarter of enrollment if 60 or more credits are being transferred to Western. Students are expected to apply to the department in which they wish to declare a major no later than the quarter following the quarter in which they reach their 90th credit. Students who fail to declare a major by the time they reach 105 credits will not be permitted to register.

Students must submit a new major declaration if they interrupt enrollment for more than one year or are dropped for low scholarship.

### Minors

Minors are available in most major disciplines but students are not required to complete a minor, unless a minor is required by the major. Requirements for each minor are listed in each department's section. To declare a minor, a student should contact the department. Although there is no limit on the number of minors a student may earn, it is not possible to minor in areas with more than a 50% overlap of credits applied to the minors. NOTE: Minors may only be earned by students who have completed a baccalaureate degree at Western Washington University.

### Common Requirements

The following requirements are common to all undergraduate divisions of Western Washington University. For requirements unique to a given University division, see sections concerning the College of Business and Economics, Fairhaven College of Interdisciplinary Studies, the College of Fine and Performing Arts, the College of Humanities and Social Sciences, Huxley College of the Environment, the College of Science and Engineering, University Interdisciplinary Programs, and Woodring College of Education.

- **Minimum of 180 quarter credits.** Western Washington University's baccalaureate degrees require a minimum of 180 credits. Some fields require a larger number of credits, and students who major in these fields should anticipate that they may require more than four years to complete their programs. Students majoring in these fields are encouraged to seek advisement early in their academic careers. Also, programs that are highly sequential necessitate careful planning, the lack of which may result in extended work beyond the minimum required. Western allows a maximum of 135 quarter (90 semester) credits to transfer from any combination of regionally accredited institutions, including no more than 105 quarter (70 semester) lower-division credits. Additional course work which exceeds this amount may be used to meet specific requirements but additional credits will not be allowed to count toward the 180 credit requirement for graduation.
- **Minimum of 45 credits earned through Western Washington University courses.** Credit by examination and



advanced placement credit are not included in this total.

- **At least 60 credits in upper-division study** (courses 300-level or above at the institution where the course was taken).
- **Complete a minimum of three upper-division writing proficiency points in approved upper-division writing proficiency courses at WWU** with a minimum grade of C-.
- **General University Requirements** - These general requirements must be satisfied by all students except those enrolled in Fairhaven College of Interdisciplinary Studies, where a separate core program is required.
- **Approved academic major**
  - At least 50 percent of the credits required in a student's major must be earned at Western Washington University
  - Students must declare a major before reaching 105 credits
- **Approved academic minor**
  - A minor is optional for students at Western Washington University unless required by an approved academic major
  - At least 50 percent of the credits required for a minor must be earned at Western Washington University
- **Professional education sequence, if required by the major**
- **A grade of C- or better in a student's major or minor**, supporting courses for majors and minors, ENG 101, and courses taken to fulfill the upper-division writing proficiency requirement.
- **A grade of C (2.0) or better is required for professional education courses** required for teacher education programs and courses required for state teaching endorsements.
- **Scholarship meeting minimums** prescribed by the University divisions and academic departments, including a cumulative WWU GPA of at least 2.00 (or higher, as required by individual departments).
- **Final quarter in residence.** Must be registered for at least one Western course in the quarter in which degree is to be awarded.
- **Submit an application for the degree** following published deadlines. The degree is not granted without formal application.

## Curriculum Advising and Program Planning (CAPP) - Online Degree Evaluation

Curriculum, Advising, and Program Planning (CAPP) Degree Evaluation is an advising tool available to both students and advisors that evaluates course work against degree requirements. CAPP produces a report reflecting academic progress toward completion of an undergraduate or graduate degree in a student's declared or proposed major. The CAPP degree evaluation report shows how Western Washington University courses, transfer courses, and courses in progress apply toward degree requirements. You can initiate a degree evaluation, view results, and print evaluation reports via Web4U.

Visit the Online Degree Evaluation website for additional information.

## Extension Program Time Limits

All graduation requirements for an extension program must be completed within five years of the initial quarter of registration. Students who have not completed their program after four years of study are required to file a plan for completion of the degree within the five-year limit. Otherwise it is understood that the student has decided to withdraw from the program.

## Procedures for Applying for a Bachelor's Degree

Degrees are not automatically awarded when requirements are completed. It is the responsibility of the student to make application in the Registrar's Office. Students must apply for a baccalaureate degree no later than the last day of classes two quarters prior to the final quarter. Complete instructions and deadlines are available on the Registrar's Office website.

## Procedures for Applying for a Residency Teacher Certificate

Teaching certificates are not automatically issued at program completion. It is the responsibility of the student to apply for the Residency Teacher Certificate through the Woodring College of Education Certification Office by the due date approximately two quarters before the start of full-time student teaching internship. Upon verification that certification requirements have been met, recommendation is made to the state Office of Superintendent of Public Instruction for issuance of the Residency Teacher Certificate.

# UNIVERSITY GRADUATION REQUIREMENTS

Complete application instructions and deadlines are available at [wce.wvu.edu/cert/teacher-certification](http://wce.wvu.edu/cert/teacher-certification) or Certification Office, Woodring College of Education Student Services, Miller Hall 150, and through applicable extension program offices.

## Commencement

Formal commencement exercises for degree candidates are held each quarter on the Saturday following finals week. Commencement information and signup forms are available by the third week of the quarter on the Registrar's Office website. To be eligible for commencement, all candidates must apply for their degree by the appropriate deadline. University policy requires bachelor's degree candidates to be enrolled in their final quarter's requirements and master's candidates to have completed all requirements in order to participate in commencement.

## Baccalaureate Degrees with Two Majors

Any undergraduate student at Western Washington University may attempt to earn a bachelor's degree with two majors. While there is no requirement that such a degree program include more than 180 credits, it may be impossible to complete within this minimum. The student's application for such a degree must indicate both majors and be approved by both departments or academic units involved. The majors involved must be distinct and may not be based on more than a 50% overlap of credits applied to both majors. A general studies or multidisciplinary studies major cannot be earned concurrently with or subsequent to another major.

After earning a bachelor's degree, a student may complete an additional major without earning a second bachelor's degree. The student must submit a major declaration card and an application for an additional major to the Registrar's Office.

Students with two majors that would result in the same type of degree (for example, a bachelor of arts in English and a bachelor of arts in business) will receive one degree and one diploma. Since the diploma indicates the college awarding the degree, students must choose the college they prefer. In this example, the student must choose between a bachelor of arts from the College of Humanities and Social Sciences or a bachelor of arts from the College of Business and Economics. Majors are not printed on the diploma but are listed on the transcript once the student graduates.

## More than One Baccalaureate Degree

A student may earn from Western only one of each type of degree offered (BA, BS, BAE, BFA, BMus, BSN).

## Two Baccalaureate Degrees Concurrently

Two distinct bachelor's degrees associated with different majors may be earned at Western simultaneously. The student must follow the admission and declaration process for each degree program and satisfy all requirements of each degree program. The majors involved may not be based on more than a 50% overlap of credits applied to both majors.

## Second Baccalaureate Degree from WWU

A student who has already earned a baccalaureate degree from Western Washington University may apply for readmission to earn a different type of undergraduate degree associated with a different major. Such a student must:

- Submit a major declaration card
- Meet scholarship minimums prescribed by the University divisions and academic departments, including a cumulative WWU GPA of at least 2.00 (or higher, as required by individual departments)
- Earn at least 50% of the credits for the major at Western Washington University
- A grade of C- or better must be earned in all major courses.
- Earn at least 45 WWU academic credits beyond the number earned when the first degree was granted. \*\* Credit by examination and advanced placement credit are not included in this total.
- Be registered for at least one Western course in the quarter in which the degree is to be awarded.
- Satisfy all requirements of the second degree program

\*\*Exception: The BFA in art degree or the BFA in design degree may be awarded to a student who has earned fewer than 45 additional credits since completing a BA degree.

## Post-Baccalaureate Degree Requirements for Transfer Students

- **GUR**  
Holders of a bachelor's degree from a United States institution accredited by the

Regional Associations of Schools and Colleges will have fulfilled all General University Requirements. Holders of foreign degrees will have the degree evaluated for GUR on a course-by-course basis.

- **Major**  
At least 50% of the credits earned for a major must be earned at Western Washington University  
A grade of C- or better must be earned in all major courses. Note: A post-baccalaureate transfer student cannot earn a major at Western that is associated with any previously-earned degree.
- **Minor**  
A minor is not required for the degree unless it is required by the major. At least 50% of the credits earned for a minor must be earned at Western Washington University.  
A grade of C- or better must be earned in all minor courses. Note: A post-baccalaureate transfer student cannot earn a minor at Western that is associated with any previously-earned degree. A minor cannot be posted to the official transcript unless a bachelor's degree is earned from Western Washington University.
- **Writing Proficiency**  
Holders of a bachelor's degree from a United States institution accredited by the Regional Associations of Schools and Colleges will have fulfilled the writing proficiency requirement. Holders of foreign degrees must complete a minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-.
- **GPA**  
Scholarship meeting minimums prescribed by the University divisions and academic departments, including a cumulative WWU GPA of at least 2.00 (or higher, as required by individual departments).
- **Minimum of 45 credits earned through Western Washington University courses.** Credit by examination and advanced placement credit are not included in this total.
- **Final quarter in residence.** Must be registered for at least one Western course in the quarter in which degree is to be awarded.

## Baccalaureate Degree After Graduate Studies at WWU

A student may not earn a baccalaureate degree from Western Washington University while enrolled in its Graduate School. A student may earn a

baccalaureate degree after the completion of the master's degree program provided: 1) all requirements listed under "Post-Baccalaureate Degree Requirements for Transfer Students" are met and 2) that 45 credits are earned at Western subsequent to the previous bachelor's degree and exclusive of those credits that are a part of the master's program.

## Baccalaureate Degree and Teacher Certification

The prospective teacher may earn the Bachelor of Arts in Education degree, completing one or more of the appropriate teaching majors offered within the various schools, colleges and departments of Western. Three majors delivered through the Woodring College of Education offer non-certification options for students who are preparing to work in community agencies rather than public schools. The student (usually with plans to teach at the secondary school level) who wishes to complete an appropriate Bachelor of Arts or Bachelor of Science degree program may also earn teaching credentials without earning the BAE degree. Some programs allow requirements for teacher certification to be completed at the same time the BA or BS degree is earned. Such students must be admitted officially to the professional education program of the Woodring College of Education and complete the required professional sequence.

## Writing Requirements at Western Washington University

Western Washington University believes that development of writing proficiency should be pursued systematically throughout the course of study. To that end Western has established a program of writing courses and support services beginning in the freshman year and extending to upper-division writing proficiency courses offered throughout the University.

### GUR Writing Requirement

- Block A of the GUR communications requirement: to be completed, with a grade of C- or better, prior to the accumulation of 45 credits; ENG 101, Writing and Critical Inquiry, (5), (waived for students demonstrating high English competency on CEEB Advanced Placement English exams with a score of 4 or 5).
- Block B or C of the GUR communications requirement: to be completed prior to accumulation of 135 credits; see the GUR section for details.

# UNIVERSITY GRADUATION REQUIREMENTS

## Upper-division Writing Proficiency Requirement

- Upper-division writing proficiency requirement: complete a minimum of three writing proficiency points in designated upper-division Writing Proficiency courses at WWU with a minimum grade of C-. Students must complete Block A of the Communication GUR requirement before enrolling in a Writing Proficiency course.

All Western Writing Proficiency courses should follow these University-wide guidelines:

- students have opportunities to write multiple drafts of assigned papers

- students receive suggestions for revision, and
- instructors assign course grades based on assigned writings according to the writing proficiency points table

Upper-division writing proficiency courses emphasize research and writing. In writing proficiency courses, students learn the writing style and conventions of their disciplines, as well as the techniques for integrating evidence into scholarly papers. Writing proficiency courses are listed in the online Timetable of Classes.

Students unable to enroll in designated WP courses may be able to satisfy the requirement, with faculty endorsement, by submitting an "Alternative Writing Proficiency Course Agreement" through the Writing Instruction Support Program.

Writing Proficiency Points Fulfilling the Upper-division Writing Proficiency Requirements (Minimum 3 points required)		
	Credits of course	% of Grade Based on Writing Assignments
WP1 (1 pt)	1 Credit	75%
	2 Credits	50%
	3 Credits	25%
	4 Credits	20% (18.75%)
	5 Credits	15%
WP2 (2 pts)	2 Credits	75%
	3 Credits	50%
	4 Credits	40% (37.5%)
	5 Credits	30%
WP3 (3 pts)	3 Credits	75%
	4 Credits	55%
	5 Credits	45%

## General University Requirements (GURs) at Western Washington University

The General University Requirements (GURs) embody Western's belief that liberal education - education in breadth - is as important for informed and effective participation in contemporary life as specialized education. Western believes that liberal education enables people to lead fuller and more interesting lives, to perceive and to understand more of the world around and within themselves, and to participate more intelligently, sensitively and deliberately in shaping that world. This belief reflects a long tradition in American higher education. In this tradition, the bachelor's degree includes specialized study, the major, together with study over a range of human inquiry, expression and accomplishment. Broadly, the liberal education

component of a bachelor's degree deals with issues of truth and falsity, with expressions of what is possible for humans to do and be, with things that bear on choices that we make about what in life we consider important. This broader study helps people gain perspective on who they are and what they do in the world.

The program is designed to develop academic competencies and perspectives that give students the ability to:

- Analyze and communicate ideas effectively in oral, written, and visual forms
- Analyze and interpret information from varied sources, including print and visual media
- Use quantitative and scientific reasoning to frame and solve problems
- Identify and analyze complex problems
- Apply tools of technology, with an understanding of their uses and limitations

- Explore, imagine and create
- Recognize the rights, responsibilities, and privileges of participating in, and contributing as a citizen in, a diverse society
- Understand and evaluate assumptions, values, and beliefs in context of diverse local, national and global communities
- Work collaboratively and manage projects to effective completion
- Reflect on one's own work and on the ethical dimensions of academic pursuits
- Understand and assess the impacts of interactions among the individual, society, and the environment

The General University Requirements apply to all students in the College of Humanities and Social Sciences, the College of Business and Economics, the College of Science and Engineering, the College of Fine and Performing Arts, Woodring College of Education, and Huxley College of the Environment. Students enrolled in Fairhaven College of Interdisciplinary Studies, see the Fairhaven College section of the University catalog for requirements.

## Exceptions

- Students transferring to Western with a Washington community college Direct Transfer Agreement Associate Degree.
- Students transferring to Western from another Washington state public baccalaureate institution whose General University Requirements were completed at the sending institution, provided the sending institution so certifies.

## Four-Course Maximum

A maximum of four courses from any one department may be applied to the combination of Humanities; Social Sciences; and Comparative Gender and Multicultural Studies sections of the General University Requirements. (Art and Art History are considered to be one department, as are all foreign languages.)

## Grades in GUR Courses

Courses which are to apply to General University Requirements must be taken on an "A" through "F" grading scale, except for courses designated S/U grading. They may not be taken with pass/no pass grading. Except for ENG 101, which requires a C- or better, the minimum passing grade for a GUR course is D-.

## Attributes

Please note the use of GUR attributes in the online Timetable of Classes. Courses which qualify as General University Requirements are designated by the appropriate attribute (ACOM, BCOM, CCOM, QSR, HUM, SSC, ACGM, BCGM, LSCI, or SCI).

## List of General University Requirements

The detailed document containing the full General University Requirements 2016-17 academic year is available in the PDF format.

## Transfer Credit to Satisfy GUR

Transfer students from Washington state community colleges may satisfy the GUR by taking courses listed on the transfer admission section of Western's website.

Approved associate degrees from community colleges in Washington State may fulfill all General University Requirements. Students at community colleges who wish to satisfy the General University Requirements by earning an associate degree should check carefully with advisors, as only certain approved degrees will apply.

To meet the GUR, an approved associate degree is normally earned prior to initial enrollment at Western (on or off campus) as a transfer student. If any student wishes to complete such a degree in order to have it satisfy the GUR at Western, it must be earned by the time the student has 1) completed 45 credits at WWU, or 2) one calendar year has passed from initial enrollment at WWU, whichever comes later. A student seeking an exception to the 45 credit limit or one calendar year timeline must petition the Registrar's Office for approval.

Western allows a maximum of 135 quarter (90 semester) credits to transfer from any combination of regionally accredited institutions, including no more than 105 quarter (70 semester) lower-division credits. Additional course work which exceeds this amount may be used to meet specific requirements, but additional credits will not be allowed to count toward the 180 credit requirement for graduation.

Completion of General University Requirements will be granted to transfer students from another Washington state public baccalaureate institution whose General University Requirements were completed and certified by the sending institution.

# UNIVERSITY GRADUATION REQUIREMENTS

Students pursuing a second baccalaureate degree at Western after completing a bachelor's degree at another US regionally accredited institution will have fulfilled all General University Requirements.

**NOTE:** Certain programs may have admission standards which require the completion of the GUR prior to beginning study. Consult program advisors for details.

All degree-seeking students, on or off campus, must complete all other common requirements for baccalaureate degrees.

## Scheduling of GUR Courses

The first year's schedule ordinarily should investigate potential majors, explore subjects in which a student has little or no experience, sample the main fields represented in the GUR (humanities, social sciences, natural sciences), and meet basic requirements in writing and mathematics. Students who are interested in a particular major should begin the basic work of that major. Concurrently, they should use the GUR and other courses to investigate areas of potential interest besides that major. Students who are unsure about what their major will be should explore fields in which they are, or may become, interested, by taking introductory courses in those fields. Some GUR courses will serve this purpose. It is perfectly permissible, in this exploration, to take non-GUR courses also.

This strategy may be pursued in the sophomore year. By the third quarter of the sophomore year (more or less), students who take this approach should be ready to proceed in one of several majors, and will have also laid the basis for a liberal arts and science education.

It is strongly recommended that students continue the GUR into their junior and senior years, taking courses from the GUR list in which they have become interested, and also taking non-GUR electives. By doing this, students benefit from the interplay of "liberal" and "specialized" components of their education throughout their time at Western. A few majors require completion of the GUR before entering the major.

The student should study carefully the requirements of his or her major and the course descriptions before planning courses to satisfy the General University Requirements, as some required courses in the major may also apply to General University Requirements. If questions arise, the student should confer with a degree evaluator in the Registrar's Office, OM 230.

# GENERAL UNIVERSITY REQUIREMENTS

The General University Requirements (GURs) embody Western's belief that liberal education--education in breadth--is as important for informed and effective participation in contemporary life as specialized education. Western believes that liberal education enables people to lead fuller and more interesting lives, to perceive and to understand more of the world around and within themselves, and to participate more intelligently, sensitively and deliberately in shaping that world. This belief reflects a long tradition in American higher education. In this tradition, the bachelor's degree includes specialized study, the major, together with study over a range of human inquiry, expression and accomplishment. Broadly, the liberal education component of a bachelor's degree deals with issues of truth and falsity, with expressions of what is possible for humans to do and be, with things that bear on choices that we make about what in life we consider important. This broader study helps people gain perspective on who they are and what they do in the world.

The General University Requirements apply to all students in the College of Humanities and Social Sciences, the College of Business and Economics, the College of Science and Engineering, the College of Fine and Performing Arts, Woodring College of Education, and Huxley College of the Environment. Students enrolled in Fairhaven College of Interdisciplinary Studies, see the Fairhaven College section of the university catalog for requirements.

## EXCEPTIONS:

- 1) Students transferring to Western with a Washington community college DTA (Direct Transfer Agreement) Associate Degree.
- 2) Students transferring to Western from another Washington state public baccalaureate institution whose General University Requirements were complete at the sending institution, provided the sending institution so certifies.

## FOUR-COURSE MAXIMUM

A maximum of four courses from any one department may be applied to the combination of Humanities, Social Sciences, and Comparative, Gender and Multicultural Studies sections of the General University Requirements. (*Art and Art History are considered one department as are all foreign languages.*)

## GRADES IN GUR COURSES

Courses which are to apply to General University Requirements must be taken on an A through F grading scale, except for courses designated as S/U grading. They may not be taken with Pass/No Pass grading. Except for Eng 101, which requires a C- or better, the minimum passing grade for GUR courses is D- (Math courses must be passed with a grade of C- or higher if used as a prerequisite to another course).

## ATTRIBUTES

Please note the use of GUR attributes in the online Timetable. Courses which qualify as General University Requirements are designated by the appropriate attribute (ACOM, BCOM, CCOM, QSR, HUM, SSC, ACGM, BCGM, LSCI, or SCI).

## COMMUNICATION

The Communication requirement provides an opportunity to develop the literacies and skills needed to convey ideas effectively in a variety of contexts. This area includes courses in writing, speaking and information technology literacy, and aims to foster an ability to reason critically by analyzing situations and adapting messages to particular audiences in particular contexts. The ability to express ideas clearly, creatively, and correctly is fundamental to a quality undergraduate education, and essential for active participation in a democracy.

**Complete Block A and one course from either Block B or Block C.** Block A and Block C are writing courses.

**Block A – (ACOM) ENGLISH (ENG) 101,** Writing and Critical Inquiry (5). This course must be completed with a grade of C- or better. Requirement will be waived for students demonstrating high English competency on Advanced Placement (CEEB English score of 4).

### Block B – (BCOM)

#### ❖COMMUNICATION STUDIES (COMM)

- 101–Fundamentals of Speech (4)
- 224–Small Group Processes (4)
- 235–Exposition and Argumentation (4)

#### ❖COMPUTER SCIENCE (CSCI)

- 102–Computer-Mediated Communications (3)

#### ❖EDUCATION (EDUC)

- 309–Storytelling: Oral Narrative in History, Culture, and Society (4)

#### ❖ENGLISH (ENG)

- 202–Writing About Literature (5)

#### ❖JOURNALISM (JOUR)

- 207–Newsriting (4)

#### ❖MODERN AND CLASSICAL LANGUAGES

##### Arabic (ARAB)

- 103–Elementary Arabic (5)
- 201–Intermediate Arabic (5)

##### Chinese (CHIN)

- 103–First-Year Chinese (5)
- 201–Second-Year Chinese (5)

##### French (FREN)

- 103–Elementary French (5)
- 104–Review of Elementary French (5)
- 201–Intermediate French (5)

##### German (GERM)

- 103–Elementary German: Language, Communication & Culture (5)
- 104–Review of Elementary German: Language, Communication & Culture (5)

- 201–Intermediate German: Language, Communication & Culture (4)

##### Greek (GREK)

- 103–Elementary Greek (5)
- 201–Intermediate Greek I (4)
- 202–Intermediate Greek II (4)

##### Japanese (JAPN)

- 103–First-Year Japanese (5)
- 104–Review of Elementary Japanese (5)
- 201–Second-Year Japanese (4)

#### ❖MODERN AND CLASSICAL LANGUAGES (continued)

##### Latin (LAT)

- 103–Elementary Latin (5)
- 201–Intermediate Latin (5)

##### Russian (RUSS)

- 120–Elementary Russian 2 (5)
- 201–Intermediate Russian I (5)

##### Spanish (SPAN)

- 103–Elementary Spanish (5)
- 104–Review of Elementary Spanish (5)
- 201–Intermediate Spanish (5)

#### ❖NURSING (NURS)

- 301–Information Literacy to Support Academic Discourse (5)

#### ❖PHILOSOPHY (PHIL)

- 107–Critical Thinking (3)

### Block C – (CCOM):

#### ❖DANCE (DNC)

- 231–Introduction to Dance in Western Cultures (3)

#### ❖ENGLISH (ENG)

- 201–Writing in Humanities (5)

#### ❖LIBERAL STUDIES (LBRL)

- 340–Sufism: The Islamic Mystical Tradition (5)

#### ❖LIBRARY (LIBR)

- 201–Introduction to Research Strategies (4)

#### ❖WOMEN, GENDER AND SEXUALITY STUDIES (WGSS)

- 212–Feminist Theory and Expression (4)

#### OR—Complete Block A and one of the following sets:

#### ❖HONORS (HNRS)

- 103, 104, 105 (4 ea) or
- 103, 104, 106 (4 ea)

## QUANTITATIVE AND SYMBOLIC REASONING (QSR)

Quantitative and symbolic reasoning is the ability to distinguish situations in which numerical or symbolic information is relevant, and to decide how to analyze and present numerical or symbolic information to reach valid conclusions. Specifically, a symbolic reasoner has the ability to understand the logic and validity of an argument through analyzing the relationships between/among components, connections and contingencies. An accomplished quantitative and symbolic reasoner has a sense of the relative size of numbers, is able to read and present graphs and charts, can decide whether an argument involving data is valid, understands the language of variable and relations, and understands how to model situations in order to make decisions and predictions.

Initial enrollment in beginning mathematics courses is based upon the results of the Math Placement Tests (*tests that show a student is ready to begin the study of a subject*). These tests must be taken prior to registration. Refer to the Mathematics Department for more information on academic placement and advanced standing.

All students must complete the QSR Requirement by accumulation of 90 credits.

**Complete one of the following options:**

**Option 1:****MATH 107**—Mathematical Reasoning and Its Applications (4) and one course from:

- ❖ **ANTHROPOLOGY (ANTH)**  
335—Quantitative Methods in Anthropology (5)
- ❖ **COMPUTER SCIENCE (CSCI)**  
103—Introduction to Computer Game Development (4)  
172—Introduction to Robotics (4)
- ❖ **ENVIRONMENTAL STUDIES (ENVS)**  
201—Understanding Environmental Data and Information (3)  
221—Geographic Information Science Survey (3)
- ❖ **FINANCE (FIN)**  
216—Personal Investing (4)
- ❖ **MANAGEMENT (MGMT)**  
201—Introduction to Business (4)
- ❖ **MATH (MATH)**  
112—Functions and Algebraic Methods (5)
- ❖ **PHILOSOPHY (PHIL)**  
102—Introduction to Logic (3)
- ❖ **SOCIOLOGY (SOC)**  
304—Statistics for Sociology (5)

**Option 2:****MATH 112**—Functions and Algebraic Methods (5) and one course from:

- ❖ **ANTHROPOLOGY (ANTH)**  
335—Quantitative Methods in Anthropology (5)
- ❖ **COMPUTER SCIENCE (CSCI)**  
103—Introduction to Computer Game Development (4)  
172—Introduction to Robotics (4)
- ❖ **ENVIRONMENTAL STUDIES (ENVS)**  
201—Understanding Environmental Data and Information (3)  
221—Geographic Information Science Survey (3)
- ❖ **FINANCE (FIN)**  
216—Personal Investing (4)
- ❖ **MANAGEMENT (MGMT)**  
201—Introduction to Business (4)
- ❖ **MATH (MATH)**  
107—Mathematical Reasoning and Its Applications (4)
- ❖ **PHILOSOPHY (PHIL)**  
102—Introduction to Logic (3)
- ❖ **SOCIOLOGY (SOC)**  
304—Statistics for Sociology (5)

**Option 3:**

One transfer course with an MPAR attribute and one course from:

- ❖ **ANTHROPOLOGY (ANTH)**  
335—Quantitative Methods in Anthropology (5)
- ❖ **COMPUTER SCIENCE (CSCI)**  
103—Introduction to Computer Game Development (4)  
172—Introduction to Robotics (4)
- ❖ **ENVIRONMENTAL STUDIES (ENVS)**  
201—Understanding Environmental Data and Information (3)  
221—Geographic Information Science Survey (3)
- ❖ **FINANCE (FIN)**  
216—Personal Investing (4)
- ❖ **MANAGEMENT (MGMT)**  
201—Introduction to Business (4)
- ❖ **MATH (MATH)**  
112—Functions and Algebraic Methods (5)
- ❖ **PHILOSOPHY (PHIL)**  
102—Introduction to Logic (3)
- ❖ **SOCIOLOGY (SOC)**  
304—Statistics for Sociology (5)

**Option 4:**

One course from:

- ❖ **MATH (MATH)**  
114—Precalculus I (5)  
115—Precalculus II (5)  
118—Accelerated Precalculus (5)  
124—Calculus and Analytic Geometry I (5) (*Only one of Math 124 and Math 134 may be taken for credit*)  
134—Calculus I Honors (5) (*Only one of Math 134 and Math 124 may be taken for credit*)  
156—Algebra With Applications to Business and Economics (4)  
157—Calculus With Applications to Business and Economics (4)  
160—Mathematics and Art (4)  
240—Introduction to Statistics (4)
- ❖ **COMPUTER SCIENCE (CSCI)**  
138—Programming Fundamentals in Visual Basic (4)  
140—Programming Fundamentals in C++ (4)  
141—Computer Programming I (4)  
145—Computer Programming and Linear Data Structures (4)

**Option 5:**

One transfer course with an MSAT attribute

**Option 6:****BAE-Elementary Education students only:**

- ❖ **MATH (MATH)**  
381—Teaching K-8 Mathematics I (4) and  
382—Teaching K-8 Mathematics II (4)

**HUMANITIES (HUM)**

The Humanities requirement provides an introduction to the subject matter, methods of inquiry and forms of expression of academic fields that treat language, literature, fine arts, history, philosophy and religion in the Western cultural tradition. The humanities study principal themes, issues and images concerning human beings and their place in the universe, as these have been shaped and expressed since ancient times, in thought, imagination and action.

Complete one of the following options:

**Option 1: Complete 3 courses from at least two departments; 12 credits minimum**

- ❖ **ART (ART)**  
109—Visual Dialogue (3)
- ❖ **ART HISTORY (A/HI)**  
210—History of Architecture: Prehistory to Modernity (3)  
220—Visual Culture in the Ancient World (3)  
221—Visual Culture in Medieval Europe (3)  
230—Visual Culture in 15<sup>th</sup> and 16<sup>th</sup> Century Europe (3)  
231—Visual Culture in 17<sup>th</sup> and 18<sup>th</sup> Century Europe (3)  
240—Visual Culture in Western Europe in the 19<sup>th</sup> Century (3)  
241—Visual Culture in Western Europe and America in the 20<sup>th</sup> Century (3)
- ❖ **CLASSICAL STUDIES (CLST)**  
117—The Ancient Legacy (5)  
260—Masterworks of Ancient Greek Literature (4)  
270—Literature of Rome and Her Empire (4)  
350—Greek Mythology (4)
- ❖ **COMMUNICATION STUDIES (COMM)**  
220—Communication Theory (5)  
230—Rhetoric and Social Change (5)
- ❖ **DANCE (DNC)**  
108—Introduction to the Fine Arts: the Classics (3)  
230—Making Movement Art (3)
- ❖ **DESIGN (DSGN)**  
111—Design View (3)  
211—Foundations of Visual Communication (3)
- ❖ **ENGLISH (ENG)**  
214—Shakespeare (5)  
215—British Literature (5)  
216—American Literature (5)  
238—Society Through Its Literature (5) (*May be taken only once for GUR credit*)  
270—Language and Society (5)  
282—Global Literatures (5)  
332—Literature and Philosophy (5)  
339—Mythology and Literature (5)
- ❖ **FAIRHAVEN (FAIR)**  
334S—Holocaust Film (5) (*Also taught as INTL 338*)
- ❖ **HISTORY (HIST)**  
103—Introduction to American Civilization: American History to 1865 (5)  
104—Introduction to American Civilization: American History Since 1865 (5)  
111—Introduction to Western Civilization: Prehistory to 476 (5)  
112—Introduction to Western Civilization: 476-1713 (5)  
113—Introduction to Western Civilization: 1713 to Present (5)  
121—World History to 500 (5)  
123—World History, 1500 to the Present (5)  
131—Going to College in America (5)  
151—Communities of the Ancient World (5)  
152—Being Human (5)  
277—Canada: A Historical Survey (5)  
314—The American and European Enlightenment (5)
- ❖ **HONORS (HNRS)**  
103—Major Cultural Traditions I (4)  
104—Major Cultural Traditions II (4)  
201—Colloquium in Philosophy (4)  
205—Colloquium in History (4)
- ❖ **INTERNATIONAL STUDIES (INTL)**  
338—Holocaust Film (5) (*Also taught as FAIR 334S*)
- ❖ **JOURNALISM (JOUR)**  
340—History of U.S. Journalism (4)
- ❖ **LIBERAL STUDIES (LBRL)**  
110—Confession and Self-Promotion: Autobiography from Augustine to the Blogosphere (5)  
121—The Western Tradition I: The Ancient World (5)  
122—The Western Tradition II: Medieval and Early Modern Europe (5)  
123—The Western Tradition III: The Modern World (5)



- ◆ **LIBERAL STUDIES (LBRL)** *(continued)*
  - 232–Myth and Folklore (5)
  - 243–Art and Ideas (5)
  - 265–Science and Religion in American Culture (5)
  - 321–Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age (5)
  - 323–The Romantic Paradox: Love, Life and Death (5)
  - 325–Surveillance, Voyeurism and the Culture of Suspicion (5)
  - 333–Religion in America (5)
  - 336–New Testament and Early Christianity (5)

- ◆ **MODERN AND CLASSICAL LANGUAGES**

- ◆ **French (FREN)**

- 202–Intermediate French (5)
- 203–Intermediate French (5)
- 301–Grammar Review (4)
- 302–Written Exposition (3)

- ◆ **German (GERM)**

- 202–Intermediate German: Language, Communication & Culture (4)
- 203–Intermediate German: Language, Communication & Culture (4)
- 301–High Intermediate German: Contexts & Culture (4)
- 302–Advanced German: Contexts & Cultures I (4)

- ◆ **Latin (LAT)**

- 202–Intermediate Latin (5)
- 203–Intermediate Latin (5)

- ◆ **Portuguese (PORT)**

- 304–Portuguese for Spanish Speakers (5)

- ◆ **Russian (RUSS)**

- 202–Intermediate Russian II (5)
- 203–Intermediate Russian III (5)
- 301–Third-Year Composition (3)
- 302–Third-Year Composition (3)

- ◆ **Spanish (SPAN)**

- 202–Intermediate Spanish (5)
- 203–Intermediate Spanish (5)
- 301–Grammar Review and Composition (4)
- 302–Grammar Review and Composition (4)

- ◆ **MUSIC (MUS)**

- 104–The Art of Listening to Music (3)
- 105–Survey of Popular and Rock Music (3)
- 106–Introduction to Hip-Hop (3)
- 107–Introduction to Country Music (3)
- 108–Survey of Video Game Music (3)
- 202–Jazz: Genesis and Evolution (3)

- ◆ **NURSING (NURS)**

- 305–Social Justice and Healthcare (5)

- ◆ **PHILOSOPHY (PHIL)**

- 112–Introduction to Philosophy: Moral Issues (3)
- 113–Introduction to Philosophy: Philosophy of Religion (3)
- 114–Introduction to Philosophy: Knowledge and Reality (3)
- 115–Environmental Ethics (3)
- 340–Philosophy of Science (3)
- 350–Political Philosophy (3) *(Only one of Philosophy 350 and Political Science 261 may be taken for GUR credit)*
- 355–Aesthetics and the Philosophy of Art (3)
- 360–Society, Law and Morality (3)

- ◆ **POLITICAL SCIENCE (PLSC)**

- 261–Introduction to Political Theory (5) *(Only one of Political Science 261 and Philosophy 350 may be taken for GUR credit)*

- ◆ **RECREATION (RECR)**

- 301–Work and Leisure Through the Ages (4)

- ◆ **THEATRE ARTS (THTR)**

- 101–Introduction to the Art of the Theatre (3)
- 201–Introduction to the Cinema (3)
- 202–Film Genre (3) *(May be taken only once for GUR credit)*
- 380–Theatre History I (4)
- 381–Theatre History II (4)
- 382–Theatre History III (4)

**Option 2: Complete one of the following sets**

- ◆ **LIBERAL STUDIES (LBRL)** 121, 122, 123 (5 ea)
- ◆ **HISTORY (HIST)** 111, 112, 113 (5 ea)

**SOCIAL SCIENCES (SSC)**

The Social Sciences requirement provides an introduction to the content, methods and applications of academic fields that treat psychological, social, political and economic behavior, development and variation of human culture, and uses of geographical space. Though differing in subject and approach, the social sciences insist in common on empirical investigation and seek to discover coherent patterns in human activity.

**Complete 3 courses from at least two departments; 12 credits minimum**

- ◆ **ANTHROPOLOGY (ANTH)**

- 102–Introduction to Human Origins (5)
- 201–Introduction to Cultural Anthropology (5) *(Only one of Anthropology 201 and Honors 203 may be taken for credit)*

- ◆ **ANTHROPOLOGY (ANTH)** *(continued)*

- 210–Introduction to Archaeology (5)
- 247–Introduction to Linguistic Anthropology (5)

- ◆ **CANADIAN-AMERICAN STUDIES (C/AM)**

- 200–Introduction to Canadian Studies (5)

- ◆ **COMMUNICATION SCIENCES AND DISORDERS (CSD)**

- 210–Communication and the Mind (3)

- ◆ **COMMUNICATION STUDIES (COMM)**

- 228–Organizational Communication (5)
- 240–Media Studies (5)

- ◆ **ECONOMICS (ECON)**

- 101–Markets and Society (4)
- 206–Introduction to Microeconomics (4) *(Only one of Honors 209 and Economics 206 may be taken for credit)*
- 207–Introduction to Macroeconomics (4)

- ◆ **EDUCATION (EDUC)**

- 109–Scholarship of Teaching and Learning (4)
- 115–Introduction to Contemporary Education Issues (4)
- 280 – Climate Change, Social Justice and Public Education (4)

- ◆ **ENVIRONMENTAL STUDIES (ENVS)**

- 110–Ecogastronomy: The Art and Science of Food (2)
- 111–Ecogastronomy: Topics/Discussion (1)
- 202–Introduction to Environmental Studies and Sustainability (3)
- 204–Human Geography (4)
- 240–Geography and World Affairs (2)
- 342–Geography of the World Economy (4)

- ◆ **FAIRHAVEN (FAIR)**

- 311B–The American Legal System (5). *(Only one of FAIR 311B, MGMT 271, PLSC 311 may be taken for GUR credit)*
- 312F–Globalizations since 1870 (5) *(Also taught as INTL 312)*

- ◆ **FINANCE (FIN)**

- 215–Personal Finance (4)

- ◆ **HEALTH EDUCATION (HLED)**

- 201–Perspectives of Human Lifestyle and Wellness (3)
- 210–Introduction to Public Health (4)

- ◆ **HONORS (HNRS)**

- 203–Colloquium in Anthropology (4) *(Only one of Honors 203 and Anthropology 201 may be taken for credit)*
- 204–Colloquium in Psychology (4) *(Only one of Honors 204 and Psychology 101 may be taken for credit)*
- 206–Colloquium in Political Science (4) *(Only one of Honors 206 and Political Science 101 may be taken for credit)*
- 209–Colloquium in Microeconomics (4) *(Only one of Honors 209 and Economics 206 may be taken for credit)*
- 221–Interdisciplinary Colloquium in Science and Social Science (4)
- 252–Colloquium in Sociology (4)

- ◆ **INTERNATIONAL STUDIES (INTL)**

- 312–Globalizations Since 1870 (5) *(Also taught as FAIR 312F)*

- ◆ **JOURNALISM (JOUR)**

- 190–Introduction to Mass Media (5)

- ◆ **LEADERSHIP STUDIES (LDST)**

- 100–Leading Responsibly (2)
- 101–Introduction to Leadership Studies (5)

- ◆ **LINGUISTICS (LING)**

- 201–Introduction to Language and Linguistics (5)
- 204–Sociolinguistics (4)

- ◆ **MANAGEMENT (MGMT)**

- 271–Law and the Business Environment (4) *(Only one of PLSC 311 FAIR 311B and MGMT 271 may be taken for GUR credit)*

- ◆ **NURSING (NURS)**

- 412–Policy, Leadership and U.S. Healthcare (5)

- ◆ **POLITICAL SCIENCE (PLSC)**

- 101–Government and Politics in the Modern World (5) *(Only one of Political Science 101 and Honors 206 may be taken for credit)*
- 250–The American Political System (5)
- 271–Introduction to International Relations (5)
- 291–Introduction to Comparative Politics (5)
- 311–Introduction to Law and Judicial Process (5) *(Only one of PLSC 311, FAIR 311B and MGMT 271 may be taken for GUR credit)*
- 372–International Political Economy (5).

- ◆ **PSYCHOLOGY (PSY)**

- 101–Introduction to Psychology (5) *(Only one of Psychology 101 and Honors 204 may be taken for credit)*
- 116–Human Sexuality (5)
- 117–The Psychology of Identity (5)
- 341–Psychology and Culture (5)

- ◆ **SOCIOLOGY (SOC)**

- 221–Introduction to Population Issues (5)
- 234–Special Topics in Sociology (5) *(May be taken only once for GUR credit)*
- 251–Sociology of Deviant Behavior (5)
- 255–Social Organization of Criminal Justice (5)
- 260–The Family in Society (5)
- 342–Sociology of Religion (5)

## COMPARATIVE, GENDER, AND MULTICULTURAL STUDIES (ACGM & BCGM)

Acquaintance with the values and viewpoints of a variety of cultures and societal roles helps overcome provincialism, aids self-understanding and is an important element in an educated outlook on the contemporary world.

Complete 2 courses, one from Block A and one from Block B.

### Block A—Primary emphasis outside North America and/or Europe.

*Provides an introduction to civilizations of Asia, Africa, the Middle East and Latin America.*

#### ◆ ANTHROPOLOGY (ANTH)

- 362—Peoples of Asia (5)
- 365—Peoples of Latin America (5)

#### ◆ ART HISTORY (A/HI)

- 201—Zen and the Art of Tea (3)
- 250—African Visual Culture from Prehistory to Present (3)
- 270—Visual Culture in South and Southeast Asia (3)
- 271—Visual Culture in East Asia (3)

#### ◆ DANCE (DNC)

- 232—Movement and Culture (3)

#### ◆ EAST ASIAN STUDIES (EAST)

- 201—Introduction to East Asian Civilizations (5) *(Also taught as HIST 280)*
- 202—East Asian History in the Early-Modern and Modern Eras (5) *(Also taught as HIST 281)*
- 230—Modern Chinese Society and Language (3)
- 333—East Asia: Society and Environment (3) *(Also taught as ENVS 333)*
- 360—China and the Emerging World Economy: From Antiquity to the Early Modern (5) *(Also taught as LBRL 360)*

#### ◆ ENGLISH (ENG)

- 335—Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America (5)
- 336—Scriptural Literatures (5)

#### ◆ ENVIRONMENTAL STUDIES (ENVS)

- 333—East Asia: Society and Environment (3) *(Also taught as EAST 333)*
- 334—South Asia: Society and Environment (3)
- 335—The Middle East: Society and Environment (3)

#### ◆ EURASIAN STUDIES (EUS)

- 210—Nomads of Eurasia (5)

#### ◆ FAIRHAVEN (FAIR)

- 210A—World Issues (5)
- 334H—Human Rights in Africa (5)
- 334K—Human Trafficking and Smuggling (4) *(Also taught as INTL 335)*
- 371B—Topics in Middle East Studies (3-6)

#### ◆ HISTORY (HIST)

- 232—History of the Jews (5)
- 273—Latin America: 1492-1824 (5)
- 274—Latin America: 1824 to the Present (5)
- 280—Introduction to East Asian Civilizations (5) *(Also taught as EAST 201)*
- 281—East Asian History in the Early-Modern and Modern Eras (5) *(Also taught as EAST 202)*
- 285—African History to 1800 (5)
- 286—African History 1800–Present (5)
- 287—Introduction to Islamic Civilization (5)
- 288—History of the Modern Middle East (5)
- 290—The Early Modern Atlantic World (5)
- 359—America and Vietnam (5)

#### ◆ HONORS (HNRS)

- 105—Major Cultural Traditions III (4)

#### ◆ INTERNATIONAL STUDIES (INTL)

- 201—Introduction to Global Studies (5)
- 335—Human Trafficking and Smuggling (4) *(Also taught as FAIR 334K)*

#### ◆ LIBERAL STUDIES (LBRL)

- 231—Introduction to the Study of Religion (5)
- 271—Humanities of India (5)
- 273—Art and Society in China and Japan (5)
- 275—Humanities of Japan (5)
- 276—Humanities of Africa (5)
- 277—Humanities of China (5)
- 278—Humanities of Islamic Civilization (5)
- 283—Religion and Globalization (5)
- 332—World Religions (5)
- 334—Hebrew Bible and the Religion of Ancient Israel (5)
- 338—Mysticism (5)
- 345—Fierce Goddesses of India (5)
- 360—China and the Emerging World Economy: From Antiquity to the Early Modern (5) *(Also taught as EAST 360)*
- 362—Islam in the Indian Ocean World (5)
- 372—Postcolonial Novels: Art, Rhetoric and Social Context (5)
- 375—Buddhism (5)
- 378—Religion and Society in India (5)
- 380—Religion and Society in China (5)
- 382—Religion and Society in Japan (5)

## ◆ MODERN AND CLASSICAL LANGUAGES

### Arabic (ARAB)

- 202—Intermediate Arabic (5)
- 203—Intermediate Arabic (5)

### Chinese (CHIN)

- 202—Second-Year Chinese (5)
- 203—Second-Year Chinese (5)
- 301—Third-Year Chinese (4)
- 302—Third-Year Chinese (4)
- 303—Third-Year Chinese (4)
- 304—Chinese Grammar and Composition (4)

### Japanese (JAPN)

- 202—Second-Year Japanese (4)
- 203—Second-Year Japanese (4)
- 301—Third-Year Japanese (4)
- 302—Third-Year Japanese (4)
- 303—Third-Year Japanese (4)
- 305—Japanese Conversation (3)
- 401—Advanced Japanese (4)

### ◆ MUSIC (MUS)

- 205—Survey of World Musical Cultures (3)

### ◆ NURSING (NURS)

- 452—Global Health Inequities and Interventions (5)

### ◆ POLITICAL SCIENCE (PLSC)

- 346—Politics of Inequality (5)

### ◆ SOCIOLOGY (SOC)

- 334—Contemporary Chinese Society (5)
- 348—Global Health (5)
- 366—Colonialism, Slavery, and Links to Contemporary Racism (5)
- 390—Globalization and Families (5)

### ◆ WOMEN, GENDER AND SEXUALITY STUDIES (WGSS)

- 314—Global Women (4)

### Block B—Primary emphasis inside North America and/or Europe.

*Provides an introduction to multicultural experience and to gender studies.*

#### ◆ AMERICAN CULTURAL STUDIES (AMST)

- 202—The American Indian Experience (4)
- 203—The Hispano/a-American Experience (4)
- 204—The African-American Experience (4)
- 205—The Asian-American Experience (4)
- 206—The Jewish-American Experience (4)
- 242—The Lesbian, Gay, Bisexual, Transgendered Experience (4)
- 301—Comparative Cultural Studies (4)
- 344—Asian American Psychology (4) *(Also taught as FAIR 344P)*
- 362—Asian-American History (5)

#### ◆ ANTHROPOLOGY (ANTH)

- 104—American Mosaic: The Cultures of the United States (4)
- 353—Sex and Gender in Culture (5)
- 361—Native Peoples of North America (5)

#### ◆ CANADIAN-AMERICAN STUDIES (C/AM)

- 331—Canada: Society and Environment (3) *(Also taught as ENVS 331)*

#### ◆ COMMUNICATION STUDIES (COMM)

- 225—Communication, Diversity and Controversy (4)
- 260—Communication, Identity and Difference (5)

#### ◆ EDUCATION (EDUC)

- 205—Disability, Diversity, and the Mass Media (4)

#### ◆ ENGLISH (ENG)

- 227—Queer Literature (5)
- 234—African-American Literature (5)
- 235—American Indian Literatures (5)
- 236—Asian-American Literatures (5)
- 239—Latina/o Literatures (5)
- 334—Literary and Creative Expression Across North America and Europe (5)
- 338—Women and Literature in North America and Europe (5)

#### ◆ ENVIRONMENTAL STUDIES (ENVS)

- 331—Canada: Society and Environment (3) *(Also taught as C/AM 331)*

#### ◆ EURASIAN STUDIES (EUS)

- 201—Russian Civilization (5)

#### ◆ FAIRHAVEN (FAIR)

- 334L—The Holocaust (4) *(Also taught as INTL 336)*
- 344P—Asian-American Psychology (4) *(Also taught as AMST 344)*

#### ◆ HISTORY (HIST)

- 158—Race and Identity in Modern America (4)
- 262—African American History to 1865 (5)
- 263—African Americans since 1865 (5)
- 265—Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History (5)
- 268—Introduction to Asian American History (5)
- 275—The Indian in American History (5)
- 278—Multiculturalism in Canada (5)
- 353—Latinas/os in the US West (5)

**Block B—Primary emphasis inside North America and/or Europe (continued)****◆HONORS (HNRS)**

- 106—Major Cultural Traditions IV (4)
- 218—Colloquium in Women, Gender, and Sexuality Studies (4)

**◆INTERNATIONAL STUDIES (INTL)**

- 336—The Holocaust (4) *(Also taught as FAIR 334L)*

**◆JOURNALISM (JOUR)**

- 375—Diversity, Mass Media and Social Change (4)

**◆LIBERAL STUDIES (LBRL)**

- 281—Representations of Otherness (5)

**◆NURSING (NURS)**

- 432—Community-Based Care for Vulnerable Populations (3)

**◆PSYCHOLOGY (PSY)**

- 119—Psychology of Gender (4)

**◆SOCIOLOGY (SOC)**

- 268—Gender and Society (5)
- 269—Race and Ethnic Relations (5)
- 365—Gender, Bodies, and Sports (5)
- 368—Gender and Education (5)

**◆SPECIAL EDUCATION and EDUCATIONAL LEADERSHIP (SPED)****Compass to Campus (C2C)**

- 203—Compass to Campus: Youth Mentoring Toward Social Justice (5)

**◆WOMEN, GENDER AND SEXUALITY STUDIES (WGSS)**

- 211—Introduction to Women Studies (4)
- 320—Topics in Women, Gender, and Sexuality Studies (3-5)

**NATURAL SCIENCES (LSCI & SCI)**

The Natural Sciences requirement provides an introduction to the content and methods of the physical and biological sciences. These fields investigate natural phenomena, ranging from the origin of the universe to development of life forms to the structure of the atom. Their methods include direct and indirect observation, experimentation, and construction of theoretical models of natural systems.

**Complete 3 courses. At least two of the courses must be from the LSCI list; the third course may be from either the LSCI list or SCI list.**

Note: *Several of the courses in this list have prerequisites.*

**LSCI (courses with a laboratory component)****◆ANTHROPOLOGY (ANTH)**

- 215—Introductory Biological Anthropology (5)

**◆BIOLOGY (BIOL)**

- 101—Introduction to Biology (4)
- 102—Biological Diversity: Evolution and Systems (4)
- 204—Introduction to Evolution, Ecology and Biodiversity (5)
- 205—Introduction to Cellular and Molecular Biology (5)
- 206—Introduction to Organismal Biology (5)

**◆CHEMISTRY (CHEM)**

- 101—Chemical Concepts (4)
- 121—General Chemistry I (5)
- 122—General Chemistry II (5)
- 123—General Chemistry III (4)
- 125—General Chemistry I, Honors (5)
- 126—General Chemistry II, Honors (5)
- 225—General Chemistry III, Honors (5)
- 251—Elementary Organic Chemistry (5)

**◆COMMUNICATION SCIENCES AND DISORDERS (CSD)**

- 253—Speech and Hearing Sciences for the Liberal Arts (4)

**◆ENVIRONMENTAL STUDIES (ENVS)**

- 203—Physical Geography (4)

**◆GEOLOGY (GEOL)**

- 101—Introduction to Geology (4) *(Only one of Geology 101 and Honors 212 may be taken for credit)*
- 211—Physical Geology (5)
- 212—Historical Geology (4)
- 252—The Earth and Its Weather (4)

**◆HONORS (HNRS)**

- 211—Colloquium in Physics (4) *(Only one of Honors 211 and Physics 101 may be taken for credit)*
- 212—Colloquium in Geology (4) *(Only one of Honors 212 and Geology 101 may be taken for credit)*
- 213—Colloquium in Biology (4)

**◆PHYSICS (PHYS)**

- 101—Physics Analysis (4) *(Only one of Physics 101 and Honors 211 may be taken for credit)*
- 104—Physics Applications (4)
- 115—Principles of Physics II (5)
- 116—Principles of Physics III (5)
- 161—Physics with Calculus I (5)
- 162—Physics with Calculus II (5)
- 163—Physics with Calculus III (5)

**◆SCIENCE EDUCATION (SCED)**

- 201—Matter and Energy in Physical Systems (4)
- 202—Matter and Energy in Earth Systems (4)
- 203—Matter and Energy in Life Systems (4)
- 204—Matter and Energy in Chemical Systems (4)

**SCI (courses without a laboratory component)****◆ASTRONOMY (ASTR)**

- 103—Introduction to Astronomy (4)
- 113—Sun, Moon, and Planets (3)

**◆BIOLOGY (BIOL)**

- 140—The Ecology and Economics of Salmon Recovery (4) *(Also taught as ECON 140)*

**◆ECONOMICS (ECON)**

- 140—The Ecology and Economics of Salmon Recovery (4) *(Also taught as BIOL 140)*

**◆ENERGY (ENRG)**

- 101—Energy and Society (3)

**◆ENVIRONMENTAL SCIENCE (ESCI)**

- 101—Environmental Studies: A Scientific Approach (3)
- 204—The Oceans: Topics in Marine Science (4)

**◆GEOLOGY (GEOL)**

- 204—Geology and Society (3)
- 303—Dinosaurs and Their Environment (3)
- 308—Earthquakes (3)
- 315—Minerals, Energy and Society (4)
- 340—Geological Oceanography (3)

**◆MATERIALS SCIENCE (MSCI)**

- 101—The Materials Revolution (4)

**◆PHYSICS (PHYS)**

- 102—Physics and Contemporary Issues (3)
- 114—Principles of Physics I (5)

# Graduate School

## Introduction

E-mail: [gradschool@wwu.edu](mailto:gradschool@wwu.edu)  
[www.wwu.edu/gradschool](http://www.wwu.edu/gradschool)

Kathleen Kitto, Dean, Old Main 530, 360-650-3170

WWU is authorized by the State Legislature to award eight graduate degrees:

- Master of Arts (MA)
- Master of Fine Arts (MFA)
- Master of Science (MS)
- Master of Education (MEd)
- Master of Business Administration (MBA)
- Master of Music (MMus)
- Master of Professional Accounting (MPAcc)
- Master in Teaching (MIT)

The purpose of graduate study at WWU is to provide students quality graduate education with opportunities for research and professional development. Graduate programs are intended to prepare able students for (1) teaching, (2) entering professions, (3) career advancement and (4) further advanced study.

WWU's graduate programs are accredited by the Northwest Commission on Colleges and Universities. Graduate programs which result in educator certification are also accredited by the National Council for the Accreditation of Teacher Education (NCATE). The College of Business and Economics is accredited by the AACSB International Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels. The Department of Communication Sciences and Disorders is accredited by the American Speech-Language-Hearing Association's Council on Academic Accreditation in Audiology and Speech-Language Pathology (ASHA) and by the National Council for the Accreditation of Teacher Education (NCATE). The mental health and school counseling programs are accredited by Council for Accreditation of Counseling and Related Educational Programs (CACREP). The Rehabilitation Counseling program is accredited by the Council on Rehabilitation Education (CORE). The University is a member of the Council of Graduate Schools in the United States and adheres to the general policies and criteria established by this national association.

The graduate programs provide service to the state and its major divisions, to the business and commercial sector, and to a number of professions.

Several of WWU's graduate programs offer courses or program elements at locations outside Bellingham, within the Puget Sound region and online. Refer to the University's online Summer Session Bulletin ([www.wwu.edu/ee/summersession/](http://www.wwu.edu/ee/summersession/)) for programs offering summer graduate courses.

Persons who plan to enter graduate study at WWU should read this section of the General Catalog closely before applying for admission to graduate study or enrolling in any course intended to count toward a master's degree or advanced certificate of study. Students working toward a residency, continuing, or professional teaching certificate should contact the Certification Office in the Woodring College of Education. Students should consult with the appropriate graduate program advisor and the Graduate School for additional admissions or program-related questions.

## Admission

Admission is granted by the Graduate School of Western Washington University with the concurrence of the department or program unit in which the student will pursue graduate study. The Graduate School informs applicants of the admissions decision. Online application submission and credit card payment is available from the Graduate School Website. A nonrefundable application fee of \$100 (subject to change) is charged for each application submitted, whether initial application, or request to defer, change to another quarter of admission, or transfer into another WWU graduate program. Admission to the Graduate School is for a single program, specified on the application for admission. Concurrent admission to two programs may be considered on a case-by-case basis with approval from the Graduate School and the respective departments. Separate applications and fees are required for each program. A non-refundable confirmation deposit will be required to secure admission and enrollment eligibility. Graduate School admission deadline dates are as follows, although many programs have earlier specific deadline dates and do not admit for all quarters.

Initial application with all supporting materials (see below) must be received by the Graduate School by June 1 for fall, October 1 for winter, February 1 for spring and May 1 for summer unless program-specific deadlines exist (see specific program information).

**NOTE:** The requirements and procedures listed below demand lead time. Applicants are urged to submit all necessary materials as early as possible before the beginning of the term for which admission is requested or by the earlier, program specific deadline dates. Timeliness of complete

application materials may impact graduate assistantships and other sources of funding. Faculty review of application materials is unlikely during periods that the University is not in session.

## General Requirements

### Full Admission to Master's Degree Study

- A four-year baccalaureate degree from a U.S. college or university that was regionally accredited at the time the degree was conferred, or an equivalent baccalaureate degree from a foreign university; the degree must be appropriate to the master's study intended. Unofficial transcripts from every higher education institution attended for academic credit are required with the application. These transcripts will be used for GPA calculation and evaluation purposes. Official transcripts will be required of candidates upon acceptance of an offer of admission.
- A 3.0 undergraduate grade point average (on a 4.0 scale) in the last 90-quarter or 60-semester hours of study. In order for post-baccalaureate credit to be included in the GPA computation, the coursework must be upper division. Post-baccalaureate coursework at community colleges will not be included in the GPA used for admission. Applicants with advanced degrees from accredited institutions are generally, at the discretion of the Graduate School, considered to have met GPA requirements.
- Three current letters of reference from professors in the applicant's undergraduate major field, or from professors of post-baccalaureate courses, or from others able to make an appropriate assessment of the applicant's academic or professional competence. The MBA and MPAcc programs require a résumé in lieu of references. The Educational Administration program requires a professional recommendation.
- Graduate Record Exam (GRE) or other test scores may be required; applicants with advanced degrees from regionally accredited institutions applying to certain programs do not need to submit scores. MPAcc applicants must provide the Graduate Management Admissions Test (GMAT); MBA applicants may take either the GMAT or the GRE. Some programs accept the Miller Analogies Test (MAT). See program admission requirements for specific test information and requirements. Scores must be received in the Graduate School office by the program specific deadline date; if no program-

specific deadline date, then by the Graduate School deadline date.

- All applicants must demonstrate English language proficiency. At least minimum TOEFL or IELTS test scores (see International Applications section) must be submitted unless English is the native language or the degree is from a regionally accredited U.S. institution, or from Great Britain, Australia, New Zealand or English-speaking provinces of Canada.
- Favorable review and recommendation of applications by the graduate faculty in the program to which application is made.
- **Special Requirements.** Certain programs have additional requirements or procedures; see the program descriptions. If a program requires a statement of purpose and/or writing sample(s), these must accompany the application. See specific program information for clarification.

Materials submitted in support of an application will not be returned, forwarded, or copied at the request of the applicant; materials are used only for the WWU Graduate School admissions and Teaching Assistant selection process. Incomplete or inactive applications are kept on file in the Graduate School for three years, then destroyed. If during this three-year period an applicant reapplies, official documents (test scores, transcripts, current letters of recommendation) may be used for a new admission application.

The MAT is offered Monday through Friday by appointment through the Western Washington University Testing Center, 360-650-3080.

Contact Educational Testing Service in Princeton, N.J. at 866-473-4373 or [www.gre.org](http://www.gre.org) for further information about the GRE testing program. For information about the GMAT, visit [www.mba.com](http://www.mba.com).

Current GRE board policy states that scores are reportable for five years. The Graduate School accepts only official test scores from admissions tests sent directly from the testing organization. Students should refer to the specific test website for information on the availability of official test scores.

### Provisional Admission

Students who do not meet all the requirements for full admission may be granted provisional admission. The faculty of the applicant's intended graduate program must submit a statement of support for provisional admission to the graduate dean. If provisional admission is authorized by the Graduate School, the provisions are stated in the letter offering the student special admission to

## GRADUATE SCHOOL

graduate study. No K (incomplete) grades are allowed until provisional status is removed. A provisionally admitted student is not eligible for a teaching assistantship or Graduate School-funded scholarships until the provisional status is removed.

### Licenses/Certification

Students in some master's programs also apply for licensing or certification through professional organizations or state agencies. The certificate or license is separate from the master's degree. It is the applicant's responsibility to inquire about licensing or certification requirements prior to enrolling.

### International Applicants

All applicants must demonstrate competence in written and spoken English. This can be done by submitting a satisfactory score on the international TOEFL or IELTS, taken within one year of the date of application. Minimum TOEFL score of 567 for the paper-based test; 227 for the computer-based test; 86 for the Internet-based test. IELTS minimum score is 7.0. Official test scores must be on file in the Graduate School prior to receipt of the application.

International students must submit official translations to English of all transcripts and diplomas from all post-secondary institutions attended. Documents must be issued within two years at the time of application. All international transcripts must be submitted to World Education Service (WES) for authentication and course-by-course evaluation. To be considered official, transcripts must be in sealed envelopes prepared by the university or college; attested/certified copies prepared by the institution may be accepted if originals cannot be provided by the institution.

#### EXCEPTION:

Applicants attending institutions in China must request official transcripts from the Ministry-authorized verification offices listed below; transcripts directly from an institution cannot be considered official.

China Academic Degrees and Graduate Education Development Center (CDGDC)  
Website: [cqy.chinadegrees.cn/](http://cqy.chinadegrees.cn/)

China Higher Education Student Information & Career Center (CHESICC)  
Website: [chsi.com.cn](http://chsi.com.cn)

International students must file a satisfactory statement of financial responsibility with the Graduate School. Current expenses are approximately \$34,000 for one academic year of

study. An application for an international student cannot be processed unless accompanied by appropriate financial guarantee documentation. International students are not eligible for federal or state governmental financial aid.

International students are encouraged to complete the admission process as soon as possible to obtain a visa and make travel arrangements.

### Funding and Support

#### Graduate Assistantships

Graduate assistantships are available in limited number in most graduate programs and are competitively awarded. Assistantships are not available in self-sustaining (non state-supported) programs. Only students with full admission, not provisional status, may be awarded the TA. To continue as a graduate assistant, the graduate student must meet or exceed all academic criteria pertaining to satisfactory progress toward the degree, and meet or exceed all departmental requirements and criteria for satisfactory service as a graduate teaching assistant. Graduate students are limited to no more than the equivalent of seven full-time quarters of service as graduate teaching assistants. Program advisors may recommend students for additional quarters of service, which requires approval of the Graduate Dean. Graduate assistants must meet the Graduate School definition of full-time enrollment.

Duties vary according to the department and program, the needs of the program faculty and the student's graduate plan of study. A full-time assistantship does not allow for additional salary or employment from the University. Graduate teaching assistantship applicants whose native language is not English must demonstrate English language proficiency required for classroom or laboratory instruction. Applicants to graduate programs check the TA box on the online application for consideration (go to Graduate School website).

#### Financial Aid

Graduate students also are eligible for several types of financial aid; information can be obtained from the University's Financial Aid Office, [www.finaid.wvu.edu/](http://www.finaid.wvu.edu/).

#### Program Requirements

Graduate programs at WWU generally require a minimum of 45 credits with thesis and 48 credits without thesis. The minimum basic program requirement generally contains at least 24 credits of approved 500- and 600-level courses other than

the thesis (690); and no fewer than 5 credits and no more than 36 credits of thesis (690). For a non-thesis program, the minimum basic program requirement must contain at least 38 credits of approved 500- and 600-level courses. A maximum of 10 credits of approved 400-level courses can be applied to either thesis or non-thesis programs. All 400-level courses must meet the same standards as regular 500-level courses with regard to grading, time frame, et cetera.

For students who have taken a significant number of graduate level accounting, mathematics or computer science courses as undergraduates at WWU, and who as undergraduates were identified for admission to the Graduate School, the graduate programs in accounting, mathematics and computer science require only 36 500- and 600-level credits. Guidelines for this option are available from the departments.

It is recommended that no more than 10 credits of directed independent study be applied toward the degree, although some programs are more restrictive. A graduate student registering for a 500 or 400 independent study course used for the degree develops a contract (online form) with the instructor, which is then reviewed and approved by the graduate program advisor, department chair and the Graduate School. Independent study credit normally will not be given when the student is paid for engaging in the work described on the contract (e.g., internship, work-study projects, graduate assistantships).

Many programs require more than 45 or 48 credits to meet degree requirements. Also, certain undergraduate deficiencies may add additional credits to an individual student's course of study. (See Plan of Study section that follows.) These deficiencies may affect financial aid awards.

### **Additional Requirements**

Program descriptions in this catalog provide information about special requirements: statistics competency, second language competency, sequence of particular courses, et cetera. Most graduate programs provide information about such special requirements; the student should request this information from the program advisor.

Students whose research involves human subjects or live vertebrate animals must obtain approval prior to conducting research and comply with University policies regarding these types of research. Please refer to [www.wvu.edu/depts/rsp](http://www.wvu.edu/depts/rsp).

Graduate students in departments with a foreign language requirement may satisfy the requirement by (a) successfully completing the final course in a second-year language sequence, (b) passing a

reading competency exam in the language, or (c) completing another department-approved course or course sequence. Each department sets its own minimum standard to indicate the required level of competency. Graduate students are encouraged to complete the foreign language requirement early in their program.

### **Time Limits**

All requirements for the degree must be completed within five years of the initial quarter of matriculation. Active graduate students within this five-year time period maintain access to library and computer resources. Students who have not completed their program after three years of study are required to file a plan for completion of the degree within the five-year limit. Otherwise it is understood that the student has decided to withdraw from the program, and the graduate file is inactivated. Student computer accounts which allow access to computer labs, e-mail, library privileges, and other student technology services are purged at the end of this five-year period. Files of students who are admitted and register for coursework but do not complete their programs are kept for five years after the five-year program requirement. Files of students who complete programs are archived for 35 years.

### **Academic Load**

The maximum credit load for a graduate student is determined in consultation with the student's graduate program advisor, within the policies set by the Registrar.

The Graduate School defines full-time enrollment as 8 or more credits per quarter. Graduate students who have successfully completed all coursework on the approved Plan of Study, except for thesis (690) or research (691) work, maintain eligibility for the teaching assistantship if enrolled for a minimum of two credit hours of continuous enrollment, thesis, or research. See the Financial Aid section for implications of being enrolled for 2 credits if the student requires financial aid.

### **Transfer, Correspondence and Workshop Courses**

Coursework taken prior to formal admission to a WWU master's degree program, whether at Western or another accredited institution, can be considered for transfer credit if the following criteria listed below are met:

- A limit of 12 quarter credits
- Graded B, 3.0 or better
- Taken no more than three years prior to admission

## GRADUATE SCHOOL

- Acceptable to the granting institution for its master's degree
- Not used toward the completion of any other degree

Credit taken at another accredited institution, concurrent with graduate status in a WWU master's degree program, can also be considered for transfer credit if the same criteria are met. Such coursework should be approved in advance of registration to prevent any misunderstanding or false expectations.

The request for transfer credit, including a copy of the course syllabus, is submitted by the graduate program advisor and student for approval by the Graduate School. If the coursework was taken while the student was enrolled in another degree program (undergraduate or graduate level), the student must provide documentation from the granting institution stating that the credits were not counted toward any degree.

At the recommendation of the graduate program advisor and the approval of the Graduate School, some course requirements may be waived, depending on a student's previous academic experience. However, the total number of credits required for the degree must still be met.

No credit is given for correspondence courses. No credit is allowed by challenge examination or performance.

Courses offered as workshops or in a shortened time frame, even under regular course numbers, do not qualify for graduate credit toward a degree, unless the department obtains prior permission for each specific instance from Graduate Council. To ensure that prior approval has been granted, students should obtain written permission from the Graduate School prior to enrolling.

### Thesis and Comprehensive Examinations

Master's degree programs are thesis or non-thesis (additional coursework and, in most programs, a comprehensive exam). See specific program descriptions for information. Minimally, the thesis committee has three members. The chair and a second member must be regular graduate faculty members from the student's department or program. Guidelines for the thesis are available online at the Graduate School Website. Joint manuscripts are not permitted. Only an individually authored manuscript will meet the thesis requirements. Departments that require the thesis customarily provide additional guidance.

Refer to the Graduate School website for current information on Graduate School requirements pertaining to thesis publication.

Prior to registration for thesis, departments and the Graduate School require that a student be advanced to candidacy and have an approved thesis topic on file in the Graduate Office. Students whose research involves human subjects or live vertebrate animals must comply with University policies regarding these types of research. Please refer to [www.wvu.edu/depts/rsp](http://www.wvu.edu/depts/rsp). Registering for thesis credits beyond the maximum allowed for the degree may affect a student's eligibility for certain kinds of financial aid.

Comprehensive exams or assessments vary among programs. Students should consult their respective programs for information.

The comprehensive exam should be scheduled for the final quarter of the student's enrollment. It may be deferred upon request by the student and agreement by the graduate advisor until all coursework has been completed. Comprehensive exams, if failed, may be repeated, but only if the graduate faculty of the particular program approves the student's request to repeat the exam.

### Plan of Study

During the first quarter of graduate study at WWU, the student and graduate program advisor together develop a "Plan of Study" in accordance with the requirements described in the catalog's program narrative. This plan is signed by both the student and program advisor and submitted to the Graduate School for approval. Plans of study may be amended as necessary. Failure to have an approved plan of study on file may result in loss of registration privileges.

### Scholarship Standards

A maximum of 10 credits of C grades (C+, C, C-) is allowed towards completion of a graduate program (courses listed on the approved plan of study). Courses in which a D+ or lower is earned may not be applied towards completion of a graduate program. The accumulation of more than 10 credits of C+ or lower (including U and Z) grades will result in the student being withdrawn from the master's program. There are certain courses that must be passed with a grade of B or better; course descriptions note such requirements. All grades of C+ or lower count toward the 10-credit maximum, even if the course is retaken and a grade of B or better, or S, is earned. A graduate student may be required by the department to repeat a course to document attainment of a certain level of competence or knowledge. Pass/No Pass grades are not applicable toward a graduate degree. S grades are applicable, but not computed in the GPA. An incomplete (K) grade may be assigned in accordance with the regulations outlined in the



Academic Policies section of this catalog. If, after a calendar year, the course requirements have not been met, the K grade lapses to a Z. These Z grades are computed as failing grades in a student's grade point average and may affect retention in the master's program. Exceptions to the K grade rule are K grades which are received for thesis and certain research courses. In these cases, the K grades are allowed to stand until the thesis or research is completed, whereupon the grade is changed to the earned grade.

To remain a candidate for the degree, a student must maintain at least a 3.0 GPA in courses listed on the plan of study. The GPA is calculated on letter grades earned (on record) at the time grades are posted, i.e., K grades are not considered. A student also must be making satisfactory progress in the graduate program to which he or she has been admitted.

### **Degree Candidacy**

Advancement to degree candidacy is formal recognition that the student has completed all admission requirements and has demonstrated satisfactory performance in at least 12 credits of graduate study as listed on an approved plan of study. Advancement to candidacy is a prerequisite to earning the master's degree and should be accomplished as early as the student is eligible. Advancement is granted by the student's program upon completion of minimum requirements as stated above. A student must be advanced to candidacy before submitting the application for degree. Confer with your advisor if you have questions about your status or eligibility for advancement to candidacy.

### **Awarding of the Master's Degree**

The master's degree is earned at the end of the quarter in which the student has completed all degree requirements and has filed the application for degree. Recommendation for the degree is made to the Graduate Council by the student's program advisor and thesis committee (if in a thesis program). Application for the degree must be made by the last day of classes of the quarter prior to the quarter the student intends to graduate. A student must also be enrolled for at least two state-supported credits at WWU during the quarter in which the degree is awarded or during the preceding (calendar) quarter. Auditing a course for this purpose is not permitted. A commencement ceremony is held at the end of each quarter. Students participate in the commencement ceremony for the quarter in which degree requirements are met, including filing the

application for degree and paying the diploma fee by the stated deadline.

### **Teacher Certification**

The Woodring College of Education, not the Graduate School, administers the certification of P-12 teachers. Students interested in certification at the P-12 or secondary level, contact the Secondary Education Department, MH 173 360-650-3327. Students interested in Special Education P-12 certification, contact the Special Education Department, MH 161, 360-650-3330. Other certification questions can be directed to the Teacher Certification, Student Services, MH 250, 360-650-4930 or [wce.wvu.edu/cert/certification-accreditation](http://wce.wvu.edu/cert/certification-accreditation).

### **Undergraduate and Post-Baccalaureate Enrollment in 500/600 Level Courses**

Undergraduates at WWU who are in their senior year and have at least a 3.0 grade point average can take a single graduate course during any quarter, but under certain provisions. There must not be an appropriate undergraduate course in their field that is equally available; permission must be obtained in advance from the department chair and graduate program advisor of the department offering the graduate course; and the Graduate School must approve the enrollment. A senior who later enters a master's program at WWU may transfer up to twelve credits of coursework into the master's program. The credit must not have been used for the baccalaureate degree and must meet all criteria for transfer credit. To register, contact the Graduate School for a registration system override. Post-baccalaureate students may enroll for 500-level courses. All prerequisites must be met and permission obtained from the department.

Neither undergraduate nor post-baccalaureate students may enroll in 600-level courses.

### **The Graduate Council**

The Graduate Council, comprised of representatives from graduate faculty, colleges with graduate programs, and graduate students, is assigned responsibility within the University for graduate policy and procedures. The Council reviews all graduate course proposals and graduate program requirements and conducts periodic reviews of graduate programs. The Council also hears and decides on requests for exceptions from standing policies and procedures that regulate graduate study.

### **Faculty/Student-Designed Programs**

## GRADUATE SCHOOL

### MA, MS, MEd

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed program. Each case is considered on its merits.

For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program.

Detailed information can be obtained by contacting the Graduate School. Ask for Fact Sheet: Faculty/Student-Designed Programs. Procedures for applying are contained in the Fact Sheet.

## Master of Arts

### Student/Faculty Designed, MA

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed program. Each case is considered on its merits. For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program.

Detailed information can be obtained by contacting the Graduate School. Ask for **Fact Sheet:**

### Faculty/Student-Designed Programs.

Procedures for applying are contained in the Fact Sheet.

## Master of Education

### Student/Faculty Designed, MEd

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed program. Each case is considered on its merits. For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program.

Detailed information can be obtained by contacting the Graduate School. Ask for **Fact Sheet:** Faculty/Student-Designed Programs. Procedures for applying are contained in the Fact Sheet.

## Master of Science

### Student/Faculty Designed, MS

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed

program. Each case is considered on its merits. For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program.

Detailed information can be obtained by contacting the Graduate School. Ask for **Fact Sheet: Faculty/Student-Designed Programs**. Procedures for applying are contained in the Fact Sheet.

# College of Business and Economics

## Introduction

Dr. Craig P. Dunn, Dean  
Dr. Sandra Mottner, Associate Dean

## Mission Statement of the College

We are a student-focused school of business and economics engaged in scholarly and professional activities that contribute to the well-being of society.

## Objective of the College

The College of Business and Economics prepares men and women for positions of leadership and stewardship in the management and administration of complex organizations - from small companies to large multinational enterprises.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Accounting	BA
Business Administration	BA
Business and Sustainability	BA
Economics	BA
Manufacturing Management	BS
Master of Business Administration	MBA
Master of Professional Accounting	MPAcc

Requirements for the master's degrees offered in CBE are listed in the Graduate School section of the catalog.

## Major/Minors

### Minor

In addition to the majors provided by the five departments, a minor makes an excellent addition to a specialized program in other areas of the University. This gives relevant, realistic and applicable qualities to those valuable skills developed in other more abstract and theoretic departments. The combination of a minor with a major in speech, English, journalism, foreign languages or with other liberal arts majors provides an additional strength and resource to the individual's skills and educational development. See departments for details on minors.

### Minor Declaration Process

The application process originates with the College office when the student submits an online application from via the College of Business and Economics website, [cbe.wvu.edu/apply-cbe](http://cbe.wvu.edu/apply-cbe).

Students develop managerial skills, analytic economic skills and interpersonal sensitivities, as well as quantitative and accounting skills. All students earning a degree in one of the programs of the college will develop significant understanding of management information systems and computing.

The curriculum is primarily upper-division based upon a broad liberal arts education. Individual skills are developed sufficiently to achieve entry-level employment in many fields, but the College seeks to motivate and orient the student toward a lifelong learning experience. The College seeks to instill sensitivity to environmental aspects of business enterprise, promotes a commitment to ethical behavior, and provide a strong emphasis on forward-looking, goal setting behavior in the business world while encouraging an active role in community leadership.

The College of Business and Economics is accredited by the AACSB International-The Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels.

Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner.

## Combined Majors

Interdepartmental majors are given in economics/accounting, economics/environmental studies, economics/mathematics, economics/political science, economics/social studies, financial economics, politics/philosophy/economics and business administration/sustainability. See departments for details.

## College Admission and Advisement

### Admissions and Major Declaration

Admission to programs in the College of Business and Economics is selective and based upon prior academic performance. All students intending to

earn a degree in accounting or any area of business (except economics) must complete the foundation courses comprised of ACCT 240, 245; ECON 206, 207; MATH 157; MIS 220; DSCI 205; MGMT 271, or their approved equivalent, with a grade of C- or better. All foundation classes except MIS 220 must be taken as graded credit and cannot be taken Pass/ No Pass. Students must successfully complete the foundation courses and meet the admission criteria below before they are admitted to the College and declared a business or accounting major. Students interested in majoring in economics must consult the economics section of this catalog.

For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

**Department Chairs**

Dr. George Sanders  
 Dr. Steve Henson  
 Dr. Craig Tyran

Accounting  
 Economics  
 Decision Sciences

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above. If after completing the foundation courses they do not meet the criteria for full major admission, they will be dropped from the College. They may reapply should they repair the deficiency.

Provisional full major admit status in the College is provided to students completing their last foundation course(s) and would be eligible to enroll for major restricted courses as a full major in the following quarter upon successful completion of their current course work. Students may be in provisional status only one quarter. Failure to advance to full major status will result in removal from major status.

For students to be considered for pre-major, full major or provisional status the College office needs to have an application on file. See Admissions Process below.

Following admission to the College, a student is assigned an advisor and is required to consult with that advisor.

**Admission Process**

Students must confirm admission to Western Washington University before submitting an application to the College of Business and Economics. The application process originates with the College office when the student submits an on-line application form via the College of Business and Economics website, [cbe.wvu.edu/apply-cbe](http://cbe.wvu.edu/apply-cbe). Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner.

Students interested in either an economics major from the Department of Economics, or a BS degree in manufacturing management from the Department of Decision Sciences will submit an on-line application. Once an application is submitted, the student will be contacted by the department to schedule an interview.

Inquiries should be directed to College of Business and Economics, Western Washington University, 516 High Street, Bellingham, WA 98225-9072, or phone 360-650-3896.

# COLLEGE OF BUSINESS AND ECONOMICS

Dr. Ed Love  
Dr. Jongwook Kim

## Directors

Dr. L. Hart Hodges  
Pamela Whalley  
Dr. Steven Globberman  
Dr. Sandra Mottner  
Dr. George Zhang  
Dr. Stephen Senge  
Dr. Mary Sass

Finance and Marketing  
Management

Center for Economic and Business Research  
Center for Economic and Financial Education  
Center for International Business  
Center for Innovation in Education  
Center for Operations, Research and Management Science  
MBA Program and MPAcc Program  
General Business Degree at Poulsbo

## Other College Information

Information concerning admission and application to the College of Business and Economics is available online at [cbe.wvu.edu](http://cbe.wvu.edu).

## Retention

All majors in the College of Business and Economics (CBE) must maintain good academic standing with the University. A student with a Western Washington University cumulative GPA average below 2.0 will be dismissed from the College and not permitted to take additional courses in the College of Business and Economics until the deficiency is repaired. Students with two successive quarters of a CBE GPA cumulative average below a 2.3 will be dismissed from the College of Business and Economics.

## Requirements for Bachelor's Degree

Besides the general requirement for graduation from the University, explained elsewhere in this catalog, CBE has the following specific requirements:

- **At least 50 percent of the business credit hours required for the CBE majors and minors must be taken at Western Washington University**
- Electives may be selected as needed to ensure the required 180 quarter hours total credit is met, however majors in accounting and business administration must complete a minimum of 90 credits in areas other than accounting and business administration. All CBE courses are considered in the areas of accounting and business administration except DSCI 205, MATH 157, and all economics courses.
- **Communication.** All students must consult their advisor regarding writing proficiency and communications requirements; all CBE majors are required to take one Communication Focus (CF) course. Students seeking a BA in

Economics must complete a CF or CF-E designated course. Communication Focus courses are designated with a CF in the timetable; Communication Focus-Economics are designated with a CF-E in the timetable. Communication Focus (CF) designated courses include a professional quality presentation supported by appropriate technology component. Presentations may be made individually or in teams. In the latter case, each student must deliver a portion of the team presentation such that individual assessment is possible. Communication Focus-Economics (CF-E) designated courses are only offered by the Economics Department and include an oral presentation component.

Students are reminded that up to 32 hours of upper-division credit are elective. This provides significant opportunity to include courses in the arts, sciences and humanities. Early discussion with a CBE faculty advisor is strongly encouraged. Students desiring to take two concentrations, two majors, or two degrees must talk with an advisor in CBE for information related to the requirements and restrictions.

**Petitioning Procedure.** Any student who seeks a variation from the strict application of the rules, regulations or requirements of the College, should consult the advisor listed below based on their major status for guidance on the CBE process for petitioning the Dean:

- Pre-majors should consult the CBE Pre-Major Advisor
- Majors should consult their major department

## Special Programs

**Center for Economic and Financial Education.** The Center for Economic and Financial Education, coordinated by the economics department, is involved in providing economic knowledge, data and teaching aids to the grade schools and high

schools throughout the state. Affiliated with the Washington State Council on Economic Education, this center assists in raising the standards of economic literacy of the state.

**Center for Economic and Business Research.** This center undertakes research activities related to developing a better understanding of the economic and business climate of the Pacific Northwest. The center is developing and maintaining an economic database for the area, has developed a regional model that will assist in forecasting certain economic variables for the region, and responds to specific research requests from local public and private entities.

**Center for Innovation in Education.** This center, through faculty, student and industry partner involvement, is committed to enhancing and serving as an incubator for new methods of teaching and learning in fields of business, economics, and related disciplines in the College of Business and Economics.

**Center for International Business.** The Center for International Business provides opportunities for faculty and students to deepen their understanding of international business management techniques and issues through a

variety of activities including lectures and seminars, research projects, course curricula development and field studies.

**Center for Operations Research and Management Science.** The Center provides a platform for research-oriented outreach activities including the following: publishing a working paper series, conducting international symposiums and seminar series, creating new research opportunities for senior undergraduate and graduate students to get involved in faculty-guided applied research projects.

**Departments, Courses and Programs**

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online Timetable of Classes, and Extended Education bulletins.

The College of Business and Economics also offers the Business Administration Minor administered by the departments of Decision Sciences, Finance & Marketing, and Management

**Minor**

**Business Administration Minor**

Department of Decision Sciences, College of Business and Economics

**40-42 credits**

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Craig K. Tyran Parks Hall 343A 360-650-2207 Craig.Tyran@wwu.edu	<b>Minor Information: Academic Department Manager</b> Racheal Scholler Parks Hall 343 360-650-3902 Racheal.Scholler@wwu.edu

**Sample Careers**

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

The application process originates with the College office when the student submits an online application from via the College of Business and Economics website, [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe). Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner.

# COLLEGE OF BUSINESS AND ECONOMICS

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- FIN 341 - Principles of Finance
- MATH 156 - Algebra With Applications to Business and Economics
- MKTG 380 - Principles of Marketing
- MGMT 271 - Law and the Business Environment
- MGMT 311 - Introduction to Management and Organizational Behavior
- MIS 220 - Introduction to Business Computer Systems



# Accounting

## Introduction

Accounting is an important tool used by managers of economic organizations to plan, control and report financial activity. A thorough knowledge of accounting is, therefore, necessary to understand the operation and financial condition of any business, nonprofit organization or governmental agency.

The Department of Accounting offers a broad program of accounting courses that, coupled with required and elective courses in economics and business administration, provides the graduate with a sound educational foundation for an accounting career or post-graduate studies.

The accounting graduate can expect to find employment in a number of areas including private business, public accounting, not-for-profit organizations or governmental units. An accountant in private business or governmental service will typically work in such areas as cost analysis, taxation, auditing, accounting systems or cash management. Careers in public accounting typically involve work in taxation, auditing or management advisory services.

The accounting curriculum also provides a theoretical foundation for students who plan to take examinations to become a Certified Public Accountant (CPA) or a Certified Management Accountant (CMA). Students are urged to consider the variety and breadth of career opportunities available to the accounting graduate when they select their accounting elective courses.

For those students planning to take the CPA exam, the state of Washington requires additional education. Please see the website at [www.cbe.wvu.edu/acct](http://www.cbe.wvu.edu/acct) for details.

## Faculty

**GEORGE D. SANDERS** (1995) Chair and Professor. BS, Louisiana State University; MBA, University of New Orleans; PhD, The University of Alabama; CPA (inactive), state of Louisiana.

**HANMEI CHEN** (2015) Associate Professor. BS, MS Tsinghua University; PhD, Arizona State University.

**BURAK DOLAR** (2012) Assistant Professor. BA, Istanbul University; MBA, Troy University; PhD, University of Mississippi.

**DAWNA DRUM** (2016) Assistant Professor. BBA, University of Wisconsin-Eau Claire; MBA, Edgewood College, Madison, WI; PhD, Indiana State University.

**DAVID L. GILBERTSON** (1998) Professor. BS,

University of Southern California; MBA, University of Montana; PhD, University of Utah; CPA, state of Montana; CMA.

**MARGUERITE R. HUTTON** (1989) Professor. BBA, MPA, University of Texas at Arlington; PhD, University of Houston; CPA, state of Washington.

**ZENGHUI LIU** (2015) Assistant Professor. BS, Jilin University; PhD, Drexel University.

**STEPHEN V. SENGE** (1985-2000; 2007) Professor. BA, California Western University; MPA, Denver University; MA, DBA, Kent State University; CMA.

**KHIM L. SIM** (2008) Associate Professor. BS, Southeast Missouri State University; MA, Virginia Polytechnic Institute and State University; PhD, Drexel University.

**WILLIAM R. SINGLETON** (1976) Professor. BBA, Memphis State University; MBA, University of Portland; PhD, University of Hawaii; CPA, state of Washington.

**STEVEN H. SMITH** (2001-2008; 2012) Assistant Professor. BBA, Iowa State University; MS, Oklahoma State University; PhD, Arizona State University.

**AUDREY G. TAYLOR** (2002) Professor. BA, Smith College; MBA, University of Tennessee; MIE, PhD, Wayne State University; CPA, state of Michigan.

**DANIEL M. WARNER** (1978) Professor. BA, JD, University of Washington; MA, Western Washington University.

## Departmental Mission

The Department of Accounting provides high-quality, balanced accounting education to majors and other undergraduate and graduate students. Quality teaching is our most important function. We engage students in the development of communication, conceptual and technical skills. To exemplify an enthusiasm for professional activity, faculty maintain their own intellectual curiosity and community awareness. Faculty are active scholars and contribute positively to students' experience, and to the department, college, university, profession and community service.

Our objectives support the combined mission of teaching, scholarship and service.

## Teaching

- Integrate a broad range of accounting skills with an appreciation of ethical, cultural and environmental issues as they relate to accounting and business law.
- Promote oral and written communication, computer, research and group skills.

## ACCOUNTING

- Prepare students to become productive accounting and business professionals.
- Review and modify the curriculum to meet changing societal needs.

### Scholarship

- Produce, apply and disseminate knowledge in accountancy and business law and in the pedagogy of these disciplines. Faculty are encouraged to pursue scholarly projects that suit their professional talents and interests consistent with the mission of the College of Business and Economics.

### Service

- Serve the professional and broader communities.

### Declaration Process

See the College of Business and Economics admission section of this catalog for declaration of pre-major and major requirements and procedure.

### Other Departmental Information

### Communication Requirements

See the College of Business and Economics communication section of this catalog.

## Bachelor of Arts

### Accounting, BA

Department of Accounting, College of Business and Economics

**96-98 credits**

### Introduction

Accounting is an important tool used by managers of organizations to plan, control and report financial activity. A thorough knowledge of Accounting is necessary to understand the operation and financial condition of any business, non-profit organization or governmental agency. In addition, the Accounting curriculum provides a foundation for students who plan to take examinations to become a Certified Public Accountant (CPA) or Certified Management Accountant (CMA).

The college's expectation is that students will meet the following Learning Goals and Objectives through this degree program:

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology
3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

## Why Consider an Accounting Major?

The Accounting major offers a broad program of accounting courses, which coupled with required and elective courses in Economics and Business Administration, provides the graduate with a sound foundation for an accounting career or post-graduate studies. The Accounting graduate can expect to find employment in a number of areas including private business, public accounting, not-for-profit organizations or governmental units. Typical work may include areas such as cost analysis, taxation, auditing, accounting systems, taxation or cash management.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Professor George Sanders Parks Hall 451A 360-650-4811 George.Sanders@wwu.edu	<b>Major Information:</b> <b>Academic Department Manager</b> Michelle Stach Parks Hall 451 360-650-3202 Michelle.Stach@wwu.edu
Sample Careers		
Certified Public Accountant   Revenue Agent   Auditor   Fraud Examiner   Cost Analyst   Estate Planner   Controller   FBI Agent		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Pre-major:** Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above.

**Full major:** For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# ACCOUNTING

## Requirements

### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

### Accounting Core Courses

- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 321 - Accounting Information Systems I
- ACCT 342 - Intermediate Accounting Theory and Practice II
- ACCT 375 - Income Taxation I
- ACCT 343 - Intermediate Accounting Theory and Practice III
- ACCT 331 - Cost Management
- ACCT 461 - Auditing Theory and Practice
- ACCT 470 - Law of Commercial Transactions

### Business Core Courses

- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

### Advanced Business Core Courses

- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management
- 12 upper-division accounting credits under advisement
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.
- Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## **Economics/Accounting, BA (see Economics Department)**

Economics/Accounting, BA (see Economics Department)

## **Master of Professional Accounting**

## **Professional Accounting, Non-Thesis, MPAcc**

Department of Accounting, College of Business & Economics

For further information contact the Department of Accounting, Western Washington University, 516 High Street, Bellingham, WA 98225, Phone: (360) 650-3202, Email: Michelle.Stach@wwu.edu

## Graduate Faculty

**Chen, Hanmei, PhD**, managerial accounting.  
**Dolar, Burak, PhD**, financial accounting.  
**Drum, Dawna**, PhD, systems accounting.  
**Gilbertson, David L.**, PhD, auditing/financial accounting.  
**Hutton, Marguerite R.**, PhD, taxation.  
**Liu, Zenghui**, PhD, auditing/financial accounting.  
**Sanders, George D.**, PhD, financial/governmental accounting.  
**Senge, Stephen V.**, DBA, financial reporting.  
**Sim, Khim L.**, PhD, managerial accounting.  
**Singleton, William R.**, PhD, taxation.  
**Smith, Steven H.**, PhD, financial accounting.  
**Taylor, Audrey**, PhD, managerial accounting.  
**Warner, Daniel M.**, JD, business law.

Graduate Program Office, Parks Hall 419, 360-650-3898  
 E-mail: Michelle.Stach@wwu.edu; fax: 360-650-4844  
 Program Advisor: Dr. Stephen V. Senge  
 Department of Accounting: Dr. George D. Sanders, Chair

## Accreditation

The College of Business and Economics is accredited by the AACSB International-The Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels.

## Goals

The MPAcc program is a 48-credit graduate degree to be completed in three quarters. It is designed to:

- Provide opportunities for students to improve their expertise in a field that is rapidly becoming more complex.
- Provide students with an opportunity to acquire the knowledge and skills required in Washington for professional licensing as CPAs.
- Help meet the demand in Washington for well-trained professional accountants.

## Admission and Prerequisites

- A bachelor's degree with an accounting emphasis from an AACSB-accredited business school is required for admission to the program.
- A minimum 3.0 GPA (on a 4.0 scale) in the last 90-quarter or 60-semester hours of study.
- A minimum 3.2 GPA (on a 4.0 scale) in upper-division accounting courses.
- Applicants must demonstrate an ability to communicate effectively and to reason analytically, logically, and creatively.
- Students must achieve an acceptable score on the Graduate Management Admissions Test (GMAT). Applicants who are not native English speakers must submit an acceptable TOEFL or IELTS score.

## Application Information

- Official application form to the Graduate School
- Transcripts (from each institution attended).
- GMAT scores and, if applicable, TOEFL or IELTS scores.
- Personal statement, including background and intention.
- Résumé showing work experience.
- Review of application begins on February 15 and continues until spaces are filled.

**To apply for admission, send the application and supporting documents to the Graduate School. Further information is provided in the Graduate School section of this catalog.**

# ACCOUNTING

## Program Requirements (48 credits)

### Core Curriculum

- MPAC 565 - Special Topics in Accounting
- At least 4 credits of MPAC 595 - Accounting Colloquium
- At least 20 credits from the following courses, \*under advisement:  
\*(Course availability may vary from year to year)
  - MPAC 521 - Seminar in Accounting Information Systems
  - MPAC 531 - Accounting Communications
  - MPAC 535 - Seminar in Management Accounting
  - MPAC 541 - Seminar in Advanced Financial Accounting
  - MPAC 543 - Financial Accounting Research & Communication
  - MPAC 545 - Seminar in Accounting Theory
  - MPAC 547 - Seminar in Government and Not-For-Profit Accounting
  - MPAC 551 - Seminar in International Accounting
  - MPAC 561 - Seminar in Professional Auditing
  - MPAC 566 - Seminar in Fraud Examination & Forensic Accounting
  - MPAC 571 - Seminar in Law for Accountants
  - MPAC 575 - Seminar in Taxation
  - MPAC 577 - Tax Research, Planning, and Policy
  - MPAC 581 - Ethics and Accountability
  - MPAC 585 - Sustainability Accounting and Reporting
- Up to 4 credits of MPAC 590 - Internship in Professional Accounting
- At least 20 additional credits of MPAC, MBA, or other courses, chosen under advisement

### Integrated 3+2 BA/MPAcc Option

This option makes it possible for exceptional undergraduate accounting majors to enter the MPAcc program at the beginning of their senior year, and complete both a B.A. in Accounting and a Master of Professional Accounting in at most 5 years of study. Students interested in this program are encouraged to consult with their advisor early in their junior year.

### Eligibility & Admission

Applications are due during the first week of spring quarter, and admission decisions will be made shortly thereafter. To be eligible the student must have, at the time of application:

- Completed at least 110 undergraduate credits with an overall GPA of 3.0 or better.
- Completed at least 16 upper-division accounting credits, including ACCT 342, with a GPA of at least 3.2.
- Demonstrated an ability to communicate effectively, and to reason analytically, logically, and creatively.
- Recommendations from at least two WWU accounting faculty.

This program is highly selective; eligibility does not guarantee admission.

### Requirements for the 3+2 Option:

Candidates are conditionally admitted to the MPAcc at the time of acceptance into the integrated 3+2 program. At the end of the fourth year, conversion to full graduate status is granted by the Graduate School upon the recommendation of the MPAcc committee, provided that the candidate has:

- Been awarded the undergraduate degree.
- Maintained an acceptable GPA in all courses taken.
- Obtained an acceptable score on the GMAT.
- Met all the Graduate School application requirements.

All of the requirements for the MPAcc (listed above) must be fulfilled, except that only 36 graduate credits are required beyond the baccalaureate degree.

### Additional Information

Information on the MPAcc program is available in the College of Business and Economics, Accounting section of this catalog.

## Minor

### Accounting Minor

Department of Accounting, College of Business and Economics

#### 24 credits

#### Introduction

The Department of Accounting's minor is open by special permission to students whose majors would be complemented by an accounting minor and who have completed prerequisites for the courses comprising the minor.

#### Why Consider an Accounting Minor?

While accounting may not be your main field of study, the principles of accounting are useful in many career paths. Accounting is widely considered the language of business, and your understanding of key concepts will equip you in the business world.

#### Contact Information

##### CBE Admissions & Scholarships

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

##### Department Chair

Professor George Sanders  
Parks Hall 451A  
360-650-4811  
George.Sanders@wwu.edu

##### Minor Information:

**Academic Department Manager**  
Michelle Stach  
Parks Hall 451  
360-650-3202  
Michelle.Stach@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

The application process originates with the College office when the student submits an online application form via the College of Business and Economics website, [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe). Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- ACCT 331 - Cost Management
- One course from:
  - ACCT 341 - Intermediate Accounting Theory and Practice I
  - ACCT 375 - Income Taxation I

# ACCOUNTING

- 8 additional credits in accounting under advisement

## Accounting Courses

### ACCT 240 - Financial Accounting

An introduction to the theory and practice of accounting and financial reporting. Topics include the accounting cycle, financial statements and accounting for assets, liabilities, equities, revenues and expenses.

**Credits:** 4

**Grade Mode:** Letter

### ACCT 245 - Managerial Accounting

An introduction to the use of accounting information by managers. Topics include the use of accounting information for planning and control, performance evaluation, decision-making, and the statement of cash flows, along with financial statement analysis.

**Prerequisites & Notes:** ACCT 240

**Credits:** 4

**Grade Mode:** Letter

### ACCT 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ACCT 321 - Accounting Information Systems I

An introduction to the subject of information system's role in accomplishing the objectives of financial accounting, managerial accounting, tax accounting and auditing. Systems covered include manual accounting, computerized accounting, and Internet electronic commerce applications. Additional topics include internal controls, systems analysis, systems design and systems implementation.

**Prerequisites & Notes:** Majors only. ACCT 245, MIS 220 or equivalent skills

**Credits:** 4

**Grade Mode:** Letter

### ACCT 331 - Cost Management

Procedures used for classifying, recording,

summarizing and allocating current, and estimated costs for planning, controlling and reporting purposes.

**Prerequisites & Notes:** Majors only. ACCT 245, DSCI 205, MIS 220 or equivalent skills.

**Credits:** 4

**Grade Mode:** Letter

### ACCT 341 - Intermediate Accounting Theory and Practice I

An in-depth study of accounting theory and practice for students who require more than introductory coverage. Both conceptual and application topics are studied.

**Prerequisites & Notes:** Majors Only. ACCT 245

**Credits:** 4

**Grade Mode:** Letter

### ACCT 342 - Intermediate Accounting Theory and Practice II

A continuation of ACCT 341 covering complex topics in accounting and financial reporting.

**Prerequisites & Notes:** Majors Only. ACCT 341

**Credits:** 4

**Grade Mode:** Letter

### ACCT 343 - Intermediate Accounting Theory and Practice III

A continuation of ACCT 342 covering complex topics in accounting and financial reporting. Special topics, existing and emerging issues in accounting.

**Prerequisites & Notes:** Majors Only. ACCT 342

**Credits:** 4

**Grade Mode:** Letter

### ACCT 375 - Income Taxation I

Taxation of individuals and sole proprietorships. Introduction to tax planning and sources of authority of tax law.

**Prerequisites & Notes:** Majors Only. ACCT 240

**Credits:** 4

**Grade Mode:** Letter

### ACCT 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for



General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ACCT 421 - Accounting Information Systems II**

Principles and techniques of database technology as applied to modern accounting information systems, uses of database technology for transaction processing and analysis. Systems documentation techniques and the auditing of computerized accounting systems. Format will be lecture, discussion, computer presentations and computer lab assignments.

**Prerequisites & Notes:** Majors Only. ACCT 321

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 431 - Topics in Management Accounting**

Focuses on responsibility accounting, performance measurement and evaluation, and budgeting and control in various types of organizations. Additional topics may include quantitative methods in decision making and other current issues in management accounting.

**Prerequisites & Notes:** Majors Only. ACCT 331

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 435 - Seminar in Cost Management**

Provides an in-depth study of cost management systems. Topics include activity-based management, Japanese cost management techniques, and strategic cost management.

**Prerequisites & Notes:** Majors Only. ACCT 331

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 441 - Advanced Accounting Theory and Practice**

An introduction to business combinations and fund accounting. Partnerships, SEC reporting, interim reports and other topics.

**Prerequisites & Notes:** Majors Only. ACCT 343

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 443 - Financial Accounting Research & Communication**

A detailed analysis of Financial Accounting Standards via the FASB Accounting Standards Codification (and proposed changes) for

measuring, recording, and reporting business transactions that underlie the preparation of an enterprise's financial statements and disclosures. Emphasis will be on written and oral assignments that develop communication skills for the accounting profession.

**Prerequisites & Notes:** Majors only. ACCT 343.

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 444 - Financial Statement Presentation and Analysis**

Study of reporting issues from a management perspective. Introduction to the tools and techniques of financial statement analysis. Use of financial statements by external and internal decision makers. Emphasis on the development of communication and computer skills.

**Prerequisites & Notes:** Majors only. ACCT 343.

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 447 - Accounting in Not-For-Profit Organizations**

An examination of accounting and financial reporting in governmental and not-for-profit entities and an introduction to the use of accounting information in the management of these organizations.

**Prerequisites & Notes:** Majors Only. ACCT 343 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 451 - International Accounting**

Analysis of accounting for multinationals; area studies of accounting and financial reporting standards; and an evaluation of the international accounting harmonization effort.

**Prerequisites & Notes:** Majors Only. ACCT 343

**Credits:** 4

**Grade Mode:** Letter

### **ACCT 461 - Auditing Theory and Practice**

A study of the role of auditing and auditors in corporate financial reporting, and the importance of this role to the public. Topics covered include the audit planning process, audit reports, professional standards, and the legal and ethical responsibilities of auditors to their clients, the accounting profession and to the public.

**Prerequisites & Notes:** Majors Only. ACCT 321, ACCT 343

## ACCOUNTING

**Credits:** 4  
**Grade Mode:** Letter

### **ACCT 462 - Advanced Auditing**

In-depth exposure to a variety of aspects of the theory and practice of professional auditing. Topics may include auditing theory and research, economic function of audits, professional standards and malpractice, new auditing techniques and services. Cases, readings, individual research, and discussion.

**Prerequisites & Notes:** Majors Only. ACCT 461  
**Credits:** 4  
**Grade Mode:** Letter

### **ACCT 466 - Seminar in Fraud Examination & Forensic Accounting**

This course examines many different aspects of fraud: what it is and the types of people more likely to commit it, how to recognize the symptoms of fraud, and how to investigate it. As such, the course will focus on topics such as internal control, financial reporting fraud, fraud detection and deterrence.

**Prerequisites & Notes:** Majors only. ACCT 321 and ACCT 343.  
**Credits:** 4  
**Grade Mode:** Letter

### **ACCT 470 - Law of Commercial Transactions**

Legal principles underlying the law of contracts, sales, secured transactions, real property security, bankruptcy and suretyship.

**Prerequisites & Notes:** Majors Only. MGMT 271  
**Credits:** 4  
**Grade Mode:** Letter

### **ACCT 475 - Income Taxation II**

Taxation of corporations and partnerships. Advanced topics in tax planning and compliance.

**Prerequisites & Notes:** Majors Only. ACCT 375  
**Credits:** 4  
**Grade Mode:** Letter

### **ACCT 477 - Tax Research and Planning**

An in-depth look at tax research and tax planning. Students will gain proficiency in tax research and apply this skill to a variety of federal taxation issues and case studies.

**Prerequisites & Notes:** Majors Only. ACCT 375  
**Credits:** 4  
**Grade Mode:** Letter

### **ACCT 484 - Environmental Accounting/Sustainability Reporting**

An in-depth analysis of accounting for the natural environment. Readings, discussion and case analyses cover current issues, such as financial reporting and disclosure, management decision making and evaluation techniques, taxation and the profession's role in environmental issues.

**Prerequisites & Notes:** Majors Only. ACCT 331, ACCT 343, ACCT 375 or concurrent.  
**Credits:** 4  
**Grade Mode:** Letter

### **ACCT 490 - Internship in Accounting**

Practical application of academic curriculum beyond that contained in normal undergraduate course work. Internship may not be substituted for a required or elective accounting course.

**Prerequisites & Notes:** Majors Only. ACCT 341; minimum 2.75 GPA in 300/400-level accounting courses  
**Credits:** 1-2  
**Grade Mode:** S/U

## **Master of Professional Accounting Courses**

### **MPAC 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MPAC 521 - Seminar in Accounting Information Systems**

A seminar designed to study elements of accounting information systems, including technological aspects. The content includes a combination of theory and practical application. Conceptual modeling, implementation of accounting transaction processing systems, enterprise value chains, business processes, documentation, and control requirements are emphasized.

**Prerequisites & Notes:** ACCT 321 or equivalent.  
**Credits:** 4  
**Grade Mode:** Letter

**MPAC 531 - Accounting Communications**

This course will focus on developing skills for communication as a professional accountant in an organizational setting and is intended to enhance the experience of students enrolled in MPAcc 590, Internship in Professional Accounting. This is an online course that includes student-led discussions, team tasks, reflective journaling, and a variety of other individual assignments aimed at enhancing communication skills in a professional accounting setting. Short readings will cover organizational communications research applicable to accounting firms.

**Credits:** 4

**Grade Mode:** Letter

**MPAC 535 - Seminar in Management Accounting**

Using cases, students will gain the analytical skills needed to both implement well designed management systems, and to evaluate the strengths and weaknesses of existing systems. Topics will include budgeting, resource allocation, performance measurement, evaluation and reward, change management, and transfer pricing.

**Prerequisites & Notes:** ACCT 331 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

**MPAC 541 - Seminar in Advanced Financial Accounting**

This course develops accounting skills for business combinations, consolidated financial statements, partnerships, corporate reorganizations, segment reporting, and foreign currency financial statements. Critical thinking, teamwork, and communications skills will be emphasized along with current technology used in accounting practice.

**Prerequisites & Notes:** ACCT 343 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

**MPAC 543 - Financial Accounting Research & Communication**

A detailed analysis of Financial Accounting Standards via the FASB Accounting Standards Codification (and proposed changes) for measuring, recording, and reporting business transactions that underlie the preparation of an enterprise's financial statements and disclosures. Emphasis will be on written and oral assignments that develop communication skills for the accounting profession.

**Prerequisites & Notes:** Graduate (MPAC) status. ACCT 343 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

**MPAC 545 - Seminar in Accounting Theory**

A study of accounting theory underlying current practice. This course is designed to develop awareness of and ability to utilize knowledge including significant historical components, key stakeholders and their issues, political and regulatory processes, and critical perspectives on accounting and its role in society.

**Prerequisites & Notes:** ACCT 343 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

**MPAC 547 - Seminar in Government and Not-For-Profit Accounting**

This course introduces the basics of accounting and financial reporting for governmental and not-for-profit entities. The course also discusses the social, legal, political and regulatory environment of governmental financial reporting and how these factors have influenced nonprofit and governmental accounting.

**Prerequisites & Notes:** Graduate (MPAC) status. ACCT 343 or concurrent or equivalent

**Credits:** 4

**Grade Mode:** Letter

**MPAC 551 - Seminar in International Accounting**

This course explores how various accounting topics and issues are addressed within an international context, including a comparative analysis of accounting measurement, disclosure and financial reporting requirements in different countries within the framework of global harmonization efforts. In addition, the impact of accounting issues on multinational business operations is discussed and students will study a 'non-home' country in depth.

**Prerequisites & Notes:** ACCT 343 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

**MPAC 561 - Seminar in Professional Auditing**

Provides in-depth exposure to a variety of aspects of the theory and practice of professional auditing. Topics may include auditing philosophy, history and research; economic function of audits; professional standards and malpractice; new auditing techniques and services. Activities include cases, readings, individual research and

## ACCOUNTING

discussion.

**Prerequisites & Notes:** ACCT 461 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 565 - Special Topics in Accounting**

This is an advanced course in accounting that examines a broad range of issues that are of current concern to both the accounting profession and users of accounting information. The course content will vary to provide opportunities to study current issues in accounting.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 566 - Seminar in Fraud Examination & Forensic Accounting**

This course examines many different aspects of fraud: what it is and the types of people more likely to commit it, how to recognize the symptoms of fraud, and how to investigate it. As such, the course will focus on topics such as internal control, financial reporting fraud, fraud detection and deterrence.

**Prerequisites & Notes:** Graduate (MPAC) status. ACCT 321 and ACCT 343; or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 571 - Seminar in Law for Accountants**

Using cases, texts, lecture and discussion, students examine legal issues important to accountants, including: administrative law-making; agency, business organizations; negotiable instruments, bank deposits, intellectual property; aspects of real and personal property security, bankruptcy; lobbying and campaign finance regulations; and accountants' professional liability.

**Prerequisites & Notes:** ACCT 470 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 575 - Seminar in Taxation**

Tax from a managerial perspective, with emphasis on the identification and examination of tax problems and potential tax opportunities. Students will examine the choice of different business entities for tax purposes, compensation and succession planning, and tax planning for investments.

**Prerequisites & Notes:** ACCT 375 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 577 - Tax Research, Planning, and Policy**

An in-depth look at tax research and tax planning, including the political and social issues which affect taxation. Students will gain proficiency in tax research and apply this skill to a variety of federal taxation issues and case studies. The use of technology is a vital component of this course, as is communication.

**Prerequisites & Notes:** Graduate (MPAC) status. ACCT 375 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 581 - Ethics and Accountability**

This is a capstone course in the MPAcc program introducing ethical systems used for decision making and public reporting taken from a professional accounting perspective and integrating notions of entity social responsibility with a global business perspective.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 585 - Sustainability Accounting and Reporting**

Through reading several books and examining some Triple Bottom Line (TBL)-related websites in detail, course participants will study the overall themes and examples of TBL offered by various authors and organizations. Our directed conversations will focus on an analysis and synthesis of these themes, the credibility the proposals and attempts, and the general applicability of the TBL concept.

**Prerequisites & Notes:** ACCT 343 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MPAC 590 - Internship in Professional Accounting**

Practical application of academic curriculum beyond that contained in graduate coursework. A one quarter internship under supervision with an approved certified public accounting firm, business entity, not-for-profit organization, or government agency. Repeatable up to 12 credits, including original course. S/U grading.

**Prerequisites & Notes:** Approval of the Internship Coordinator.

**Credits:** 2-12

**Grade Mode:** S/U

### **MPAC 595 - Accounting Colloquium**

Seminar and discussion of various topics, focusing on issues of current concern to the accounting profession. Will include presentations by faculty, students and accounting professionals. Repeatable

up to 10 credits, including original course.

**Prerequisites & Notes:** Graduate (MPAC) status.

**Credits:** 1-2

**Grade Mode:** Letter

# Decision Sciences

## Introduction

The Department of Decision Sciences (DSCI) provides the opportunity for study in two related fields of business administration: Management Information Systems (MIS) and Operations Management (OPS). Additional course work is provided in Quantitative Methods. These fields cover a variety of responsibilities in both public and private organizations. Graduates from the decision sciences department will have completed a broad business program plus a wide range of nonbusiness subjects, reflecting the department's belief that education should prepare students for satisfying achievements in life as well as business.

## Program Objectives

Departmental programs have been designed to prepare students for leadership roles in business and the community. The educational objectives of the department are to:

- Offer innovative undergraduate and graduate curricula that reflect state-of-the-art knowledge in our areas of expertise
- Prepare students with the necessary skills and knowledge for professional careers
- Provide students with opportunities to improve their communication, team, and problem-solving skills to work effectively with different organizations and cultures
- Encourage students to develop critical thinking skills and an appreciation of intellectual inquiry
- Contribute to our disciplines by creating, publishing and presenting significant scholarly research in the individual fields
- Provide professional services to regional, national, and international academic institutions, businesses, professional organizations, and government agencies
- Encourage and support student professional organizations

## Faculty

**CRAIG K. TYRAN** (2001) Chair and Professor. BS, MS, Stanford University; MBA, UCLA Graduate School of Management; PhD, University of Arizona.

**DEEPINDER S. BAJWA** (1999) Professor. BE, University of Mysore; MBA, PhD, Southern Illinois University at Carbondale.

**CHRISTOPHER B. CALIFF** (2015) Assistant Professor. BA, MS, University of Georgia, PhD, Washington State University.

**GERARD M. CAMPBELL** (2014) Associate

Professor. BS, Columbia University; MBA, University of Connecticut; MS, Rensselaer Polytechnic Institute; PhD, Indiana University.

**XIAOFENG CHEN** (2014) Assistant Professor. BS, Nanjing University; MS, PhD, University of Nebraska-Lincoln.

**PETER HAUG** (1986) Professor. BA, State University of New York at Fredonia; MA, University of Maine; MBA, College of William & Mary; MPhil, University of Edinburgh; PhD, University of Washington.

**STELLA HUA** (2002) Associate Professor. BS, Shanghai Jiao Tong University; MBA, Baylor University; PhD, University of Wisconsin-Madison.

**ILHYUNG KIM** (2004) Associate Professor. BS, MS, Seoul National University; MBA, Oregon State University; PhD, University of California, Los Angeles.

**JIEXUN LI** (2016) Assistant Professor. BE, Tsinghua University; MS, Tsinghua University; PhD, University of Arizona.

**J. CHRISTOPHER SANDVIG** (2001) Associate Professor. BS, University of Oregon; MBA, UCLA Graduate School of Management; PhD, University of Washington.

**MARK C. SPRINGER** (1987) Professor. BA, University of Cincinnati; MBA, PhD, Vanderbilt University.

**ZHE GEORGE ZHANG** (2000) Professor. BS, MA, Nankai University; MBA, York University; PhD, University of Waterloo.

## Senior Instructors

**KRAIG K. PENCIL** (1999) Senior Instructor. BA, Occidental College; MBA, Western Washington University.

**LEE E. McCLAIN** (1991) Senior Instructor. BA, MA, University of Missouri-Columbia; MBA, University of Pennsylvania.

**BRIAN L. MORGANS** (2012) Senior Instructor. BS, University of Washington; MBA, Western Washington University.

**SIPING (SUE) SU** (2012) Senior Instructor. BA, Nankai University, Tianjin, China; MS, University of Waterloo, Ontario, Canada.

## Departmental Mission

The mission of the Department of Decision Sciences is to advance and disseminate knowledge in management information systems, manufacturing and supply chain management, and quantitative methods. The DSCI department provides high-quality educational programs, publishes theoretical and applied research, and serves university, professional, and community organizations.

## Declaration Process

See the College of Business and Economics introductory section in this catalog for declaration of pre-major and major requirements and procedures. Applicants who have at least a 2.5 or higher cumulative GPA in all college-level course work including previous institutions and a minimum of 2.3 cumulative GPA in all courses taken within the College of Business and Economics (except Manufacturing and Supply Chain Management majors) will be assured of admission if space is available in the department program of choice.

## Other Departmental Information

### The Curriculum

Development of the department's curriculum has been guided by the standards of the AACSB International-the Association to Advance Collegiate Schools of Business. Students normally devote most of the freshman and sophomore years of study to completion of the General University Requirements (GURs) and the business administration major foundation courses. Several foundation courses satisfy GURs, and careful planning can save time for additional elective course work. Electives that emphasize oral and written communication skills are particularly recommended.

The junior and senior years are devoted primarily to upper-division core requirements and elective course work. The Department of Decision Sciences offers two degrees: a Bachelor of Arts in Business Administration and a Bachelor of Science in Manufacturing and Supply Chain Management. Within the BA in Business Administration, students may choose to concentrate their major electives in management information systems or operations management. Students who wish to complete a concentration must pay close attention to class scheduling because of prerequisites and limited offerings of some courses.

### Certificate in Website Management

Students concentrating in MIS may also be interested in earning a Certificate in Website Management through WWU's Internet Studies Center. Two of the six courses required for the certificate may be used as MIS concentration elective courses. More information about the certificate can be found on the ISC website, [yorktown.cbe.wwwu.edu/ISC/](http://yorktown.cbe.wwwu.edu/ISC/).

## Business Applications Software

The use of personal computer systems to assist in data management, analysis and reporting of results is widespread in the curriculum of the Department of Decision Sciences. Students are expected to have some proficiency in word processing, spreadsheet and database software at the time they enter upper-division decision sciences classes. This proficiency can be gained through several means, including formal class work at a university or community college, work experience, or commercially offered classes. Proficiency can also be demonstrated by passing an exam which is offered for this purpose each quarter. Students who have not otherwise gained these skills are expected to register in MIS 220 prior to their registration in DSCI 305 or MIS 320.

## Communications Requirements

See the College of Business and Economics introductory section of this catalog.

## Student Advising

For answers to routine questions concerning preparation and progress through the major, students should consult the **Planning Guide** for the Department of Decision Sciences, available in the Academic Advising Center (OM 380) or online through the CBE website: [cbe.wwwu.edu/](http://cbe.wwwu.edu/). Non-routine questions should be directed to the academic department manager. Questions concerning individual areas of study should be directed to faculty who teach in that area. After the declaration of a major, a student will be assigned a faculty adviser with whom the student must consult concerning mandatory and elective courses in the chosen major and concentration. The faculty adviser may also be a source of information concerning career objectives and opportunities.

## Enrollment Priorities

Because of high student demand for many business administration program courses, the department must give enrollment priority to students for whom these courses are requirements rather than electives. Priority is given to majors in CBE and other declared majors for whom the classes are required.

# Bachelor of Arts

## Business Administration — Management Information Systems Concentration, BA

Department of Decision Sciences, College of Business and Economics

**88-90 credits**

### Introduction

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology
3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

### Why Consider a Management Information System (MIS) Concentration in the Business Administration Major?

MIS majors learn how information technology can contribute to an organization and how to develop and apply information technology-based business solutions. The strength of an MIS major lies in his/her ability to combine an understanding of business with the knowledge of information systems and technology to help organization compete more successfully or streamline current operations. MIS professionals are involved in growth technologies, such as decision support, e-business, database development, client server systems, and development of web-based technologies for electronic commerce.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Craig K. Tyran Parks Hall 343A 360-650-2207 Craig.Tyran@wwu.edu	<b>Major Information: Academic Department Manager</b> Talisa Cook Parks Hall 343 360-650-3902 Talisa.Cook@wwu.edu

Sample Careers
Systems Analyst   Computer Systems Manager   Software Test Analyst   Administrator   Database Administrator   Software Developer   Business Analyst   Website Developer
Major/Career Resources



[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wvu.edu/apply-cbe](http://cbe.wvu.edu/apply-cbe).

**Pre-major:** Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above.

**Full major:** For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems

#### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment

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- ❑ MIS 320 - Principles of Management Information Systems
- ❑ MKTG 380 - Principles of Marketing
- ❑ OPS 360 - Operations Management

### Advanced Core Courses

- ❑ MGMT 495 - Strategic Management

### MIS Concentration Courses

- ❑ MIS 321 - Systems Analysis and Design
  - ❑ MIS 322 - Business Applications Development
  - ❑ MIS 421 - Business Database Development
  - ❑ MIS 495 - Corporate Information Systems Management
  - ❑ One course from:
    - MGMT 313 - Teamwork Basics
    - MIS 492 - Systems Implementation Project
    - OPS 461 - Project Management
  - ❑ Select 8 credits from:
    - ACCT 421 - Accounting Information Systems II
    - OPS 461 - Project Management
    - Upper division MIS courses
    - Other upper-division courses (including computer science) may be possible under advisement
  - ❑ Familiarity with an additional programming language highly recommended
  - ❑ Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfil the CF and WP requirements.
  - ❑ Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.
- NOTE: All MIS students must take MIS 322 - CSCI 140 is not an acceptable substitute. Students should talk to their advisors about other CSCI courses that may be appropriate as a second programming language.

## Business Administration — Operations Management Concentration, BA

Department of Decision Sciences, College of Business and Economics

### 88-90 credits

#### Introduction

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics  Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents  Deliver a professional quality presentation supported by appropriate technology

3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

**Why Consider an Operations Management (OPS) Concentration in the Business Administration Major?**

Operations management is the direction and control of the processes within an organization. Operations managers are concerned with each step in providing a service or product – from acquisition of the raw materials and component parts to delivery to the customer. They determine what equipment, labor, tools, facilities, materials, energy, and information are required, how these can best be obtained, and how they are used to satisfy the requirements of the market place. Managers are also responsible for critical activities such as quality management and control, capacity planning, materials management, purchasing, and scheduling.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Craig K. Tyran Parks Hall 343A 360-650-2207 Craig.Tyran@wwu.edu	<b>Major Information: Academic Department Manager</b> Talisa Cook Parks Hall 343 360-650-3902 Talisa.Cook@wwu.edu

Sample Careers
Production Supervisor   Quality Control Specialist   Inventory Control Specialist   Administrator   Operations Manager   Buyer   Supply Chain Consultant   Logistics Manager
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

**How to Declare (Admission and Declaration Process):**

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Pre-major:** Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above.

**Full major:** For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

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Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

#### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

#### Advanced Core Courses

- MGMT 495 - Strategic Management
- Or
- MGMT 491 - Small Business Entrepreneurship (and)
- MGMT 492 - Entrepreneurial Problems
- \*These two courses would substitute for MGMT 495 and one of the courses under advisement.

#### OPS Management Concentration Courses

- MGMT 313 - Teamwork Basics
- OPS 460 - Designing and Improving Lean Operations
- OPS 461 - Project Management
- OPS 468 - Manufacturing and Supply Chain Strategy
- Two courses from:
  - OPS 462 - Management Science with Spreadsheets
  - OPS 463 - Enterprise Resource Planning Systems
  - OPS 465 - Quality Management
  - OPS 466 - Supply Chain Management
  - OPS 467 - Logistics Modeling and Analysis
- One course under advisement
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and

elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

□ Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## Bachelor of Science

### Manufacturing and Supply Chain Management, BS

Department of Decision Sciences, College of Business and Economics

**128-131 credits**

#### Introduction

The Department of Decision Sciences' unique Manufacturing and Supply Chain Management Bachelor of Science program is the product of a cooperative effort between faculty and industry which has resulted in a curriculum that combines leadership, technology, and operations management. Students majoring in the program receive an integrated professional education. The Operations Management component develops knowledge on process design and analysis, materials planning and control systems, quality improvement, and strategic decisions. The Business component provides an understanding of business fundamentals as well as current business trends and practices. The Engineering Technology segment provides students with a solid grounding in engineering and manufacturing fundamentals, including computer-aided design with materials sciences. Finally, the work experience component provides a real-world work experience that directly relates to students' education.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology
3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

#### Why Consider a Manufacturing and Supply Chain Management Major?

The Manufacturing and Supply Chain Management program is designed and highly influenced by the businesses that most need the services of well prepared students to meet the changing needs of the marketplace. The active involvement of regional industry through our board of advisors has resulted in nearly 100% placement of our graduates. Industries' generosity through scholarships and internships coupled with a curriculum taught by dedicated and accomplished faculty is a winning combination. Graduates find challenging and rewarding careers that are in high demand.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419	<b>Department Chair</b> Craig K. Tyrان Parks Hall 343A	<b>Major Information: Academic Department Manager</b> Talisa Cook Parks Hall 343

## DECISION SCIENCES

360-650-3896  
cbe@wwu.edu

### Program Director

Peter Haug  
Parks Hall 349  
360-650-4807  
Peter.Haug@wwu.edu

360-650-2207  
Craig.Tyran@wwu.edu

### Manager

Ann Renee (A.R.) Mann  
Parks Hall 206A  
360-650-7224  
AnnRenee.Mann@wwu.edu

360-650-3902  
Talisa.Cook@wwu.edu

### Sample Careers

Transportation Manager | Buyer | Systems Manager | Project Manager | Production Supervisor | Inventory Manager | Quality Engineer | Industrial Engineer | Business Systems Analyst | Planner

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major or full major, complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits, undergone an interview with program faculty, and earned a GPA of 3.0 in the foundation courses they have completed (to date) will be granted pre-major status.

**Full major:** Students who have completed all their foundation courses (including Chemistry and Physics), undergone an interview with program faculty, and have a minimum GPA of 3.0 will be granted full major status.

**Advising tips:** 1) Complete MATH 157, DSCI 205, ACCT 240 and ACCT 245 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: [cbe.wwu.edu/mis-220-test-out](http://cbe.wwu.edu/mis-220-test-out); 3) Meet with your faculty advisor (assigned following admission to the major).

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- CHEM 121 - General Chemistry I
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)
- PHYS 114 - Principles of Physics I

### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems

- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

### Advanced Core Courses

- One of the following sets:
    - MGMT 495 - Strategic Management
    - Or
    - MGMT 491 - Small Business Entrepreneurship (and)
    - MGMT 492 - Entrepreneurial Problems \*
- These two courses would substitute for MGMT 495 and one of the courses under advisement.

### MSCM Program Courses

- ENGR 104 - Introduction to Engineering and Design
- ENGR 170 - Introduction to Materials Science and Engineering
- MFGE 261 - Introduction to Computer-Aided Design
- MGMT 313 - Teamwork Basics
- OPS 460 - Designing and Improving Lean Operations
- OPS 461 - Project Management
- OPS 468 - Manufacturing and Supply Chain Strategy
- Two courses from:
  - OPS 462 - Management Science with Spreadsheets
  - OPS 463 - Enterprise Resource Planning Systems
  - OPS 465 - Quality Management
  - OPS 466 - Supply Chain Management
  - OPS 467 - Logistics Modeling and Analysis
- One course from:
  - ACCT 331 - Cost Management
  - DSCI 407 - Predictive Analytics for Business
  - MFGE 231 - Introduction to Metal Manufacturing Processes
  - MGMT 401 - Conflict Management and Negotiations
  - MIS 321 - Systems Analysis and Design
  - OPS 469 - Seminar in Manufacturing and Supply Chain Management
- Two practica (OPS 464 - 8 credits)
- Three courses under advisement (11-12 credits)
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.
- Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## Minor

### Business Analytics Minor

Department of Decision Sciences, College of Business and Economics

**20 credits (not including prereqs)**

#### Introduction

This program is designed to provide students with a solid foundation in business analytics. Specifically, the program will focus on the three fundamental areas in business analytics methods: descriptive, predictive, and

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prescriptive analytics. In addition, students will have an opportunity to gain exposure to application areas of analytics in business and economics.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Craig K. Tyran Parks Hall 343A 360-650-2207 Craig.Tyran@wwu.edu	<b>Minor Information: Academic Department Manager</b> Talisa Cook Parks Hall 343 360-650-3902 Talisa.Cook@wwu.edu

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Application to the program is open to students who have already been accepted as a major into the College of Business and Economics and are in good academic standing as defined by the retention standards for the College of Business and Economics. Students who meet the application requirements will be considered for admission if space is available in the minor program.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

Required courses (Three 4-credit courses):

The following three courses are required (12 credits in total):

- MIS 422 - Business Intelligence and Analytics
- DSCI 407 - Predictive Analytics for Business
- OPS 462 - Management Science with Spreadsheets

Elective courses (Two 4-credit courses):

Students may choose two elective courses from the following list, or others under advisement:

- ECON 375 - Introduction to Econometrics
- ECON 475 - Econometrics
- MIS 431 - Advanced Business Database Systems
- MKTG 381 - Fundamentals of Marketing Research (co-requisite with MKTG 382)
- MKTG 476 - Digital Marketing
- OPS 467 - Logistics Modeling and Analysis

## Manufacturing and Supply Chain Management Minor

Department of Decision Sciences, College of Business and Economics

**28 credits**

### Introduction

This minor is designed for students who want to add a manufacturing and supply chain management dimension to a major in another functional area, either in the College of Business and Economics or in one of the other majors at Western Washington University. This minor is available to all students, except those concentrating in Operations Management. The Manufacturing and Supply Chain Management Minor develops knowledge on process design and analysis, materials planning and control systems, quality improvement, and



supply chain management. This Minor offers a comprehensive foundation in operations management and business concepts and techniques.

### Why Consider a Manufacturing and Supply Chain Management Minor?

The Manufacturing and Supply Chain Management Minor is designed and highly influenced by businesses that most need the services of students educated in manufacturing and supply chain concepts to meet the changing professional needs and talent required in the marketplace. The active involvement of regional industry executives through our Advisory Board combined with a comprehensive curriculum taught by dedicated faculty offers a unique and excellent minor to complement any major at Western Washington University. Graduates find challenging and rewarding careers that are in high demand.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Minor Information:</b>
Dean's Office	Craig K. Tyran	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 343A	Talisa Cook
360-650-3896	360-650-2207	Parks Hall 343
cbe@wwu.edu	Craig.Tyran@wwu.edu	360-650-3902
		Talisa.Cook@wwu.edu

**Sample Careers**  
 Supply Chain Analyst | Lean Specialist | Buyer/Planner | Systems Manager | Project Manager | Production Supervisor | Inventory Manager | Quality Engineer | Industrial Engineer | Transportation Manager | Business Systems Analyst

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The application process originates with the College office when the student submits an online application from via the College of Business and Economics website, [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe). Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- MGMT 311 - Introduction to Management and Organizational Behavior
- OPS 460 - Designing and Improving Lean Operations
- OPS 463 - Enterprise Resource Planning Systems
- One course from:
  - MFGE 341 - Quality Assurance
  - OPS 360 - Operations Management (including prerequisites)
- Three courses from:
  - MGMT 313 - Teamwork Basics
  - OPS 461 - Project Management
  - OPS 462 - Management Science with Spreadsheets
  - OPS 465 - Quality Management
  - OPS 466 - Supply Chain Management
  - OPS 467 - Logistics Modeling and Analysis
  - OPS 468 - Manufacturing and Supply Chain Strategy

## Decision Sciences Courses

### DSCI 205 - Business Statistics

Statistical methods used in business research, analysis and decision making; preparation and presentation of data, frequency distributions, measures of central tendency and dispersion, statistical inference, regression and correlation.

**Prerequisites & Notes:** MATH 156 or MATH 114 or MATH 115 or MATH 118 or equivalent or higher.

**Credits:** 4

**Grade Mode:** Letter

### DSCI 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### DSCI 305 - Applied Business Statistics

Applications of business statistics to research, analysis, and decision making in business. Regression, correlation, analysis of variance, and nonparametric tests, with emphasis on the use of business-oriented computer statistical packages.

**Prerequisites & Notes:** MATH 157 or MATH 124 or MATH 128; and DSCI 205.

**Credits:** 4

**Grade Mode:** Letter

### DSCI 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### DSCI 405 - Simulation Models for Decision Making

Introduction to building computer-based simulation models for business decision making. Data

collection and input analysis, model building of both Monte Carlo and discrete event simulations, output analysis and validation, and experimental design. Development of computer models to solve complex business problems in MIS, operations, finance, or marketing.

**Prerequisites & Notes:** DSCI 305 or equiv; C- or better

**Credits:** 4

**Grade Mode:** Letter

### DSCI 407 - Predictive Analytics for Business

Predictive analytics relates to extracting patterns, associations, and trends from data (commonly known as 'data mining'). This course covers two main areas in predictive analytics: methods of regression for predicting quantitative variables and methods of classification for predicting qualitative variables. It also covers some multivariate statistical methods such as principal component analysis, cluster analysis, and association rules. This course aims to provide a theoretical and practical overview of recently-developed methods such as generalized additive models, bagging and boosting, shrinkage methods, support vector machines, and resampling methods as well as classical statistical learning methods.

**Prerequisites & Notes:** DSCI 305.

**Credits:** 4

**Grade Mode:** Letter

### DSCI 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## Management Information Systems Courses

### MIS 220 - Introduction to Business Computer Systems

Introduction to use of commercial software packages for business applications, including spreadsheet analysis, word processing, and communications. S/U grading.

**Prerequisites & Notes:** Pre-major, major or minor in business; or pre-major or major in

economics.

**Credits:** 2

**Grade Mode:** S/U

### **MIS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MIS 304 - Introduction to Web Site Development**

Covers basic Web site design, navigation, and construction. Topics include HTML, JavaScript, page layout, site navigation, cascading style sheets, server-side includes, designing search engines, and site testing.

**Prerequisites & Notes:** MIS 320, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 313 - Computer Hardware and Operating Systems**

Understand the hardware components commonly found in networked PC work stations and servers and the operating systems that control them. Diagnose common hardware problems. Install or replace PC components. Install and configure PC operating systems. Diagnose and troubleshoot common OS problems. Manage system resources, including memory, directories and files. Configure network and Internet connectivity.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 314 - Fundamentals of Web Site Development and Management**

Introduction to server-side programming. Topics include PHP, MySQL, reading and writing to databases, database normalization, structured query language (SQL), data management, security, maintenance management and web usability. Each student constructs an interactive, database-driven web site.

**Prerequisites & Notes:** CSC1 202 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MIS 320 - Principles of Management Information Systems**

Describes the role of MIS in management, including current professional practices and methodologies. Includes presentation of systems theory, decision theory, organizational models, types of MIS, planning and MIS development.

**Prerequisites & Notes:** MIS 220 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **MIS 321 - Systems Analysis and Design**

Use management information systems techniques to solve managerial and organizational problems of limited complexity. Includes solving formal analytic problems and implementing solutions using MIS development techniques. Includes supervised structured laboratory exercises.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 322 - Business Applications Development**

Business application development using an object-oriented language. Design of user interfaces and integration with other development platforms such as spreadsheets and databases.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321; pre/coreq: MIS 321; C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 323 - Telecommunications**

Analysis and design of telecommunications systems, including those on the Internet. Topics include network design and management, telecommunications concepts and management, and network and telecommunications tools.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 324 - Intermediate Web Site Development and Management**

Web development using ASP.NET, C#, Visual Web Developer and Sql Server Express. Topics include: data management, web services, object-oriented programming, security, reusability, scalability and reliability. Students refine their skills by constructing a database driven web site.

## DECISION SCIENCES

**Prerequisites & Notes:** MIS 314 or MIS 322; instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **MIS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MIS 417 - Advanced Business Applications Development**

Advanced topics in Management Information Systems: Database Systems. Designed for CBE students in majors and concentrations other than Management Information Systems. Overview of database use in modern business organizations. Alternative data models and normalization of data. Database design methodologies. Development of a database application using commercial software in microcomputer environment. Repeatable up to a maximum of 8 credits with different topics.

**Prerequisites & Notes:** MIS 320 or ACCT 321, or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **MIS 421 - Business Database Development**

Overview of database use in modern business organizations. Alternative data models and normalization of data. Database design methodologies. Development of a database application using commercial software in microcomputer environment.

**Prerequisites & Notes:** Majors Only. MIS 321

**Credits:** 4

**Grade Mode:** Letter

### **MIS 422 - Business Intelligence and Analytics**

Business intelligence and analytics is a broad category of applications and technologies for gathering, storing, analyzing, visualizing, and providing access to data to help enterprise users make better business decisions. The course will include both conceptual and skill components related to business analytics and visualization, including projects using appropriate software platforms.

**Prerequisites & Notes:** Majors only. MIS 320 or ACCT 321.

**Credits:** 4

**Grade Mode:** Letter

### **MIS 423 - Network Administration**

Theory and principles, design, implementation, and management of local area network systems, including predominant networking products and technologies.

**Prerequisites & Notes:** Majors Only. MIS 321 or MIS 323, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 424 - E-Commerce Systems Management**

This course covers both the theories and tools needed to build and manage e-commerce sites. Specific topics include e-commerce business models, marketing, security, hosting options, secure-transactions, web server installation and configuration, web services and interfacing with legacy systems.

**Prerequisites & Notes:** MIS 324, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 431 - Advanced Business Database Systems**

Design, development, implementation and administration of server-based database management systems. Database queries from client, administrative, and Web-based systems. Instruction in both theory and practice.

**Prerequisites & Notes:** Majors Only. MIS 322, MIS 421, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 432 - Expert Systems in Business**

Use of artificial intelligence concepts in the development of systems for expert decision making, with application to business problems. Review and use of selected commercial expert systems software packages.

**Prerequisites & Notes:** Majors Only. MIS 321 or ACCT 321, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 491 - Practicum in Management Information Systems**

Information systems related to employment,

research or special project experience. Emphasis on applying information systems principles and techniques in an academically guided setting. Minimum requirements include a written proposal, journal, and a comprehensive final report. Repeatable to a maximum of 12 credits, only four of which may be applied to the MIS concentration.

**Prerequisites & Notes:** Majors Only. MIS 321, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **MIS 492 - Systems Implementation Project**

Solve an information system problem using project management and IS methodologies. Apply project management techniques in a group project environment. Develop systems documentation, implement system, and present completed project report.

**Prerequisites & Notes:** Majors Only. MIS 322 or MIS 421 or MIS 422 or MIS 432, C- or better, and permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **MIS 495 - Corporate Information Systems Management**

Case study of the current and potential applications of information technology to enhance the competitive posture of the corporation. Uses of information technology throughout the organization; management and control of the information technology function.

**Prerequisites & Notes:** Majors Only. MIS 321; pre/corequisite: one 400-level MIS elective; C- or better

**Credits:** 4

**Grade Mode:** Letter

## **Operations Management Courses**

### **OPS 360 - Operations Management**

Examines the concepts for designing, planning and improving manufacturing and service organizations. Topics include enterprise resource planning, facility layout, forecasting, queuing models, inventory management, lean manufacturing, total quality control, and project management.

**Prerequisites & Notes:** DSCI 205, ACCT 245, C- or better; spreadsheet competency

**Credits:** 4

**Grade Mode:** Letter

### **OPS 367 - Management of Service Operations**

Concepts and techniques for designing, planning and controlling service operations. Topics include service site location, service facilities design, managing capacity and demand in service operations, work force scheduling, the queuing phenomenon, and the impact of new technology on service operations.

**Prerequisites & Notes:** Majors Only. OPS 360, C- or better

**Credits:** 4

**Grade Mode:** Letter

### **OPS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **OPS 417 - Managing Supply Chain, China**

Concepts and techniques for designing, planning and controlling service operations. Topics include service site location, service facilities design, managing capacity and demand in service operations, work force scheduling, the queuing phenomenon, and the impact of new technology on service operations.

**Prerequisites & Notes:** junior or senior standing

**Credits:** 4

**Grade Mode:** Letter

### **OPS 460 - Designing and Improving Lean Operations**

Examines the design and analysis of lean manufacturing systems. Topics include principles of lean enterprises, kaizen practices, visual management, standard work, current and future state value stream mapping, creating continuous flow, cellular manufacturing, and process and capacity analysis.

**Prerequisites & Notes:** OPS 360 or MFGE 341; major restricted.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 461 - Project Management**

## DECISION SCIENCES

Examines the organization, planning, and controlling of projects and provides practical knowledge on managing project scope, schedule and resources. Topics include project life cycle, work breakdown structure and Gantt charts, network diagrams, scheduling techniques, and resource allocation decisions. Concepts are applied through team projects and tutorials using project management software.

**Prerequisites & Notes:** OPS 360 or MGFE 341; major restricted.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 462 - Management Science with Spreadsheets**

Covers the development of optimization and simulation models using Microsoft Excel for the solution of business problems. Topics include advanced spreadsheet use; linear, integer, and non-linear programming; and the simulation of stochastic systems. Applications in operations, finance, and marketing are reviewed.

**Prerequisites & Notes:** OPS 360 and MIS 320.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 463 - Enterprise Resource Planning Systems**

Examines the principles and techniques for planning and managing resource usage across the business enterprise. Topics include business process integration, inventory management, master scheduling, and material and capacity planning. Concepts are applied through the use of current enterprise resource planning software.

**Prerequisites & Notes:** OPS 360 or MFGE 341; major restricted.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 464 - Manufacturing and Supply Chain Management Practicum**

Manufacturing or supply chain management-related employment, research or special project experience. Emphasis on applying manufacturing and supply chain management principles in an academically guided setting. Minimum requirements include a written proposal, a work log, and a comprehensive final written report. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** OPS 360 and permission of instructor; first-time enrollment restricted to manufacturing and supply chain management students with foundation or full major status;

second-time enrollment restricted to manufacturing and supply chain management students with full major status.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 465 - Quality Management**

Examines the principles and techniques for managing and improving quality in an organization. Topics include incoming material control, statistical process control, and process improvement.

**Prerequisites & Notes:** OPS 360 or MFGE 341; major restricted.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 466 - Supply Chain Management**

Examines the principles, techniques, and practices for the design and management of integrated supply chain operations. Investigates supply chain strategy, distribution, facility location decisions, purchasing, and information systems for managing supply chain activities.

**Prerequisites & Notes:** OPS 360 or MFGE 341; major restricted.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 467 - Logistics Modeling and Analysis**

This course will cover a variety of logistics-related issues pertaining to the design and operation of supply chains, including appropriate modeling tools for their analysis. Emphasis will be on the application and development of mathematical modeling techniques for the analysis of issues such as: multi-stage network design, vehicle routing and scheduling, cycle and safety inventories, and multi-echelon inventory control. Other related topics include supply chain information technology and visualizing supply chain data and metrics.

**Prerequisites & Notes:** OPS 360.

**Credits:** 4

**Grade Mode:** Letter

### **OPS 468 - Manufacturing and Supply Chain Strategy**

Reviews manufacturing and supply chain management principles and techniques and examines issues in global manufacturing operations. Topics include supply chain strategy, facility network design, logistics, forecasting, aggregate planning, lean manufacturing principles, and global operations.

**Prerequisites & Notes:** OPS 360 or MFGE 341;  
major restricted.

**Credits:** 4

**Grade Mode:** Letter

**OPS 469 - Seminar in Manufacturing and  
Supply Chain Management**

Operations management theory and concepts  
applied to current manufacturing and supply chain  
problems.

**Prerequisites & Notes:** Majors Only. OPS 460,  
OPS 463, OPS 464 and permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

# Economics

## Introduction

In a world without scarcity, economics as a field of study would be unnecessary. The most challenging task of economics is the study of how to best use resources in the satisfaction of human wants. Today, more than ever, the problems agitating society are predominantly economic. The problems of inequality, discrimination, pollution, energy, growth and stagnation are heavily economic, as are their solutions. Whether as intelligent citizens or as professional economists, we need the perspective and analysis of economics to understand and deal with the realities of life in the 21st century.

With appropriate preparation, particularly in the areas of economic theory, statistical methods and computer-assisted data analysis, the career opportunities for economists are diverse. Economists are most typically employed at all levels of government, in banking and financial institutions, other business firms, labor organizations, and as researchers and teachers in the educational system. One of the most dynamic career areas for economists has been in business. Business economists are typically involved in planning and forecasting, production and market analysis, pricing, and government policy analysis. While various employment opportunities are available to the university graduate with a baccalaureate degree, the person who wishes to pursue a high-powered career as a professional economist should plan to do some graduate study.

## Information

The department's faculty and staff invite questions about the program and career opportunities for economics majors. Interested persons are invited to visit the department office in Parks Hall 315 or to telephone 360-650-3910. Written inquiries should be directed to the Department of Economics, Western Washington University, Bellingham, WA 98225-9074. E-mail: [Econ@wwu.edu](mailto:Econ@wwu.edu). Website: [cbe.wwu.edu/econ](http://cbe.wwu.edu/econ).

## Faculty

**STEVEN E. HENSON** (1985) Chair and Professor. BA, California State University; MS, PhD, University of Oregon.

**REID DORSEY-PALMATEER** (2015) Assistant Professor. BA, Pomona College; MA, PhD, University of Michigan.

**BRANDON DUPONT** (2006) Associate Professor. BA, McNeese State University; MA, University of Iowa; PhD, University of Kansas.

**YVONNE DURHAM** (2000). Professor. BA, University of Wyoming; MA, PhD, University of Arizona.

**MOHEB A. GHALI** (1993) Professor. BCom, Cairo University; MA, University of California; PhD, University of Washington.

**STEVEN GLOBERMAN** (1994) Kaiser Professor of International Business and Director of the Center for International Business. BA, Brooklyn College; MA, University of California-Los Angeles; PhD, New York University.

**L. HART HODGES** (2000) Associate Professor and Director of the Center for Economic and Business Research. BA, Williams College; MEM, Duke University; PhD, University of Washington.

**SHAWN KNABB** (2005) Associate Professor. BA, Miami University; MA, PhD, University of California-Santa Barbara.

**JOHN KRIEG** (2000). Professor and Director of the Office of Survey Research. BA, Northwestern University; MA, PhD, University of Oregon.

**DENNIS R. MURPHY** (1979) Professor. BA, MA, Western Washington University; PhD, Indiana University.

**DAVID M. NELSON** (1977) Professor. BA, Whitworth College; MA, PhD, University of Oregon.

**JASON A. QUERY** (2016) Assistant Professor. BA, BBA, Gonzaga University; MPA, University of Texas-Austin; MS, PhD, University of Oregon.

**MATTHEW R. ROELOFS** (1997) Professor. BA, Calvin College; MS, PhD, Purdue University.

**SHARON SHEWMAKE** (2013) Assistant Professor. BA, Duke University; PhD, University of California-Davis.

**ANCA-IOANA SIRBU** (2014) Assistant Professor. BS, MS, Bucharest University of Economic Studies; MA, University of Southern California; PhD, University of California-Riverside.

**OZAN SULA** (2006) Associate Professor. BA, Marmara University; MA, PhD, Claremont Graduate University.

**PHILIP THOMPSON** (2009) Associate Professor. BA, Kent State University; PhD, University of Arizona.

**ADAM C. WRIGHT** (2016) Assistant Professor. BS, University of Richmond; MEd, Arizona State University; MA, PhD, University of California-Santa Barbara.

## Departmental Mission

The mission of the department is to provide students with an understanding of economic concepts and the functioning of the economy, and to equip them with the ability to apply economic analysis in problem solving. The department strives to provide a major program which gives students rigorous training in both economic theory and applications. The department plays an integral role in offering courses that are a component of Western's General University Requirements and that are part of other undergraduate and graduate



programs in the college and in the University. The department views the conduct of research in economics, and applied research in particular, to be an integral part of its instructional mission. In addition, the department strives to serve both the profession and the community and to help raise the level of economic awareness among the public at large.

### **Declaration Process**

Completion of the CBE Foundation courses is not required to declare a major in economics, except for the economics-accounting combined major. In order to declare a major in economics, students must have achieved a 2.50 cumulative college GPA (including transfer work). Students planning to major in economics should declare their major as early as possible, preferably during their first year at Western. Early declaration is costless and in no way restricts the student's options for changing plans later, but it provides many benefits. Advantages include faculty advising, and protection against possible future catalog revisions that change degree requirements. Declared majors are also eligible for departmental scholarships and other awards. Transfer students should contact the department prior to registering to be certain that they enter the course sequence correctly with the appropriate course equivalents from other institutions.

### **Other Departmental Information**

#### **The Curricula**

The economics program at Western provides several options under the Bachelor of Arts degree.

The economics major requires a foundation in economic theory and quantitative skills and provides opportunities for pursuing in depth a number of important areas within economics, most notably financial, environmental, and resource economics.

## **Bachelor of Arts**

### **Economics, BA**

Department of Economics, College of Business and Economics

#### **66-69 credits**

#### **Introduction**

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications.

### **Communications Requirements**

In addition to the university's Writing Proficiency requirement, all Economics/Accounting and Financial Economics majors must complete one Communications Focus (CF) course prior to graduation. All other economics majors may take either a Communication Focus – Economics (CF-E) course offered by the Economics Department, or a CF course offered by any other department within the College of Business and Economics. CF and CF-E courses are designed to help students gain proficiency in delivering a professional-quality presentation. Presentations may be done individually or in teams. In the latter case, each student must deliver a portion of the team presentation so that individual assessment is possible. Consult the online Timetable of Classes for the specific course sections that fulfill these requirements.

### **Combined majors**

A combined major is available as an option to students whose educational or professional interests may best be furthered by an integrated curriculum from two disciplines. A combined major may be fulfilled by the completion of requirements stipulated by both the Economics Department and a department with which Economics has established arrangements. A plan of study must be approved by both departments for completion of the major. Combined majors already exist with accounting, environmental studies, mathematics, philosophy and political science, social studies, and finance. Students are encouraged to explore the possibility of combining economics with other disciplines.

Students must consult with an advisor prior to the selection of a major option or the selection of elective credits in other departments of the College of Business and Economics (CBE) to be included as part of the economics major.

# ECONOMICS

## Why Consider an Economics Major?

A degree in Economics can be the gateway to many careers. Professional economists are employed as advisors and researchers in both business and government and as teachers and researchers in academic institutions. Employment as an Economist generally requires the completion of graduate studies beyond the bachelor's degree. Western's graduates in Economics hold a variety of jobs in business and teaching. In addition, many of Economics graduates have had a high success rate for admissions to professional schools in law and business.

### Contact Information

#### **CBE Admissions & Scholarships**

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

#### **Department Chair**

Steve Henson  
Parks Hall 315A  
360-650-4843  
Steve.Henson@wwu.edu

#### **Major Information:**

#### **Academic Department Manager**

Diane Brearley  
Parks Hall 315  
360-650-3910  
Diane.Brearley@wwu.edu  
Econ@wwu.edu

### Sample Careers

Actuary/Banking | Financial Planner/Analyst | Urban/Regional Planner | Economic Researcher | Corporate Attorney | Financial Economist | Real Estate | Business Management | Insurance Consultant

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to declare (Admission and Declaration Process):

Students planning to major in Economics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare a major in economics.

Admission to programs in the College of Business and Economics (CBE) is selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics major, a student must meet the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Students apply for admission to the major by completing the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

Advising tips: 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information; [cbe.wwu.edu/mis-220-test-out](http://cbe.wwu.edu/mis-220-test-out); 3) Meet with your faculty advisor (assigned following admission to the major).

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- DSCI 205 - Business Statistics or equivalent
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 375 - Introduction to Econometrics
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics or equivalent
- One course from:

MIS 220 - Introduction to Business Computer Systems

CSCI 101 - Computers and Applications

- 32 credits of electives in CBE, under departmental advisement; at least 24 of these credits must be upper-division credits in economics; a minimum of 16 of these 24 credits must be at the 400 level
- Take one Communication Focus - Economics (CF-E) or a Communication Focus (CF) course within the College of Business and Economics, and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF-E/CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF-E/CF and WP requirements.

## Economics/Accounting, BA

Combined major offered by the department of Economics and the department of Accounting, College of Business and Economics.

### 100-103 credits

#### Introduction

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications. Accounting is an important tool used by managers of organizations to plan, control and report financial activity. A thorough knowledge of Accounting is necessary to understand the operation and financial condition of any business, non-profit organization or governmental agency.

#### Why Consider an Economics/Accounting Major?

This major is designed for students wishing to obtain a strong preparation in both Economics and Accounting and especially those who intend to go into careers in business. It is an excellent undergraduate study for the Master of Business Administration.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Economics Department Chair</b> Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	<b>Economic Major Information: Academic Department Manager</b> Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu
	<b>Accounting Department Chair</b> Professor George Sanders Parks Hall 451A 360-650-4811 George.Sanders@wwu.edu	<b>Accounting Major Information: Academic Department Manager</b> Michelle Stach Parks Hall 451 360-650-3202 Michelle.Stach@wwu.edu

#### Sample Careers

Actuary/Banking | Financial Planner/Analyst | Accountant | Corporate Attorney | Insurance Consultant

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

## ECONOMICS

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits, and earned a GPA of 2.5 overall, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and earned a cumulative GPA of at least 2.50 in all college-level course work including transfer work.
- Completion of all foundation courses with C- or better.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: [cbe.wwu.edu/mis-220-test-out](http://cbe.wwu.edu/mis-220-test-out); 3) Meet with your faculty advisor (assigned following admission to the major).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics (or equivalent)

#### Upper-Division Courses

- ACCT 321 - Accounting Information Systems I
- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 342 - Intermediate Accounting Theory and Practice II
- ACCT 343 - Intermediate Accounting Theory and Practice III
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 311 - Money and Banking
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management
- 8 additional credits in upper-division accounting courses, under departmental advisement
- 8 additional credits in upper-division economics courses, under departmental advisement

☐ Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

## Economics/Environmental Studies, BA

Combined major offered by the Department of Economics, College of Business and Economics and the Department of Environmental Studies, Huxley College of the Environment.

**103-104 credits (including preparatory courses and major)**

### Introduction

Economics deals with how people living in a world of scarcity make choices. These choices inevitably involve costs. Questions examined in environmental economics include efficient resource use, preservation of wilderness and biological diversity, local and regional air pollution, global climate change, and treatment of toxic substances. Students learn how to use economic principles to help understand the causes of environmental problems and to identify potential remedies.

Environmental Studies draws on basic knowledge of how natural systems work and is applied to solving problems largely created by human activities. Often these problems are represented by disturbances in the functioning of natural systems. In addition to the study of the natural environment, a study of laws and policy related to the environment provides a foundation for solving environmental problems.

### Why Consider an Economics/Environmental Studies Major?

A combined major in Economics/Environmental Studies is available to students having a strong interest in the economic aspects of environmental studies and natural resources. The degree awarded is a B.A. in Economics.

Contact Information			
<b>Economics Department Chair</b>	<b>Economics Major Information: Academic Department Manager</b>	<b>Environmental Studies Department Chair</b>	<b>Environmental Studies Information: Huxley Undergraduate Advisor</b>
Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu	Gigi Berardi Arntzen Hall 204 360-650-2106 Gigi.Berardi@wwu.edu	Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu

### Sample Careers

Environmental Consulting | Economics/Environmental Researcher | Environmental Advocacy for Non-profits | Environmental Affairs-Business | Environmental Protection-Government

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students planning to major in Economics/Environmental Studies should declare their major as early as possible, preferably their first year at Western in both the College of Business and Economics (CBE), and Huxley College of the Environment.

Admission to CBE is selective and based upon prior academic performance and other evidence of high promise. For admission as a full Economics major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

# ECONOMICS

Students apply for admission to the Economics portion of the major by completing the online application form at: [cbe.wvu.edu/apply-cbe](http://cbe.wvu.edu/apply-cbe).

Those pursuing joint programs offered by Environmental Studies with other Western academic units may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time.

Admission to Huxley College and its majors is selective and based upon the following three criteria:

1. Completion of required preparatory course work
2. A brief essay in response to a given question
3. Academic performance (GPA)

Applications should be received by the Huxley College office by April 25 for summer or fall quarter admission; October 6 for winter quarter; and January 15 for spring quarter.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Preparatory Courses (18-19 credits)

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- One course from:
  - MATH 114 - Precalculus I
  - MATH 156 - Algebra With Applications to Business and Economics
- Additional Lab Science course in BIOL, CHEM, GEOL or PHYS

### Major (85 credits)

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 383 - Environmental Economics
- ECON 384 - Energy Economics
- ECON 483 - Resource Economics
- ECON 493 - Senior Seminar: Economics, the Environment and Natural Resources
- ENVS 450 - Science in the Policy Process
- ENVS 455 - Environmental Law
- One course from:
  - DSCI 205 - Business Statistics
  - MATH 240 - Introduction to Statistics
  - MATH 341 - Probability and Statistical Inference
- One course from:
  - ENVS 340 - Developing World
  - ENVS 341 - Population and Resources
  - ENVS 342 - Geography of the World Economy
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology

- ESCI 392 - Introduction to Global Change
- ❑ One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment
- ❑ One course from:
  - ENVS 493 - Environmental Impact Assessment
  - ESCI 493 - Environmental Impact Assessment
- ❑ One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics
- ❑ Electives under advisement (15-18 credits)
  - ECON 300- and 400-level
  - ENVS 300- and 400-level
- ❑ Take one Communication Focus - Economics (CF-E) or a Communication Focus (CF) course within the College of Business and Economics, and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF-E/CF and WP requirements.

## Economics/Mathematics, BA

Combined major offered by the Department of Economics, College of Business and Economics and the Department of Mathematics, College of Science and Engineering

**95 credits**

### Introduction

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications.

"In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power—a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

### Why Consider an Economics/Mathematics Major?

A degree in Economics can be the gateway to many careers. Professional economists are employed as advisors and researchers in both business and government and as teachers and researchers in academic institutions. Employment as an Economist generally requires the completion of graduate studies beyond the bachelor's degree. Western's graduates in Economics hold a variety of jobs in business and teaching. In addition, Economics graduates have a high success rate for admissions to professional schools in law and business.

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry, among many others. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

# ECONOMICS

## Economics Department Chair

Steve Henson  
Parks Hall 315A  
360-650-4843  
Steve.Henson@wwu.edu

## Economics Major Information:

### Academic Department Manager

Diane Brearley  
Parks Hall 315  
360-650-3910  
Diane.Brearley@wwu.edu  
Econ@wwu.edu

## Mathematics Department Chair

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

## Mathematics Major Information:

### Academic Department Manager

Mathematics Department  
Parks Hall 202  
360-650-3785  
Math.Department@wwu.edu

## Sample Careers

Actuary/Banking | Financial Planner/Analyst | Urban/Regional Planner | Economic Researcher | Corporate Attorney | Financial Economist | Real Estate | Business Management | Insurance Consultant

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students planning to major in Economics/Mathematics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE (College of Business and Economics) foundation courses is not required to declare this combined major in economics.

Admissions: For admission as a full Economics/Mathematics major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

Students will also need to meet the admission and declaration requirements of the Department of Mathematics.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 475 - Econometrics
- Choose either
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry IIOR
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II HonorsOR
  - MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential EquationsOR
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I



- ❑ MATH 225 - Multivariable Calculus and Geometry II
- ❑ MATH 226 - Limits and Infinite Series
- ❑ MATH 304 - Linear Algebra
- ❑ M/CS 435 - Nonlinear Optimization
- ❑ One course from:
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
  - MATH 307 - Mathematical Computing
- ❑ One Course from:
  - ECON 406 - Topics in Microeconomics
  - ECON 407 - Topics in Macroeconomics
- ❑ Choose one of the following options:
  - MATH 341 - Probability and Statistical Inference
  - MATH 342 - Statistical Methods I
  - OR
  - MATH 441 - Probability
  - MATH 442 - Mathematical Statistics
- ❑ 16 additional credits in upper-division courses in economics, under prior departmental advisement; 8 of these 16 credits must be at the 400 level
- ❑ Take one Communication Focus - Economics (CF-E) or Communications Focus (CF) course within the College of Business and Economics and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF-E/CF and WP requirements.

## Economics/Political Science, BA

Combined major offered by the Department of Economics, College of Business and Economics and the Department of Political Science, College of Humanities and Social Sciences.

### 94-96 credits

#### Introduction

This major provides students rigorous training in both economic theory and applications with in depth analysis of political theory. Students will gain insight in a variety of areas including trade, monetary systems, and the interplay between politics and economics.

Political Science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern Political Science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

#### Why Consider an Economics/Political Science Major?

The curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in Economics/Political Science go on to law school, graduate school and into the professions. By combining coursework in both Economics and Political Science, students gain an important interdisciplinary perspective to important political and economic issues.

Contact Information			
<b>Economics Department Chair</b>	<b>Economics Major Information:</b>	<b>Political Science Department Chair</b>	<b>Political Science Program Coordinator</b>
Steve Henson	<b>Academic Department Manager</b>	Amir Abedi	Erica Steele
Parks Hall 315A	Diane Brearley	Arntzen Hall 415	Arntzen Hall 415
360-650-4843	Parks Hall 315	360-650-2912	
		Amir.Abedi@wwu.edu	

# ECONOMICS

Steve.Henson@wwu.edu

360-650-3910

Diane.Brearley@wwu.edu

Econ@wwu.edu

360-650-3469

Erica.Steele@wwu.edu

## Sample Careers

Attorney | Financial Planner/Analyst | Law School | Politician | Economist | Banking | Real Estate | Entrepreneur | Campaign Worker | Insurance | Government Consultant

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students planning to major in Economics/Political Science should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

**Admissions:** Programs in the College of Business and Economics (CBE) are selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics/Political Science major, a student must have completed the following requirements

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

Students interested in Economics Major Programs, please see the Economics Department in Parks Hall 315 for information.

Political Science Department: Students are eligible to declare a political science major and any majors combined with political science if they have completed any **two** of the following core courses: PLSC 250, 261, 271, 291, or an equivalent course(s) at another college or university. Due to high student demand and limited capacity, immediate access to specific courses cannot be guaranteed. Students who have no political science transfer credits: go to the Political Science department office, 415 Arntzen Hall, with an unofficial WWU transcript showing the two completed courses from the list above. Students with political science transfer credits from another institution: call 360-650-3469 to make an appointment to have credits reviewed, then visit the department office with the required documents as outlined above.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- DSCI 205 - Business Statistics or equivalent
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 310 - Public Finance
- PLSC 250 - The American Political System
- PLSC 261 - Introduction to Political Theory
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics or equivalent
- One course from:
  - PLSC 271 - Introduction to International Relations
  - PLSC 291 - Introduction to Comparative Politics
- One course from:
  - PLSC 346 - Politics of Inequality

- PLSC 372 - International Political Economy
- PLSC 390 - The Politics of Development
- One course from:
  - PLSC 427 - Policy-Making and Policy Analysis
  - PLSC 462 - The Rise of Modern Political Economy
- One Course from:
  - ECON 491 - Issues in Political Economy
  - PLSC 491 - Issues in Political Economy
- 12 additional credits in upper-division economics courses, under departmental advisement
- 9 additional credits from the American Politics and Public Policy field
- 4 additional credits from the Political Theory field
- 8-9 additional credits in upper-division political science electives, to complete the program
- Take one Communication Focus - Economics (CF-E) or Communications Focus (CF) course within the College of Business and Economics and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF-E/CF and WP requirements.

## Economics/Social Studies, BA

Department of Economics, College of Business and Economics.

### 90 credits

### Introduction

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications.

Social Studies Education is guided by the definition of social studies adopted by the National Council for Social Studies:

"Social Studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, Social Studies provides coordinated, systematic study drawing upon such disciplines as Anthropology, Archaeology, Economics, Geography, History, Law, Philosophy, Political Science, Psychology, Religion, and Sociology, as well as appropriate content from the Humanities, Mathematics and Natural Sciences. The primary purpose of Social Studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world."

### Why Consider an Economics/Social Studies Major?

This major is open to any student who desires to study Economics and a variety of other social sciences, but it is specifically designed for students desiring to pursue a career in teaching. Secondary Education students who wish to be endorsed in Social Studies may choose this major. However, the Economics/Social Studies degree does not require that a student pursue a teaching certificate.

To receive a recommendation for state of Washington certification, students must complete the "teacher certification" program, including the content methods course SEC 426, which is offered by the Department of Secondary Education 1) as a part of the undergraduate BA degree, or 2) as a post baccalaureate program, or 3) as a part of the Master's in Teaching program. See the Secondary Education Professional Program Guide for program admission and teacher certification requirements. Completion of this combined major leads to an endorsement in social studies.

#### Contact Information

**Economics Department Chair**  
Steve Henson  
Parks Hall 315A

**Economics Major Information:**  
**Academic Department Manager**  
Diane Brearley

# ECONOMICS

360-650-4843  
Steve.Henson@wwu.edu

Parks Hall 315  
360-650-3910  
Diane.Brearley@wwu.edu  
Econ@wwu.edu

## Secondary Education Information

Miller Hall 401C  
360-650-3327  
wce.wwu.edu/sec/secondary-education

## Teacher Education Admissions

Miller Hall 150  
360-650-3313  
wce.wwu.edu/admissions/secondary-education

### Sample Careers

Elementary Teacher | High School Teacher | Government | Economist | Entrepreneur | Insurance Consultant

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students planning to major in Economics/Social Studies should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

**Admissions:** Programs in the College of Business and Economics (CBE) are selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics/Social Studies major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: [cbe.wwu.edu/mis-220-test-out](http://cbe.wwu.edu/mis-220-test-out); 3) Meet with your faculty advisor (assigned following admission to the major).

## Grade Requirements

A 2.0 (C) minimum course grade is required in each course taken in the major.

Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

## Requirements

- DSCI 205 - Business Statistics or equivalent
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ENV5 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics or equivalent
- One course from:
  - MIS 220 - Introduction to Business Computer Systems
  - CSCI 101 - Computers and Applications

- ❑ One course from:
  - ANTH 201 - Introduction to Cultural Anthropology
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
- ❑ One course from:
  - ENVS 221 - Geographic Information Science Survey
  - ENVS 240 - Geography and World Affairs
- ❑ 16-20 credits of upper-division electives in economics under departmental advisement to complete the minimum required 90 credits for the major, at least 8 credits must be at the 400 level.
- ❑ Take one Communication Focus - Economics (CF-E) or Communications Focus (CF) course within the College of Business and Economics and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF-E/CF and WP requirements.

## Financial Economics, BA

Combined major offered by the department of Economics and the department of Finance and Marketing, College of Business and Economics

**94-97 credits**

### Introduction

The study of Financial Economics will provide a combination of economic analysis and tools from accounting and finance that can be used to guide financial decisions. The Economics Department and the Department of Finance and Marketing jointly offer this major and strive to provide a program which gives students rigorous training in theory and applications of accounting, economics, and finance.

Learning goals	Learning objectives
1. Understanding of finance	Demonstrate knowledge of financial concepts
2. Understanding of economics	Demonstrate knowledge of economic concepts
3. Understanding of accounting	Demonstrate knowledge of accounting concepts
4. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology
5. Quantitative skills	Analyze economic data using quantitative techniques

### Why Consider a Financial Economics Major?

This major is designed for students interested in both economics and finance, and is aimed particularly at those who wish to pursue careers in corporate finance, financial analysis, insurance and real estate, and/or government agencies where special emphasis is placed on financial economic knowledge.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Economics Department Chair</b>	<b>Economic Major Information:</b>
Dean's Office	Steve Henson	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 315A	Diane Brearley
360-650-3896	360-650-4843	Parks Hall 315
cbe@wwu.edu	Steve.Henson@wwu.edu	360-650-3910
		Diane.Brearley@wwu.edu
		Econ@wwu.edu

# ECONOMICS

## Finance & Marketing Department Chair

Edwin A. Love  
Parks Hall 429  
360-650-4614  
Ed.Love@wwu.edu

## Finance Major Information: Academic Department Manager

Tori Talkington  
Parks Hall 415  
360-650-4202  
Tori.Talkington@wwu.edu

### Sample Careers

Actuary | Financial Planner/Analyst | Government | Investment Banker | Budget Analyst | Banking Securities | Financial Economist | Business Forecaster

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students planning to major in Economics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

**Admissions:** Programs in the College of Business and Economics (CBE) are selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: [cbe.wwu.edu/mis-220-test-out](http://cbe.wwu.edu/mis-220-test-out); 3) Meet with your faculty advisor (assigned following admission to the major).

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 342 - Intermediate Accounting Theory and Practice II
- DSCI 205 - Business Statistics or equivalent
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 375 - Introduction to Econometrics
- FIN 341 - Principles of Finance
- FIN 440 - Investments
- FIN 441 - Intermediate Financial Management  
(financial economics majors only may substitute ECON 375 for DSCI 305 as the prerequisite for FIN 441)
- FIN 444 - Financial Institutions and Markets
- One course from:
  - FIN 448 - Portfolio Analysis and Management

- FIN 449 - Cases in Financial Management
  - ☐ One course from:
    - ACCT 343 - Intermediate Accounting Theory and Practice III
    - ECON 411 - Monetary Economics
  - ☐ One course from:
    - MATH 124 - Calculus and Analytic Geometry I
    - MATH 157 - Calculus With Applications to Business and Economics or equivalent
  - ☐ One course from:
    - CSCI 101 - Computers and Applications
    - MIS 220 - Introduction to Business Computer Systems
  - ☐ 12 credits of upper-division economics electives under departmental advisement; a minimum of 8 of these credits must be at the 400 level
  - ☐ 8 credits of upper-division finance electives under departmental advisement; a minimum of 4 of these credits must be at the 400 level
  - ☐ Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.
  - ☐ Financial Economics majors are required to take the Bloomberg Aptitude Test (BAT) prior to graduation. The test is provided at no charge and the score will not be recorded on transcripts. Students will be informed of the time and date of the examination. The examination requirement may be waived in the case of special circumstances by the Department Chair of Economics or Finance and marketing or by the Dean of the College of Business and Economics.
- Note: ECON 311 may not be counted toward this major.

## Politics/Philosophy/Economics, BA

Combined major offered by the Department of Economics, College of Business and Economics, the Department of Political Science, College of Humanities and Social Sciences and the Department of Philosophy, College of Humanities and Social Sciences

### 83 credits

#### Introduction

Providing an understanding of economic concepts and the functioning of the economy and to provide the ability to apply economic analysis in problem solving is the mission of the Economics Department. The Department strives to provide a major program which gives students rigorous training in both economic theory and applications.

The Politics/Philosophy/Economics major's broad and diverse curriculum is enhanced by the study of modern political science questions of political philosophy and the pursuit of social scientific research.

#### Why Consider a Politics/Philosophy/Economics Major?

This is a multidisciplinary major designed to provide a solid foundation in disciplines critical to decision making and leadership in economic, political and social service institutions.

Contact Information		
<b>Economics Department Chair</b> Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	<b>Philosophy Department Chair</b> Ryan Wasserman Bond Hall 302A 360-650-3860 Ryan.Wasserman@wwu.edu	<b>Political Science Department Chair</b> Amir Abedi Arntzen Hall 415 360-650-2912 Amir.Abedi@wwu.edu
<b>Economics Major Information: Academic Department Manager</b> Diane Brearley Parks Hall 315	<b>Philosophy Academic Department Manager</b> DeNora Lombard Bond Hall 302B	<b>Political Science Program Coordinator</b> Erica Steele Arntzen Hall 415



# ECONOMICS

360-650-3910  
Diane.Brearley@wwu.edu  
Econ@wwu.edu

360-650-3859  
DeNora.Lombard@wwu.edu

360-650-3469  
Erica.Steele@wwu.edu

## Sample Careers

Attorney | Analyst | Lobbyist | Diplomat | Urban/Regional Planner

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students planning to major in Politics/Philosophy/Economics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

This major must be approved by each department.

**Economics Department:** Students must have a 2.5 college-level GPA or better to declare an economics related major. Students can complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Philosophy Department:** In order to declare as a philosophy major or minor, one must first complete three philosophy courses (or 9 credits), with a C- or better in each of those courses. Students wishing to declare as a major or minor should contact the Academic Department Manager or the Department Chair.

**Political Science Department:** Students are eligible to declare the political science major and any of the majors combined with political science if they have completed any two of the following core courses: PLSC 250, 261, 271, 291, or the equivalent course(s) at another college or university. Due to high student demand and limited capacity, immediate access to specific courses cannot be guaranteed. Students who have no transfer credits for political science coursework: go to the political science department office in Arntzen Hall 415 with an unofficial WWU transcript showing the two completed courses from the list above. Students who have transfer credits for political science coursework from another institution must also bring an unofficial transcript from that institution showing the political science courses completed.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 310 - Public Finance
- PHIL 102 - Introduction to Logic
- PHIL 112 - Introduction to Philosophy: Moral Issues
- PHIL 114 - Introduction to Philosophy: Knowledge and Reality
- PHIL 320 - Ethical Theory I
- PHIL 350 - Political Philosophy
- PHIL 360 - Society, Law and Morality
- PLSC 250 - The American Political System
- PLSC 261 - Introduction to Political Theory
- One course from:
  - PLSC 271 - Introduction to International Relations
  - PLSC 291 - Introduction to Comparative Politics
- 12 additional upper-division economics credits
- 9 additional credits from the American Politics and Public Policy field
- 4 additional credits from the Political Theory field
- 9 additional upper-division philosophy credits



☐ Take one Communication focus – Economics (CF-E) or a Communication Focus (CF) course within the College of Business and Economics, and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF/CF-E and WP requirements.

## Minor

### Economics Minor

Department of Economics, College of Business and Economics

#### 24 credits

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	<b>Minor Information:            Academic Department Manager</b> Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

#### How to Declare (Admission and Declaration Process):

The application process originates with the College office when the student submits an online application from via the College of Business and Economics website, [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe). Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ☐ ECON 206 - Introduction to Microeconomics
- ☐ ECON 207 - Introduction to Macroeconomics
- ☐ Additional Economics courses selected under departmental advisement (may not include ECON 446 or ECON 447)

## Economics Courses

### ECON 101 - Markets and Society

An introduction to the U.S. economy and its role in the world economy. Analysis of current economic controversies at home and abroad. Issues may include overall economic performance, problems of hunger and poverty, and the issues of economic insecurity, inequality, and sustainability. The course will examine the emergence of globalization and regionalism, and their implications for the workers and the environment.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### ECON 140 - The Ecology and Economics of Salmon Recovery

Focus on the 4 causes of salmon decline (Habitat, Hydropower, Harvest, and Hatcheries) to investigate the interactions between ecology and economics through lectures, reading and independent projects. Also offered as BIOL 140.

**Prerequisites & Notes:** MATH 112 or equivalent.

## ECONOMICS

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SCI

### **ECON 206 - Introduction to Microeconomics**

An overview of the modern market economy as a system for dealing with the problem of scarcity. Operation and decision-making of economic units; supply, demand and resource allocation; analysis of various market and industry structures; shortages, controls, social costs and benefits; international trade; comparative systems.

**Prerequisites & Notes:** MATH 112 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **ECON 207 - Introduction to Macroeconomics**

An overview of the modern market economy as a system for dealing with the problem of scarcity. The analysis of relationships among such variables as national income, employment, inflation and the quantity of money. The roles of government expenditure, taxation and monetary policy; international finance; economic development.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or ECON 446 or ECON 101; MATH 112 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **ECON 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ECON 301 - Economics Issues**

Applies the tools and concepts learned in introductory micro and macro economics to a variety of contemporary issues. Emphasizes verbal and written communication skills through active participation in classroom activities. Enrollment priority given to economics majors. (Communications focus course.)

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 254; or HNRS 202.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 303 - The History of Economic Thought**

Development of economic thought from the Greek philosophers to the present. Emphasis on the micro, macro and critical traditions in economics following Adam Smith.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 254; or HNRS 202.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 306 - Intermediate Microeconomics**

An analytical approach to the consumer, the firm and markets. The theory of pricing under conditions of perfect and imperfect market structures; the theory of factor markets.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202; MATH 124 or MATH 157 or equivalent.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 307 - Intermediate Macroeconomics**

Examination of the factors that determine the level of income, employment, output and prices in an economic system. Review and analysis of recent U.S. economic policy and performance.

**Prerequisites & Notes:** ECON 207 or HNRS 254 or HNRS 202; and MATH 124 or MATH 157 or equivalent.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 308 - Sports Economics**

Economic analysis of the sports industry. Topics include the market for sports, the market for labor in sports, owners' goals, league structure, government involvement, and the role of the media and fans in the industry. Emphasis is on professional sports.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 309 - Managerial Economics**

Application of economic principles to managerial decision making. Topics may include: Demand, costs and market structure and their relation to pricing, product choice and resource allocation.

Cannot be counted towards majors in economics.  
Cannot be counted towards majors in economics.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202; and MATH 124 or MATH 157 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 310 - Public Finance**

The efficiency, equity and stabilization impacts of public expenditure and revenue programs; emphasis on problems and institutions at the national level.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 311 - Money and Banking**

The nature and functions of money and the role of depository institutions and central banks in affecting the supply of money and credit in the U.S. Considers the changing U.S. financial environment and the influence of monetary policy on interest rates, prices and the overall level of economic activity. Cannot be counted towards the Financial Economics major.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 315 - Health Economics**

An introductory course in health economics. Students will learn about the supply and demand of health services as well as spending on health care. Students will gain knowledge of the health care sector and health economics in the U.S. to allow intelligent discussion/analysis of policy proposals.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202; and DSCI 205; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 317 - European Economic History**

Examines the development and industrialization process in Europe, emphasizing the main topic of what caused the industrialization process in each country. Countries to be studied include England, France, Germany and Russia.

**Prerequisites & Notes:** ECON 206 and 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 325 - Labor Market Economics**

Economics of the labor market, including labor force participation, racial and sexual discrimination, the role of unions, collective bargaining, investments in human capital, and the structure of compensation.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 333 - Introduction to Game Theory**

An analytical approach to the study of strategic interaction. Development of basic theory, including topics such as Nash equilibrium, repeated games, credibility, and mixed strategies. Applications will include markets and competition, auction design, voting, and bargaining.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 337 - Economics Study Abroad**

This provides economics credit for courses taken abroad in a program approved by WWU. Students must present sufficient documentation to show that the material was successfully completed with a letter grade and is appropriate for upper division elective credit in Economics. Repeatable to a maximum of 12 credits. S/U grading.

**Prerequisites & Notes:** Enrollment in a WWU-approved study abroad program.

**Credits:** 4

**Grade Mode:** S/U

### **ECON 340 - Economics of Regulation**

This course covers broad questions regarding the benefits and costs of a wide range of regulatory policies such as: antitrust, pricing and entry regulation of public utilities, environmental regulation, and safety regulation. Included the main policy arguments concerning how and why the behavior of business should be restricted by government in its efforts to increase the well-being of the public.

**Prerequisites & Notes:** ECON 101 or ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

## ECONOMICS

**Credits:** 4

**Grade Mode:** Letter

### **ECON 343 - Population, Environment, and World Agriculture**

Utilizes economic principles to understand the interactions among population growth, food demand, agricultural development, and natural resource utilization, degradation, and conservation.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 355 - The Political Economy of Language and Culture**

An examination of the economics and politics of language and language policy.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202, or admission to Fairhaven College, or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

### **ECON 360 - Introduction to International Economics**

The course will introduce students to the theory, practice, and institutions of international economics. Students will learn how the world economy works, the major benefits that it provides to people and nations, and the most serious problems that it faces.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 361 - Introduction to International Economics and Business**

This course provides an overview of the world economy and of the role of business in international trade and investment. Students will learn about the causes of globalization and examine its consequences for individuals, nations and businesses. The focus of the course will be on examining the impact of international trade and business on economic well-being. Also offered as INTL 361.

**Prerequisites & Notes:** ECON 101 or ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 364 - Topics in Canadian Economic History**

Selected issues in the development of the Canadian economy from the 17th century to the present. Examines the importance of resources, agriculture and transportation in the economic growth of Canada.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 2

**Grade Mode:** Letter

### **ECON 365 - The Canadian Economy**

Examination of 20th-century Canadian economic policy. Topics focus on current economic issues in Canada.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 366 - Canadian Business Environment**

This course provides an introduction to the Canadian business environment. The emphasis is on Canada-U.S. comparisons and on features of the Canadian business environment that are of greatest relevance for U.S. businesses that are considering trading with Canadian partners or investing in Canada.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 375 - Introduction to Econometrics**

Use of statistical methods to estimate and test economic models. Theory and application of multiple regression techniques, with emphasis on the problems arising in the analysis of economic data.

**Prerequisites & Notes:** ECON 206 and ECON 207 or HNRS 209 and ECON 207; MATH 240 or MATH 341 or DSCI 205; MATH 124 or MATH 157 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 380 - Urban Economics**

Economic forces behind urban development, with emphasis on location decisions of households and firms. Economic analysis of urban problems including land use, transportation, housing and

urban public finance.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 381 - American Economic History**

American economic development from 17th century to present. Emphasis on resource endowment, social and economic conditions and institutions, growth and development processes, and the role of government.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 383 - Environmental Economics**

Explores the economic basis of environmental issues and policies. An examination of property rights, externalities and the common-property basis of environmental problems. Alternative policies are analyzed, involving such issues as air and water pollution, solid-waste disposal, hazardous substances, wilderness preservation and the protection of endangered species.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 384 - Energy Economics**

The role of energy in the economy and key aspects of energy supply and demand. Topics include the interrelationships among energy use, economic growth, and the environment; conservation; solar and 'unconventional' energy sources; world oil markets; regulation of gas and electric utilities; and U.S. energy policy. Also offered as ENRG 384.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or HNRS 254 or HNRS 202.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 385 - Comparative Economic Systems**

A comparative analysis of the major world economic systems, including a critical appraisal of underlying philosophies, economic theories, structures, and performance. Includes case studies of specific economies, and the study of reform and transformation of economic systems, especially capitalism and socialism.

**Prerequisites & Notes:** ECON 206 or HNRS 209; ECON 206 or ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 386 - The Economics of Electricity Markets**

Electricity markets have become more complex in recent years because of new energy production and usage technologies, regulatory changes, and increased environmental concerns. This course will look at demand and supply aspects of electricity markets, including the impact of government economic and environmental regulation. Emphasis will be on the U.S. electricity market. Also offered as ENRG 386.

**Prerequisites & Notes:** ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 388 - Economics of the European Union**

The European Union (EU) is the most advanced case study in multinational economic integration of our time. Topics covered include the theory of economic integration, institutions of the EU, various current policy and agenda issues, and a look at EU economic relations with the U.S. and world economies.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 389 - Economies of the Pacific Rim**

The Pacific Rim treated as a distinct economic region. Topics include economic development patterns, interdependence, and economic achievements and problems. Specific emphasis on trade, development and policy relations involving the U.S., Japan and the so-called newly industrialized countries.

**Prerequisites & Notes:** ECON 206 and ECON 207; or HNRS 209 and ECON 207; or HNRS 202; or HNRS 254.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 390 - Internship in Economics**

Eligibility outlined in departmental internship policy statement. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** Economics major; permission required

## ECONOMICS

**Credits:** 2-10  
**Grade Mode:** Letter

### **ECON 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ECON 406 - Topics in Microeconomics**

Application of quantitative and theoretical tools in key areas of microeconomics, with emphasis on quantitative models of the consumer, cost and production analysis of the firm, and market analysis. Special topics may include choice under uncertainty, capital markets, game theory, general equilibrium theory, and the economics of information.

**Prerequisites & Notes:** ECON 306; DSCI 205 or MATH 341.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 407 - Topics in Macroeconomics**

Examination of current issues in macroeconomic theory and policy. Emphasis on recent U.S. experience, with particular attention given to inflation, unemployment, growth and the balance of payments. Includes extensive reading in current professional journals.

**Prerequisites & Notes:** ECON 306, ECON 307; DSCI 205 or MATH 341.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 410 - Benefit-Cost Analysis**

Benefit-cost analysis is an important tool for evaluating the economic impacts of public or private actions. Course provides students with a thorough understanding of the logical underpinnings of benefit-cost analysis and experience in applying benefit-cost analysis to 'real-world' problems.

**Prerequisites & Notes:** ECON 306 or ECON 309 or equivalent.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 411 - Monetary Economics**

Examines the theory and implementation of monetary policy. Topics may include the transmission mechanism of monetary policy, interest rate rules, the credibility of policymakers, and exchange rates. Special consideration is given to empirically measuring the impact of money on real economic variables and optimal monetary policy.

**Prerequisites & Notes:** ECON 307, ECON 375.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 412 - Economics of Tax Policy**

Positive and normative analysis of tax policy; topics include the taxation of savings, taxation of labor income, taxes on risk-taking and wealth, and optimal income and commodity taxation.

**Prerequisites & Notes:** ECON 306 and ECON 310

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 430 - Experimental Economics**

This course introduces experiments as a tool in economic analysis. The course will examine experimental methodology and provide a first exposure to various experimental results. The course will stress the interaction of theory and experiment, seeking to relate questions in the theory of markets, games, and decisions to issues in experimental design and the analysis and interpretation of those results.

**Prerequisites & Notes:** ECON 306 or ECON 309; DSCI 205 or MATH 341.

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 435 - Behavioral Economics**

This course studies the role of psychological processes in economic decision making. In contrast to much of economics, behavioral economics starts with observations of actual decision making and seeks to explain how and why individuals make the choices they do. Topics may include decision heuristics, decision making under uncertainty, time inconsistency, social preferences, and neuroeconomics.

**Prerequisites & Notes:** ECON 306

**Credits:** 4  
**Grade Mode:** Letter

### **ECON 442 - Industrial Organization and Public Policy**

A study of firms and the markets in which they operate. Considerable emphasis placed on

strategic interaction among firms. Topics include mergers, predatory pricing, advertising, patents, vertical relationships and antitrust.

**Prerequisites & Notes:** ECON 306 or ECON 309

**Credits:** 4

**Grade Mode:** Letter

#### **ECON 445 - Economics of Education**

This course focuses on theoretical models exploring the quantity and quality of education. It then explores empirical evidence supporting or in opposition to these theories. Special emphasis will be placed upon models of signaling, human capital choice, externalities to education, and peer effects. The goal of this course is to provide students with enough theoretical and empirical insight to develop their own research paper in the economics of education field.

**Prerequisites & Notes:** ECON 306; ECON 375 or comparable statistics course

**Credits:** 4

**Grade Mode:** Letter

#### **ECON 446 - Economics for the Teacher**

Presentation of basic microeconomic concepts including the operation and decision-making of households and businesses in a market economy. Special consideration is given to the development of classroom teaching strategies involving the use of games, simulations and audiovisual aids.

**Prerequisites & Notes:** teaching experience or current or expected enrollment in teacher education program

**Credits:** 3

**Grade Mode:** Letter

#### **ECON 447 - Methods for Teaching About the National Economy in the Public Schools**

Forces affecting the overall levels of output, employment and prices in the U.S. economy. The economic effects of government policies involving taxes, spending and the money supply. Special consideration is given to the development of classroom teaching strategies involving the use of games, simulations and audiovisual aids.

**Prerequisites & Notes:** ECON 206 or HNRS 209 or ECON 446 plus teaching experience or current or expected enrollment in teacher education program.

**Credits:** 3

**Grade Mode:** Letter

#### **ECON 448 - Methods for Teaching Personal Finance in the Public Schools**

This course is designed to provide educators with the background and training that they need to successfully integrate personal finance into their classes or to develop and present a new stand alone personal finance course. The on-site portion, typically conducted in a conference setting, will be supplemented by research and a project to be completed after the classroom portion of the course.

**Prerequisites & Notes:** Currently certificated teacher.

**Credits:** 3

**Grade Mode:** Letter

#### **ECON 462 - International Trade**

The theory of international trade. Alternative approaches for explaining the pattern and terms of trade. An examination of the gains from trade and commercial policy. Includes issues of protectionism, economic integration and strategic trade policy.

**Prerequisites & Notes:** ECON 306 or ECON 309

**Credits:** 4

**Grade Mode:** Letter

#### **ECON 463 - International Finance**

Balance of payments, adjustment mechanisms, international monetary system and international interdependence. Topics include determinants of exchange rate policy, the relationship between domestic monetary and exchange rate policies, and international policy coordination.

**Prerequisites & Notes:** ECON 307.

**Credits:** 4

**Grade Mode:** Letter

#### **ECON 465 - Development Economics**

This course will study the special problems faced by the less developed countries of the world and the economic mechanisms that must be taken into account in raising living standards. Topics considered may include population growth, the demographic transition, savings and capital accumulation, education and human capital, health and human capital, institutions and the development process, the role of history and multiple equilibria, the role of expectations and multiple equilibria, and economic integration.

**Prerequisites & Notes:** ECON 306, ECON 307; DSCI 205 or MATH 341.

**Credits:** 4

**Grade Mode:** Letter

#### **ECON 470 - Economic Fluctuations and Forecasting**

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Theory and techniques of forecasting economic trends at the macro, micro and regional levels. Application of regression and time-series methods using PC econometric/forecasting software.

**Prerequisites & Notes:** ECON 306 or ECON 307; ECON 375 or MATH 342

**Credits:** 4

**Grade Mode:** Letter

### **ECON 475 - Econometrics**

Further topics in econometrics. Coverage may include systems of simultaneous equations, discrete-choice models, time series analysis, panel data, flexible functional forms, and nonparametric methods.

**Prerequisites & Notes:** ECON 306 or ECON 307; ECON 375 or MATH 342 or MATH 442

**Credits:** 4

**Grade Mode:** Letter

### **ECON 482 - Advanced Topics in Environmental Economics**

Examines an extended set of applications in environmental economics, with a focus on deepening the student's understanding of the field. Applications involve current controversies in environmental policy and management, as well as methodological issues. Topics include climate change, solid waste management and recycling, water quality, and other issues of current interest.

**Prerequisites & Notes:** ECON 383 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **ECON 483 - Resource Economics**

Principles of efficient resource allocation over time, distributional equity and cost/benefit analysis. Examines minerals and other exhaustible resources; forests, fisheries and other renewable resources; and public goods such as water and wilderness.

**Prerequisites & Notes:** ECON 306 or ECON 309

**Credits:** 4

**Grade Mode:** Letter

### **ECON 484 - Economics of Alternative Energy**

Explores the economics of renewable energy and conservation. The economic history of renewable energy and the existing institutional framework are examined. Considers economic motivations for the expansion of renewable energy and conservation. Existing and prospective policies are analyzed. Examines the challenges associated with integrating renewable sources into existing energy

systems. Various quantitative techniques are reviewed and practiced. Also offered as ENRG 484.

**Prerequisites & Notes:** ECON 384 or ENRG 384

**Credits:** 4

**Grade Mode:** Letter

### **ECON 491 - Issues in Political Economy**

Discussion and analysis of selected issues of significant economic and political content. Also offered as PLSC 491.

**Prerequisites & Notes:** senior standing; economics/political science combined major, or economics major/ political science minor, or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 493 - Senior Seminar: Economics, the Environment and Natural Resources**

Discussion and analysis of selected issues in the economics of the environment and natural resources.

**Prerequisites & Notes:** senior standing; economics/environmental studies combined major; also offered as ESTU 493

**Credits:** 4

**Grade Mode:** Letter

### **ECON 495 - Seminar in Applied Econometrics**

This course involves the preparation of either an empirical research paper of publishable quality or an empirical professional consultant report, by each student. Topics vary depending on students' projects. Advanced methods in Econometrics beyond those covered in ECON 375/ECON 475 will be addressed as needed for each of the research topics.

**Prerequisites & Notes:** ECON 306; ECON 307; ECON 375; ECON 475.

**Credits:** 4

**Grade Mode:** Letter

### **ECON 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15



# Finance & Marketing

## Introduction

The Department of Finance and Marketing provides the opportunity for study of business administration relating to financial and marketing management. These fields cover a variety of responsibilities in both public and private organizations. An emphasis on breadth, general knowledge and analytical skills pervades all levels of the undergraduate curriculum. Graduates from the finance and marketing department will have completed a broad business program plus a wide range of nonbusiness subjects, reflecting the department's belief that education should prepare students for satisfying achievements in life as well as business.

## Program Objectives

Departmental programs have been designed to prepare students for leadership roles in business and the community.

The educational objectives of the department are to:

- Encourage intellectual inquiry
- Provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business
- Develop student understanding of the social, economic and regulatory environment of business
- Enhance educational opportunities through research activities of faculty and students

The program is designed for students with a variety of career goals including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

## Faculty

**EDWIN A. LOVE** (2008) Chair and Associate Professor. BA, Evergreen State College; MBA, University of Arizona; Ph.D, University of Washington.

**CATHERINE ARMSTRONG SOULE** (2014) Assistant Professor. BA, University of Montana; MBA, University of Montana; PhD, University of Oregon.

**EARL D. BENSON** (1980) Professor. BS, University of Idaho; MA, Pennsylvania State University; PhD, University of Oregon.

**DAVID R. FEWINGS** (1985) Associate Professor. BSc, University of Manitoba; MBA, PhD, University of Toronto.

**PAMELA L. HALL** (1990) Associate Professor. BS,

MPA, DBA, Louisiana Tech University.

**SOPHIE X. KONG** (2006) Associate Professor. BA, Nanjing University of China; MS, PhD, Florida State University.

**LEE D. McCLAIN** (1991) Senior Instructor. BA, MA, University of Missouri-Columbia; MBA, University of Pennsylvania

**SANDRA MOTTONER** (2001) Associate Dean and Professor. BA, Mary Baldwin College; MBA, The College of William and Mary; PhD, Old Dominion University.

**THOMAS J. OLNEY** (1986) Associate Professor. AB, Cornell University; MBA, PhD, Columbia University.

**DAVID S. RYSTROM** (1983) Associate Professor. BS, UCLA; MS, California State University, Northridge; PhD, University of Oregon.

**FARROKH SAFAVI** (1969) Professor. BA, BS, MBA, University of Teheran; MBA, DBA, University of Southern California.

**MARK G. STATON** (2012) Assistant Professor. BA, University of Virginia; MBA Boston University; MS, PhD, University of Washington.

**WENDY J. WILHELM** (1986) Professor. BA, MS, Tufts University; MBA, Cornell University; PhD, University of Washington.

**NICHOLAS X. WONDER** (2002) Associate Professor. BA, University of Washington; PhD, University of California-Berkeley.

## Departmental Mission

### Finance

The finance faculty provides education in finance to develop students with the goal that they will lead, manage, and positively contribute to firms and other organizations. We originate research and serve our college, university and society at large with professional expertise.

### Marketing

The marketing faculty provides education in marketing. We help undergraduates and MBA's to become better learners and thinkers able to manage firms and organizations in the public interest and in a global context. We originate research and we serve our college, university and society at large with professional expertise.

### Declaration Process

See the College of Business and Economics introductory section of this catalog for declaration of pre-major and major requirements and procedures.

### Other Departmental Information

# FINANCE & MARKETING

## The Curriculum

Development of the department's curriculum has been guided by the standards of the AACSB International—The Association to Advance Collegiate Schools of Business. Students normally devote most of the freshman and sophomore years of study to completion of the General University Requirements (GURs) and the business administration major foundation courses. Several foundation courses satisfy GURs, and careful planning can save time for additional elective course work. Electives that emphasize oral and written communication skills are particularly recommended.

The junior and senior years are devoted primarily to upper-division core requirements and elective course work. The department offers concentrations in finance and marketing. Students who wish to complete a concentration must pay close attention to class scheduling because of prerequisites and limited offerings of some courses. Additional specific information can be found at the department website, [cbe.wvu.edu/fmkt](http://cbe.wvu.edu/fmkt).

### Business Applications Software

The use of personal computer systems to assist in data management, analysis and reporting of results is widespread in the curriculum of the finance and marketing department. Students are expected to have some proficiency in word processing and spreadsheet software at the time they enter upper-division finance and marketing department classes. The proficiency can be gained through several means, including formal class work at a university or community college, work experience or commercially offered classes. Students who have not otherwise gained these skills are expected to test out of or register for MIS 220 prior to their registration in DSCI 305, MIS 320, and FIN 341. Additional specific information can be found at [cbe.wvu.edu/fmkt](http://cbe.wvu.edu/fmkt).

## Bachelor of Arts

### Business Administration — Finance Concentration, BA

Department of Finance & Marketing, College of Business and Economics

**88-90 credits**

#### Introduction

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a

## Communications Requirements

All business majors are required to take one communication focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-, all taken within the College of Business and Economics (CBE). Consult the online Timetable of Classes for the specific course sections that fulfill the CF and WP requirements. The requirements may normally be met by taking designated sections of concentration courses, but may be met by taking any other designated CBE course as well.

## Student Advising

For answers to routine questions concerning preparation and progress through the major, students should consult the finance and marketing department and the department website. Non-routine questions should be directed to the department chair or the department's academic department manager. Questions concerning individual areas of study should be directed to faculty who teach in that area.

After the declaration of a major, a student will be assigned a faculty advisor with whom the student must consult concerning mandatory and elective courses in the chosen major and concentration. The faculty advisor may also be a source of information concerning career objectives and opportunities.

## Enrollment Priorities

Because of high student demand for many business administration program courses, the department must give enrollment priority to students for whom those courses are requirements rather than electives. Priority is given to majors in CBE and other declared majors for whom the classes are required.

variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology
3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

### Why Consider a Finance Concentration in the Business Administration Major?

The field of Finance encompasses many different areas including investments, financial institutions, corporate finance and real estate. Coursework is offered in each of these areas as well as courses in options and futures, multi-national finance and insurance. A graduate with a concentration in Finance may work as a financial securities or loan officer analyst, as well as a business financial manager, portfolio manager, or financial planner stockbroker.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Major Information:</b>
Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	Edwin A. Love Parks Hall 417 360-650-4614 Ed.Love@wwu.edu	<b>Academic Department Manager</b> Tori Talkington Parks Hall 415 360-650-4202 Tori.Talkington@wwu.edu

Sample Careers
Mutual Fund Manager   Chief Financial Officer   Investment Banker   Financial Planner   Claims Adjuster/Examiner   Actuary   Financial Analyst   Appraiser

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a> <a href="http://cbe.wwu.edu/fmkt/finance.shtml">http://cbe.wwu.edu/fmkt/finance.shtml</a>

### How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Pre-major:** Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

## FINANCE & MARKETING

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above.

**Full major:** For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

### Advanced Core

- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management

### Finance Concentration Courses

- FIN 440 - Investments
- FIN 441 - Intermediate Financial Management
- FIN 444 - Financial Institutions and Markets
- One course from:
  - FIN 448 - Portfolio Analysis and Management
  - FIN 449 - Cases in Financial Management

- ☐ Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.
- ☐ Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

Two courses from the list below:

One of these courses must be a 400-level course. (FIN 448 or FIN 449 may be used as one of these courses if not used for the requirement above.)

- FIN 345 - Real Estate
- FIN 442 - Multinational Corporate Finance
- FIN 443 - Topics in Finance
- FIN 446 - Derivatives Markets
- FIN 447 - Commercial Bank Management
- FIN 454 - Risk Management and Insurance
- FIN 456 - Commercial Real Estate Investment
- FIN 466 - Option Trading Strategies

One course from the list below:

- FIN 460 - Finance Apprenticeship
- FIN 490 - Internship in Finance
- Or any FIN course listed above (FIN 345, 442, 443, 446, 447, 454, 456, 466) except any duplication of finance courses.
- ACCT 331 - Cost Management
- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 375 - Income Taxation I
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 310 - Public Finance
- ECON 411 - Monetary Economics

## Business Administration — Marketing Concentration, BA

Department of Finance & Marketing, College of Business and Economics

**88-90 credits**

### Introduction

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology

## FINANCE & MARKETING

3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

### Why Consider a Marketing Concentration in the Business Administration Major?

Marketing includes a variety of activities relating to product and service planning, pricing, communication and distribution. Many interesting career opportunities await marketing graduates, including product and brand management, advertising, public relations, sales and sales management, marketing research, distribution/traffic management and retail management and merchandising. A strong background in behavioral sciences or computer applications will complement marketing studies.

#### Contact Information

##### CBE Admissions & Scholarships

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

##### Department Chair

Edwin A. Love  
Parks Hall 417  
360-650-4614  
Ed.Love@wwu.edu

##### Major Information:

**Academic Department Manager**  
Tori Talkington  
Parks Hall 415  
360-650-4202  
Tori.Talkington@wwu.edu

#### Sample Careers

Product and Brand Manager | Marketing Research | Advertising and Public Relations

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

<http://cbe.wwu.edu/fmkt/marketing.shtml>

### How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

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- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

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- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems

### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

### Advanced Core

- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management

### Marketing Concentration Courses

- MKTG 381 - Fundamentals of Marketing Research
- MKTG 382 - Buying Behavior and Analysis
- MKTG 489 - Marketing Management and Strategy
- Four courses from the list below. One course substitution outside the MKTG courses listed below may be allowed with advisor and chair approval.
  - MKTG 471 - Sports Marketing
  - MKTG 473 - Innovation
  - MKTG 474 - Marketing Strategies for Sustainability
  - MKTG 475 - Brand Management
  - MKTG 476 - Digital Marketing
  - MKTG 480 - Marketing Internship
  - MKTG 481 - Advanced Marketing Research and Analysis
  - MKTG 482 - Personal Selling and Sales Management
  - MKTG 483 - Integrated Marketing Communications
  - MKTG 484 - Retailing
  - MKTG 486 - International Marketing Management
  - MKTG 487 - Nonprofit Marketing
  - MKTG 488 - Topics in Marketing
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF

## FINANCE & MARKETING

and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

□ Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

### Financial Economics, BA (see Economics Department)

Financial Economics, BA (see the Department of Economics)

## Finance Courses

### FIN 215 - Personal Finance

(Not intended for students who plan to be finance majors.) Sources of personal income, saving and consumer spending patterns. Development of techniques for planning and budgeting consumption expenditures and saving, with special emphasis on the use of saving allocations to achieve personal goals; real property, insurance, financial investment, retirement, estate and tax planning.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### FIN 216 - Personal Investing

Introduction to stocks, bonds, and other financial assets, risk and return, and basics of trading securities. Discussion of portfolios, diversification, asset allocation, mutual funds, risk tolerance, life cycle investing, tax issues, gender issues and behavioral finance.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

### FIN 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### FIN 341 - Principles of Finance

Core principles of financial management and goal of businesses, financial institutions and markets, time value of money, capital budgeting, stock and bond valuation, capital structure, risk and return, and financial analysis and planning.

**Prerequisites & Notes:** Sophomore status. ACCT 245, DSCI 205, MIS 220 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### FIN 345 - Real Estate

Real estate law; government regulation of real estate use; development, marketing and financing of commercial and residential real estate.

**Prerequisites & Notes:** Majors Only. MGMT 271, FIN 341

**Credits:** 4

**Grade Mode:** Letter

### FIN 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### FIN 440 - Investments

Operation of securities markets, investment risk and return, security characteristics, portfolio selection and management, introduction to options, mutual funds, stock and bond valuation, performance evaluation.

**Prerequisites & Notes:** Majors Only. FIN 341

**Credits:** 4

**Grade Mode:** Letter

### FIN 441 - Intermediate Financial Management

An integrated approach to financial management including study of intermediate-level financial theory and its application to financial decision making under uncertainty.

**Prerequisites & Notes:** Majors Only. FIN 341.



**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 442 - Multinational Corporate Finance**

Introduction to multinational corporate financial management. International financial operations, capital structure and investment decisions, currency risk, hedging, and related topics with consideration of institutional, ethical, regulatory, demographic, cultural and financial environment issues.

**Prerequisites & Notes:** Majors Only. FIN 341.  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 443 - Topics in Finance**

Varying topics in finance such as financial planning, capital budgeting, working capital management and multinational corporate finance. Repeatable with various topics to a maximum of 8 cr.

**Prerequisites & Notes:** Majors Only. Vary by topic.  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 444 - Financial Institutions and Markets**

Determination and behavior of interest rates in financial markets; measurement and management of interest rate risk; pricing of financial instruments, primarily debt securities; function and description of financial intermediaries; purpose, functions, and description of financial markets.

**Prerequisites & Notes:** Majors Only. FIN 341  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 446 - Derivatives Markets**

Pricing of options, futures, forwards, and swaps; role of derivative contracts in hedging, speculation, and arbitrage; institutional details of derivatives markets.

**Prerequisites & Notes:** Majors Only. FIN 440.  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 447 - Commercial Bank Management**

Management of commercial banks and similar depository institutions, emphasizing the measurement and control of risk in asset and liability management. Issues in contemporary banking.

**Prerequisites & Notes:** Majors Only. FIN 444

**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 448 - Portfolio Analysis and Management**

Examination of issues and techniques associated with the management of investment portfolios. Topics include the development of market expectations, risk management, portfolio diversification, the inclusion of real assets and human capital in the portfolio decision, risk assessment, asset allocation, and portfolio performance measurement.

**Prerequisites & Notes:** Majors Only. DSCI 305 or ECON 375, FIN 440, FIN 444  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 449 - Cases in Financial Management**

Case studies are utilized to develop insight and provide experience in the application of financial theory and practice to such decision-making areas as working capital management, capital budgeting, capital structure determination and dividend policy.

**Prerequisites & Notes:** Majors Only. FIN 441; DSCI 305 or ECON 375; knowledge of spreadsheets.  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 454 - Risk Management and Insurance**

Personal and organizational risk and the means by which such risk may be minimized, transferred or otherwise managed. Employee benefits. Management and regulation of insurance companies.

**Prerequisites & Notes:** FIN 341  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 456 - Commercial Real Estate Investment**

Investment strategy, selection, financing, appraisal of income properties such as rentals, apartments condos, office buildings, shopping centers and other secure purpose real estate.

**Prerequisites & Notes:** Majors Only. FIN 345  
**Credits:** 4  
**Grade Mode:** Letter

#### **FIN 460 - Finance Apprenticeship**

Finance-related employment, plus research and/or special project experience. Emphasis is on applying finance principles in an academically guided setting. Minimum requirements include a written

## FINANCE & MARKETING

proposal, daily/weekly journals of activities, and a comprehensive final report. Personal selling and clerical activities are not acceptable. Four credits may be applied as one elective in the finance concentration, but credits may not be applied to the financial economics major. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** Majors Only. FIN 341, FIN 440. Permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### FIN 466 - Option Trading Strategies

Focuses on experiential learning with each student creating and managing a portfolio of securities and options. A live paper trading platform offers real world trading experiences at real time market prices. Lectures and instructor guidance develops personal and professional knowledge and skills in using financial securities and derivatives markets.

**Prerequisites & Notes:** Majors only. FIN 440.

**Credits:** 4

**Grade Mode:** Letter

### FIN 490 - Internship in Finance

Practical application of skills and theories learned in the classroom through work or special project experience in private or public organizations. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** Majors Only. Permission of instructor.

**Credits:** 1-4

**Grade Mode:** Letter

## Marketing Courses

### MKTG 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### MKTG 380 - Principles of Marketing

Identification and analysis of relevant opportunities and constraints in consumer and industrial target markets. Management of the marketing mix including product planning, distribution institutions and activities, promotion and pricing.

**Prerequisites & Notes:** Junior status. ACCT 240; and ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### MKTG 381 - Fundamentals of Marketing Research

The primary tool for exploring new opportunities in the marketplace. Emphasis will be on how to: 1) specify information needs and design a research study to meet those needs; 2) collect, analyze and use marketing research data to make effective marketing decisions; 3) communicate the research findings and their implications to various publics. This course should be taken concurrently with MKTG 382.

**Prerequisites & Notes:** Majors Only. MKTG 380; co-requisite MKTG 382.

**Credits:** 4

**Grade Mode:** Letter

### MKTG 382 - Buying Behavior and Analysis

Perception, motivation, learning, attitude structure and change, social influences and cultural forces relevant to buyer behavior and decision processes. Implications for marketing planning, analysis and management.

**Prerequisites & Notes:** Majors Only. MKTG 380; co-requisite MKTG 381.

**Credits:** 4

**Grade Mode:** Letter

### MKTG 384 - Marketing and Sustainability

This course will provide students with the skills for developing and marketing a sustainable product. It will cover key concepts and tools related to marketing mix decisions, such as product design-for-environment, pricing based on full cost accounting, greening of the supply chain, and life cycle impact assessment. Strategies for reducing the environmental impacts of products and services will be emphasized.

**Prerequisites & Notes:** MKTG 380. For Declared Business and Sustainability majors only. (CBE majors take MKTG 474).

**Credits:** 4

**Grade Mode:** Letter

### MKTG 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for

General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MKTG 471 - Sports Marketing**

Application of marketing principles and concepts in the sports industry. Includes sponsorships, branding, promotions, public relations, licensing, and sports consumer research and behavior.

**Prerequisites & Notes:** Majors Only. MKTG 380.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 473 - Innovation**

This course explores strategies for effective commercialization of innovation and key concepts in branding. Course will focus on three frameworks for innovation management, and students will discuss and apply these frameworks through several business cases.

**Prerequisites & Notes:** Majors only. MKTG 381 and MKTG 382.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 474 - Marketing Strategies for Sustainability**

This course will provide students with the skills for developing and marketing a sustainable product. It will cover key concepts and tools related to marketing mix decisions, such as product design-for-environment, pricing based on full cost accounting, greening of the supply chain, and life cycle impact assessment. Strategies for reducing the environmental impacts of products and services will be emphasized.

**Prerequisites & Notes:** Majors only. MKTG 381 and MKTG 382.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 475 - Brand Management**

Analysis of brand strategies and concepts such as brand identity, brand equity, and the branding process.

**Prerequisites & Notes:** MKTG 380, MKTG 381, MKTG 382

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 476 - Digital Marketing**

Digital Marketing addresses the various ways that

today's interactive online opportunities impact marketing decisions. Topics include: marketing research through "Big Data" analytics, product co-creation, online distribution channels, dynamic pricing, as well as owned, earned and paid media, Search Engine Optimization (SEO), Pay-Per-Click (PPC) promotion, social media campaigns and others. Both strategies and implementation will be discussed.

**Prerequisites & Notes:** MKTG 381 and MKTG 382.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 480 - Marketing Internship**

Marketing-related employment, research or special project experience. Emphasis is on applying marketing principles in an academically guided setting. Minimum requirements include a written proposal and a comprehensive final report. Cannot be used as one of the two 400-level marketing elective prerequisites for MKTG 489; however, MKTG 480 may be used as one of the four 400-level MKTG electives in the marketing concentration.

**Prerequisites & Notes:** Majors Only. MKTG 381, MKTG 382. Permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 481 - Advanced Marketing Research and Analysis**

Focuses on advanced questionnaire design, enhancing the validity of survey research, value of information and multivariate analysis of market research data. The course is based around a market research project completed for a real business client.

**Prerequisites & Notes:** Majors Only. MKTG 381; MKTG 382; DSCI 305 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 482 - Personal Selling and Sales Management**

Planning and implementation of personal selling activities. Management of the sales force -- objectives, recruiting, selection, training, motivation, compensation, evaluation and control. Emphasis on sustainable business-to-business selling.

**Prerequisites & Notes:** Majors Only. MKTG 382

**Credits:** 4

**Grade Mode:** Letter

## FINANCE & MARKETING

### **MKTG 483 - Integrated Marketing Communications**

Covers the different types of marketing communications and how to integrate them into a coherent IMC plan: advertising (media and creative strategies), sales promotion, public relations, direct marketing, event sponsorship, brand placement, internet advertising, search engine optimization, web site design, and viral communication tactics (e.g., social networks, user-generated content). Emphasis is on 'new media' and Web 2.0 strategies. Students develop a comprehensive IMC plan for an existing or invented product or service.

**Prerequisites & Notes:** Majors Only. MKTG 381, MKTG 382

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 484 - Retailing**

Administration and strategic planning in large and small retail firms. Management of retail functions: stock planning, inventory control, markup and pricing, retail accounting, merchandising, retail promotion, human resources management, store location, design and layout, legal and ethical issues, information systems.

**Prerequisites & Notes:** Majors Only. MKTG 381, MKTG 382.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 486 - International Marketing Management**

Formulation and implementation of international marketing strategies. Analysis of the contemporary global marketing environment, marketing mix issues and decisions in international markets, global competitive analysis and strategy, organizing for international marketing, current problems and practices in multinational firms.

**Prerequisites & Notes:** Majors Only. MKTG 380

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 487 - Nonprofit Marketing**

Marketing strategies for all types of nonprofit organizations. Includes marketing mix, as well as fund raising, volunteer management, nonprofit branding, and the use of public media.

**Prerequisites & Notes:** Majors Only. MKTG 381

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 488 - Topics in Marketing**

Varying topics in marketing such as distribution systems, marketing on the internet, geographic information systems in business and direct marketing. Repeatable with various topics to a maximum of 8 cr.

**Prerequisites & Notes:** Majors Only. Vary by topic.

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 489 - Marketing Management and Strategy**

Application of marketing management and strategic concepts in a case problem and market simulation format. Emphasis on marketing planning, implementation of the marketing mix and utilization of market research information.

**Prerequisites & Notes:** Majors Only. MKTG 381; MKTG 382; and two 400-level marketing courses (excluding MKTG 490).

**Credits:** 4

**Grade Mode:** Letter

### **MKTG 490 - Customized Internship in Marketing**

Practical application of skills and theories learned in the classroom through work or special project experience in public or private organizations. Repeatable to a maximum of 12 credits. Cannot be applied to the marketing concentration.

**Prerequisites & Notes:** Majors Only. MKTG 381 and MKTG 382. Permission of instructor.

**Credits:** 1-4

**Grade Mode:** Letter

### **MKTG 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

# Management

## Introduction

Management describes what is perhaps the most challenging and difficult of human endeavors. It is the process by which we attempt to attain goals beyond the reach of a single individual. Collective action requires that we work effectively and efficiently with and through others. Managing is not a single skill, but rather a dynamic body of knowledge with the goal of the fusion of multiple and diverse skills possessed by many into a cohesive force, the effectiveness of which exceeds the sum of its parts. Management is eclectic, drawing upon the entire fund of human knowledge and experience that is necessary to attain the goals established. Management is also almost universal in application. Any time two or more people join together in pursuit of a common goal and one leads by virtue of skill, experience, personality or authority, management has been initiated.

## Faculty

**JONGWOOK KIM** (2003) Chair and Associate Professor. BBA, MBA, Yonsei University; PhD, University of Illinois at Urbana-Champaign.

**BRIAN K. BURTON** (1995) Associate Vice-President for Academic Affairs. BA, MBA, PhD, Indiana University.

**CRAIG P. DUNN** (2005) Distinguished Professor of Business and Sustainability. BS, California State University-Long Beach; MBA, California State University-Bakersfield; PhD, Indiana University.

**JOSEPH E. GARCIA** (1985) Professor. BA, State University of New York College at Cortland; MA, Western Washington State College; PhD, University of Utah.

**JASON M. KANOV** (2007) Associate Professor. BS, University of Florida-Gainesville; MA, PhD, University of Michigan-Ann Arbor.

**GLENN M. MCEVOY** (2014) Assistant Professor. BS, University of California, Berkeley; MS, PhD, University of Colorado, Boulder.

**K. SKYLAR POWELL** (2013) Assistant Professor. BA, Montana State University; MA, Durham University, UK; PhD, University of Hawai'i.

**THOMAS W. ROEHL** (1999) Professor. BA, Valparaiso University; MA, University of Oregon; PhD, University of Washington.

**SHANTALA SAMANT** (2016) Assistant Professor. BS, Indira Gandhi University; MA, University of Mumbai; PhD, Virginia Tech.

**MARY D. SASS** (2005) Program Director Poulosbo and Associate Professor. BS, University of Albany; PhD, George Washington University.

**ARTHUR L. SHERWOOD** (2014) Assistant Professor. BBA, University of Wisconsin-Madison;

MBA, MS, PhD, Indiana University-Bloomington.

**KRISTI M. TYRAN** (2001) Associate Professor. BS, MBA, University of Washington; PhD, University of California, Irvine.

**DANIEL M. WARNER** (1978) Professor. BA, JD, University of Washington; MA, Western Washington University.

## Departmental Mission

The mission of the Department of Management at Western Washington University is to advance the understanding of managerial issues in a complex environment. We do this to challenge students and faculty to achieve their professional aspirations and civic responsibilities. To accomplish this we develop an environment where students and faculty learn, integrate, and apply business principles and liberal arts.

Our values, in no particular order, are:

**Higher level learning.** We value learning that integrates a variety of disciplines, perspectives, and ideas. Such learning occurs on more than a rudimentary basis. We promote intellectual rigor, lifelong learning, and critical thinking. We do this both in our own research and in our teaching. We engage in service for our professional areas to promote higher level learning throughout our disciplinary communities.

**Civic and community engagement.** We are committed to giving our students an understanding of what it means to be a citizen of the world, community and organization. We want students to understand the importance of being engaged in the world for the sake of the organization they are a part of, but also for the benefit of the world in general, as well as for themselves. We model our commitment to civic and community engagement by serving our college and university in various roles. We also engage in service with the local community and the disciplinary communities we participate in as part of our profession.

**Collegiality.** By this we mean that we have respectful relationships with each other, we are open to feedback, and we communicate fully and truthfully with one another. We are interdisciplinary in our approach to research and teaching, and support each other in our own passionate pursuits. We are committed to service to our department, college and university so as to promote collegiality throughout our WWU system.

**Professionalism.** Professionalism is defined as presenting ourselves in a business-like manner in attire, speech, communication, and interpersonal relationships. We model professionalism and teach professionalism. We are professional with each other, our students, and community members who

## MANAGEMENT

participate in our environment of teaching and learning. We provide our students with opportunities to practice professionalism in our classes and out in the community. We give feedback to our students in professional and ethical practice. We are professional in our service to the department, college, university and community.

### Declaration Process

See the College of Business and Economics (CBE) introductory section of this catalog for declaration of pre-major and major requirements and procedures.

### Other Departmental Information

#### The Curriculum

The development of the curricula in the Department of Management has been guided by the standards of the AACSB International-the Association to Advance Collegiate Schools of Business and those of the Academy of Management. These standards stress a broad education preparing students for managerial roles in business and leadership roles in society.

Curricular paths in the department are structured:

- To develop competence in analysis, decision making and evaluation in both public and private organizations
- To develop and enrich interpersonal skills
- To develop the competence to manage within the social, economic and international environment of organizations
- To provide access to the technical skills necessary in each of the major functional areas of organizations
- To enhance educational opportunity through the theoretical and applied research and business consulting activities of its faculty and students

## Bachelor of Arts

### Business Administration — General Concentration, BA (Management)

Department of Management, College of Business and Economics

**88-90 credits**

#### Introduction

The Business Administration program is designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary to make decisions and evaluate policies in business; another is to develop student understanding of

- To encourage intellectual inquiry into the lessons and skills of the past and present so as to be able to affect the future
- To develop and promote ethical behavior and social responsibility in future managers

Students normally devote most of the freshman and sophomore years of study to completion of the General University Requirements (GURs) and foundation courses in the major. Several foundation courses also satisfy GUR. Careful planning may save time for additional elective course work. Electives which emphasize oral and written communication skills are particularly recommended. The junior and senior years are primarily devoted to core degree requirements and elective course work.

#### Sigma Iota Epsilon (ΣIE)

The Department of Management sponsors a chapter of the National Management Honorary, ΣIE. Membership is by invitation to declared majors in the department and is based on scholastic achievement and will be noted on the student's transcript. An induction is held annually in the winter quarter and several special events are scheduled throughout the year.

#### Student Advising

Students should consult this catalog and the department's Planning Guide as well as meet with the College of Business and Economics pre-major advisor. A faculty advisor will be assigned to each student upon acceptance into the major.

#### Enrollment Priorities

Because of high student demand for Department of Management courses, the department must give enrollment priority to students for whom those courses are requirements rather than electives. Priority is given to majors in CBE and other declared majors for whom the classes are required.

the social, economic and regulatory environments in business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology
3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

**Why Consider a General Concentration in Business Administration (Management) Major?**

The College of Business and Economics prepares men and women for positions of leadership and stewardship in the management and administration of complex organizations — from small companies to large multinational enterprises. Students develop managerial skills, analytic economic skills and interpersonal sensitivities, as well as quantitative and accounting skills. All students earning a degree in Business Administration will develop significant understanding of management information systems and computing.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Management Department Chair</b>	<b>Major Information: Academic Department Manager</b>
Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	Jongwook Kim Parks Hall 351a 360-650-2398 jongwook.kim@wwu.edu	Cristina Nelson Parks Hall 351 360-650-2902 cristina.nelson@wwu.edu

**Sample Careers**  
Project Management | Event Planning | Management Consulting | Nonprofit Management | Government | Small Business

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

**Pre-major:** Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

## MANAGEMENT

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above.

**Full major:** For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management

### General Concentration Courses

- 28 credits of approved upper-division elective courses:

Students in the department may elect to work with their faculty advisor in designing a set of upper-division courses appropriate to their academic interests. The resulting course of study shall have prior approval of the advisor and include the following: HRM 322 or HRM 422, MGMT 313 and five additional upper-division CBE courses. Students interested in entrepreneurial management or human resource management should select the general option and inform the department of that interest. They will be advised of the preferred courses for students intending to embark upon entrepreneurial or human resource management careers or careers in small business.
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF



and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the CBE catalog for more information. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

❑ Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## Business Administration — International Business Concentration, BA

Department of Management, College of Business and Economics

**88-90 credits**

### Introduction

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary to make decisions and evaluate policies in business; another is to develop student understanding of the social, economic and regulatory environments in business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
2. Effective communication skills	Produce quality business documents Deliver a professional quality presentation supported by appropriate technology
3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

### Why Consider an International Business Concentration in Business Administration Major?

An International Business concentration prepares a student to work with business relationships across borders in a variety of situations. Often combining some training in language and in other business areas, graduates should be able to help manage these business relationships that are central to the global environment that will define their careers. For more information, see the IBUS website.

Contact Information			
<b>CBE Admissions &amp; Scholarships</b>	<b>Major Information:</b>	<b>Management Department Chair</b>	<b>Academic Department Manager</b>
Dean's Office	Professor Tom Roehl	Jongwook Kim	Cristina Nelson
Parks Hall 419	Parks Hall 211	Parks Hall 351a	Parks Hall 351
360-650-3896	360-650-4809	360-650-2398	360-650-2902
cbe@wwu.edu	tom.roehl@wwu.edu	jongwook.kim@wwu.edu	cristina.nelson@wwu.edu

Sample Careers
Import/Export Management   Law   Public Policy   International Non-Profit   International Marketing   Management of International   Relationships in Business   Analysis of International   Competitiveness
Major/Career Resources

## MANAGEMENT

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wvu.edu/apply-cbe](http://cbe.wvu.edu/apply-cbe).

**Pre-major:** Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above.

**Full major:** For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing

- OPS 360 - Operations Management
- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management

### International Business Concentration Courses

- Students need to take 7 concentration courses and cannot double count courses that are listed in more than one category.
- IBUS 370 - Introduction to International Business
- IBUS 470 - International Business Operations
- One course from:
  - IBUS 372 - Cross-cultural Management
  - IBUS 473 - International Trade Operations
  - IBUS 474 - Topics in International Business
- One course from:
  - ECON 343 - Population, Environment, and World Agriculture
  - ECON 360 - Introduction to International Economics
  - ECON 365 - The Canadian Economy
  - ECON 366 - Canadian Business Environment
  - ECON 385 - Comparative Economic Systems
  - ECON 388 - Economics of the European Union
  - ECON 389 - Economies of the Pacific Rim
  - ECON 462 - International Trade
  - ECON 463 - International Finance
- Three courses from:
  - ACCT 451 - International Accounting
  - ECON 343 - Population, Environment, and World Agriculture
  - ECON 365 - The Canadian Economy
  - ECON 385 - Comparative Economic Systems
  - ECON 388 - Economics of the European Union
  - ECON 389 - Economies of the Pacific Rim
  - ECON 462 - International Trade
  - ECON 463 - International Finance
  - ENVS 342 - Geography of the World Economy
  - FIN 442 - Multinational Corporate Finance
  - IBUS 372 - Cross-cultural Management
  - IBUS 473 - International Trade Operations
  - IBUS 474 - Topics in International Business
  - INTL 305 - Education Abroad
  - INTL 306 - Education Abroad: Direct Exchange 1
  - INTL 307 - Education Abroad: Direct Exchange 2
  - INTL 308 - Education Abroad: Direct Exchange 3
  - INTL 405 - Education Abroad
  - INTL 406 - Education Abroad: Direct Exchange 1
  - INTL 407 - Education Abroad: Direct Exchange 2
  - INTL 408 - Education Abroad: Direct Exchange 3
  - MGMT 337 - Management Study Abroad
  - MKTG 486 - International Marketing Management
  - OPS 461 - Project Management
  - OPS 466 - Supply Chain Management
  - Other 300 or 400 level course with International Content approved by advisor
- Complete at least one of the following:
  - An approved foreign education experience
  - A second-year college-level language study
  - A qualified global internship
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections

# MANAGEMENT

that fulfill the CF and WP requirements. An International Business student completing a double major may satisfy the upper-division writing proficiency requirement in either major.

□ Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## Business Administration — Management Concentration, BA

Department of Management, College of Business and Economics

### 88-90 credits

### Introduction

The Business Administration program is designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary to make decisions and evaluate policies in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

Learning goals	Learning objectives
1. Understanding of business and economics	Demonstrate breadth of knowledge and skills in general business and economics Demonstrate disciplinary knowledge and skills
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3. Ethical and legal perspective	Analyze problems using an ethical perspective Analyze the legal implications of business decisions
4. Creative problem solving and critical thinking	Critically analyze problems Generate multiple alternative solutions Defend resolutions to problems
5. Quantitative skills	Solve business problems using quantitative techniques

### Why Consider a Management Concentration in Business Administration Major?

A management concentration prepares a student to work with people in a variety of contexts. While other business disciplines focus on business tasks, management focuses on how to motivate others to accomplish these tasks efficiently and effectively with high quality results. Students learn how to manage projects, work with teams, implement changes, and be effective leaders.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Management Department Chair</b> Jongwook Kim Parks Hall 351a 360-650-2398 jongwook.kim@wwu.edu	<b>Major Information: Academic Department Manager</b> Cristina Nelson Parks Hall 351 360-650-2902 cristina.nelson@wwu.edu

Sample Careers
Project Management   Event Planning   Management Consulting   Non-profit Management   Government   Small Business

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

## How to Declare (Admission and Declaration Process):

**How to apply:** Students who meet the requirements will be assured of admission if space is available in the department program of choice. For consideration as a pre-major, provisional major or full major, complete the online application form at: [cbe.wvu.edu/apply-cbe](http://cbe.wvu.edu/apply-cbe).

**Pre-major:** Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who, at the time of application, meet the following requirements:

- Minimum of a 2.50 cumulative college-level GPA including all previous institutions.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must have a WWU cumulative GPA of 2.00 or higher to be considered in good academic standing with the University.

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above.

**Full major:** For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Minimum of 2.30 cumulative GPA in all courses taken within the College of Business and Economics.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

## Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:

## MANAGEMENT

MGMT 492 - Entrepreneurial Problems  
MGMT 495 - Strategic Management

### Management Concentration Courses

- HRM 322 - Human Resource Management
- MGMT 313 - Teamwork Basics
- MGMT 414 - Leadership Practicum
- OPS 461 - Project Management
- One course from:
  - MGMT 401 - Conflict Management and Negotiations
  - MGMT 413 - Organizational Change Practicum
- One course from:  
300 or 400 level MGMT, HRM or IBUS course
- One course from:  
300 or 400 level CBE 4 credit course or advisor approved course
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CR and WP requirements.
- Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## Business and Sustainability, BA

Combined major offered by the Department of Management, College of Business and Economics, and the Department of Environmental Studies, Huxley College of the Environment

**104-106 credits**

### Introduction

The State of Washington is a leader in responding to the societal imperative regarding environmental issues. This Bachelor of Arts degree in Business and Sustainability is an action component of the state's initiatives. This degree combines three areas of study that give graduates the necessary knowledge, skills, and abilities to operate in a changing economic and social environment.

Graduates from this program will possess:

- A fundamental knowledge of economics, giving them the skills to apply economic analysis to problems in sustainable business faced by modern organizations;
- A fundamental knowledge of environmental science and policy, giving them the ability to understand the social and political climate as well as the scientific issues involved in sustainable business;
- An extensive knowledge of business and management in the context of business sustainability giving them the basic skills needed to succeed in organizations.

### Why Consider a Business and Sustainability Major?

A Business and Sustainability Major prepares a student to analyze environmental and social issues from multiple perspectives, decide on action steps to deal with those issues, and then implement those action steps successfully. Need for these actions will only grow as environmental issues, including climate change, waste, and pollution become more central in the operations of organizations. This degree compliments the state's initiative involving private enterprise, not-for-profit organizations, and government.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Faculty Advisor</b>	<b>Department Chair</b>
Dean's Office	Kristi Tyran	Jongwook Kim
Parks Hall 419	Parks Hall 429	Parks Hall 351a

360-650-3896  
cbe@wwu.edu

360-650-2078  
Kristi.Tyran@wwu.edu

360-650-2398  
Jongwook.Kim@wwu.edu

#### Sample Careers

Environmental Sustainability Manager | Sustainability Design Professional | Energy Efficiency Analyst |  
Director of Energy Policy and Programs | Supply Chain Analyst

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students planning to major in Business and Sustainability should declare their major as early as possible, preferably their first year at Western through the College of Business and Economics.

#### College of Business and Economics:

Admission to programs in the College of Business and Economics (CBE) is selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a Business and Sustainability Major with pre-major, provisional major, or full major status, students must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.50 cumulative college GPA (including transfer work)

Completion of the CBE foundation courses is not required to declare this combined major in management.

Complete the online application form at [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Foundation Courses (40 credits)

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- PLSC 250 - The American Political System
- One course from:
  - BIOL 101 - Introduction to Biology
  - CHEM 101 - Chemical Concepts
  - CHEM 121 - General Chemistry I

#### Required Courses (57-59 credits)

- ECON 383 - Environmental Economics
- ECON 482 - Advanced Topics in Environmental Economics
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MIS 220 - Introduction to Business Computer Systems or equivalent \*  
students may test out of this course

## MANAGEMENT

- ❑ MIS 320 - Principles of Management Information Systems
- ❑ MKTG 380 - Principles of Marketing
- ❑ OPS 360 - Operations Management
- ❑ One course from:
  - ENVS 359 - Greening Business Policy and Practice
  - MGMT 359 - Greening Business Policy and Practice
- ❑ One course from:
  - ENVS 455 - Environmental Law
  - ENVS 457 - Environmental Dispute Resolution
- ❑ One course from:
  - ENVS 466 - Greening Business Applications
  - MGMT 466 - Greening Business Applications
- ❑ One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
- ❑ One course from:
  - MKTG 384 - Marketing and Sustainability
  - MKTG 474 - Marketing Strategies for Sustainability
- ❑ Electives: Other courses under Advisement (minimum of 7 credits). Examples include:
  - ACCT 484 - Environmental Accounting/ Sustainability Reporting
  - ECON 343 - Population, Environment, and World Agriculture
  - ECON 384 - Energy Economics
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 471 - Campus Sustainability Planning Studio
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 487 - Conservation Psychology
  - MKTG 473 - Innovation
  - MKTG 487 - Nonprofit Marketing
- ❑ Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF course must be taken within the College of Business and Economics, while the WP requirement can be met with courses from any of the combined major colleges (College of Business and Economics, and Huxley College of the Environment). These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

## Minor

### International Business Minor

Department of Management, College of Business and Economics

**32 credits**

#### Introduction

This minor is designed for students who want to add an international business dimension to a major in another functional area, either in the College of Business and Economics or in one of the other majors at Western Washington University. The student who completes this minor will have a) a general introduction to the cultural, institutional and regulatory structures necessary to do international business; b) two courses that add more focused international knowledge, and c) a course on the management and strategic issues in doing business internationally. Students from outside the College of Business and Economics will also acquire a basic knowledge of the 'language' of business and economics.



## Why Consider an International Business Minor?

An International Business Minor prepares a student to work with business relationships across borders in a variety of situations. Graduates should be able to help manage these business relationships that are central to the global environment that will define their careers.

Contact Information	
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Management Department Chair</b> Jongwook Kim Parks Hall 351a 360-650-2398 Jongwook.Kim@wwu.edu
<b>Minor Information: International Business Minor</b> Professor Tom Roehl Parks Hall 211 360-650-4809 tom.roehl@wwu.edu	<b>Academic Department Manager</b> Cristina Nelson Parks Hall 351 360-650-2902 cristina.nelson@wwu.edu

Sample Careers  
 Import/Export Management | Law | Public Policy | International Non-Profit | International Marketing | Management of International | Relationships in Business | Analysis of International | Competitiveness  
 Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students not already admitted to the College of Business and Economics must have a 2.50 GPA in all WWU courses including the following CBE courses: ECON 206, ACCT 240 and (ECON 207, MGMT 311 or MGMT 271).

The application process originates with the College office when the student submits an online application form via the College of Business and Economics website, [cbe.wwu.edu/apply-cbe](http://cbe.wwu.edu/apply-cbe). Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ACCT 240 - Financial Accounting
- ECON 206 - Introduction to Microeconomics
- One course from:
  - ECON 207 - Introduction to Macroeconomics
  - MGMT 271 - Law and the Business Environment
  - MGMT 311 - Introduction to Management and Organizational Behavior
- Required International Business Courses:
  - IBUS 370 - Introduction to International Business
  - IBUS 470 - International Business Operations
- Choose one additional International Business (IBUS) Elective course:
  - IBUS 372 - Cross-cultural Management
  - IBUS 473 - International Trade Operations
  - IBUS 474 - Topics in International Business

### Electives

- Choose a total of two courses from the following International courses:
  - ACCT 451 - International Accounting

## MANAGEMENT

FIN 442 - Multinational Corporate Finance  
MGMT 481 - Managing Cultural Diversity  
MKTG 486 - International Marketing Management  
OPS 461 - Project Management  
OPS 466 - Supply Chain Management  
ECON 343 - Population, Environment, and World Agriculture  
ECON 360 - Introduction to International Economics  
ECON 365 - The Canadian Economy  
ECON 385 - Comparative Economic Systems  
ECON 388 - Economics of the European Union  
ECON 389 - Economies of the Pacific Rim  
ECON 462 - International Trade  
ECON 463 - International Finance  
INTL 305 - Education Abroad  
INTL 306 - Education Abroad: Direct Exchange 1  
INTL 307 - Education Abroad: Direct Exchange 2  
INTL 308 - Education Abroad: Direct Exchange 3  
INTL 405 - Education Abroad  
INTL 406 - Education Abroad: Direct Exchange 1  
INTL 407 - Education Abroad: Direct Exchange 2  
INTL 408 - Education Abroad: Direct Exchange 3

☐ Advisor Approved Course with International Content

## Human Resource Management Courses

### HRM 322 - Human Resource Management

Recruitment, selection, utilization and development of human resources, with emphasis on employee-management relations and relevant behavioral research.

**Prerequisites & Notes:** Majors Only. MGMT 271, MGMT 311.

**Credits:** 4

**Grade Mode:** Letter

### HRM 422 - Human Resource Management Practicum

Experience-based course that covers both the theories and tools needed to understand the management of human resources. Topics include career planning, staffing, training, organizational development, safety and employment law.

**Prerequisites & Notes:** MGMT 271 and MGMT 311

**Credits:** 4

**Grade Mode:** Letter

### HRM 423 - Staffing

Recruiting and selection as related to organizational objectives. Legal requirements, selection models, validation and topical issues of importance.

**Prerequisites & Notes:** Majors Only. HRM 322 or

HRM 422.

**Credits:** 4

**Grade Mode:** Letter

### HRM 424 - Training and Development

Training as related to organizational objectives. Emphasis on training models, learning theory, evaluation methodologies, instructional techniques and topics of special interest.

**Prerequisites & Notes:** Majors Only. HRM 322 or HRM 422.

**Credits:** 4

**Grade Mode:** Letter

### HRM 425 - Negotiations and Labor Relations

Uses cases, lectures and simulations to develop negotiation skills in a variety of management situations, including union-management relations. Issues include pre-employment discussions, collective bargaining, arbitration, mediation, agency, renegotiating contracts, and multiparty discussions.

**Prerequisites & Notes:** Majors Only. HRM 322 or HRM 422.

**Credits:** 4

**Grade Mode:** Letter

### HRM 426 - Current Issues in Human Resource Management

Current problems in human resource policy and practice.

**Prerequisites & Notes:** Majors Only. HRM 322 or HRM 422.

**Credits:** 4

**Grade Mode:** Letter

### **HRM 427 - Compensation Administration**

Examination of theories, models and procedures required to develop compensation and reward systems in organizations. Economic, psychological and social elements of compensation.

Determination of compensation structures and differentials, forms of compensation and reward, compensation levels.

**Prerequisites & Notes:** Majors Only. HRM 322 or HRM 422.

**Credits:** 4

**Grade Mode:** Letter

### **HRM 490 - Internship in Human Resource Management**

Practical application of skills and theories learned in the classroom through work or special project experience in private or public organizations. Repeatable up to 12 credits.

**Prerequisites & Notes:** business administration students only.

**Credits:** 1-4

**Grade Mode:** Letter

## **International Business Courses**

### **IBUS 370 - Introduction to International Business**

Introduction to the environment and challenges of doing business abroad. Topics include country-market differences, trade and investment patterns, the international financial environment, issues in business-government relations and strategies for international business.

**Prerequisites & Notes:** ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### **IBUS 372 - Cross-cultural Management**

This course is concerned with various perspectives on, and elements of, differences in national culture, the relevance of cultural differences to key management issues, and applied issues associated with management in cross-cultural contexts. This means that the course considers various disciplinary approaches to understanding national culture, and relates them to key applied management topics such as motivation, leadership, decision making, and negotiations.

**Prerequisites & Notes:** Open to CBE majors. IBUS 370 or MGMT 313. Students in other majors may request permission from instructor.

**Credits:** 4

**Grade Mode:** Letter

### **IBUS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **IBUS 470 - International Business Operations**

Strategic and operational issues that firms face when they do business abroad. Themes include the competitiveness challenge, country-market analysis and entry strategies, negotiations and diplomacy, cooperative ventures, design and control of international operations, and various functional area issues.

**Prerequisites & Notes:** Majors Only. IBUS 370 or another international course in the College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

### **IBUS 473 - International Trade Operations**

Operations of firms using exporting as a means to serve foreign markets. Focus on export operations (documentation, transport, support services, financing), practical aspects of contract negotiations, alternative methods of export business arrangements.

**Prerequisites & Notes:** Majors Only. IBUS 370 or MKTG 486.

**Credits:** 4

**Grade Mode:** Letter

### **IBUS 474 - Topics in International Business**

Varying topics in international business. This could include courses on business in specific areas of the world, specific international business topics (e.g. negotiation), or currently important topics in the international business field. May Be Repeated for Credit on a Different Topic (up to 8 credits).

**Prerequisites & Notes:** Majors Only. IBUS 370 or equivalent of permission of instructor.

## MANAGEMENT

**Credits:** 4

**Grade Mode:** Letter

### **IBUS 490 - Internship in International Business**

Practical application of international business skills and theories learned in the classroom through work or special projects experience in private or public organizations. Repeatable to 12 credits.

**Prerequisites & Notes:** Majors Only. Business administration students only.

**Credits:** 1-4

**Grade Mode:** Letter

## Management Courses

### **MGMT 201 - Introduction to Business**

A survey of the field. Introduction to the major functional areas comprising business or organizations. Recommended for students not intending to major in the College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

### **MGMT 202 - Perspectives on Business**

An introduction to perspectives on the nature of business in society, the development of the firm and how organizations function.

**Prerequisites & Notes:** Enrollment in CBE Distinguished Scholars Program

**Credits:** 2

**Grade Mode:** Letter

### **MGMT 271 - Law and the Business Environment**

Historical development of legal institutions, the judicial process, and impact of the law upon individual and business decision making.

**Prerequisites & Notes:** only one of MGMT 271, PLSC 311, or FAIR 311B may be taken for GUR credit.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **MGMT 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies

and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MGMT 311 - Introduction to Management and Organizational Behavior**

Introduction to organization theory, behavior and interpersonal communication; concepts of power, authority and influence; the role of philosophy and values in organizations.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 313 - Teamwork Basics**

An introduction to teamwork concepts and skills. Covers structural and process attributes of teams with the objective of enhancing team leader or member effectiveness.

**Prerequisites & Notes:** Majors Only. MGMT 311

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 315 - Career Preparation**

This course provides a framework for understanding business etiquette and professionalism. Through practical and hands-on experiences students prepare for the job search process and learn skills necessary to succeed in their future career. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **MGMT 319 - Business Communications**

Business writing principles applied to various types of communications and reports. Cases used; work must be submitted in acceptable business format.

**Prerequisites & Notes:** ENG 101 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 337 - Management Study Abroad**

Management elective credit for upper-division courses taken at a WWU-approved study abroad program. Students must present sufficient documentation to show the material was successfully completed with a letter grade and the content is appropriate for upper-division elective credit in management. Repeatable up to 12 credits. S/U grading.

**Prerequisites & Notes:** Majors only.

**Credits:** 4

**Grade Mode:** S/U grading

### **MGMT 359 - Greening Business Policy and Practice**

This course will provide both a survey and applications of major U.S. and Washington state policies and practices supporting the greening of business. Also offered as ENV5 359.

**Prerequisites & Notes:** Completion of Huxley ENV5 Major Phase I or ESCI Major or CBE Major or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 365 - Industrial Purchasing**

This course will provide both a survey and applications of major U.S. and Washington state policies and practices supporting the greening of business. Also offered as ENV5 359.

**Prerequisites & Notes:** MGMT 360

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 380 - Business History of the United States**

Business history of the United States. Review and analysis of the organizational methods, performance, climate and entrepreneurship of American business from 1780 to the present.

**Prerequisites & Notes:** ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 382 - Business and Its Environment**

A study of the business decision-making process as these decisions interact with the social, technological, political/legal and economic environments. The causes and effects of the regulation of business are developed and explored.

**Prerequisites & Notes:** Majors only. MGMT 271.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not

eligible for tuition waiver.

**Credits:** 1-15

### **MGMT 401 - Conflict Management and Negotiations**

Examination of the theory and practice of interpersonal conflict management and negotiations in organizations. Uses cases and simulations to develop negotiation skills. Topics include conflict resolution, distributive and integrative negotiation techniques and outcomes, mediations, and collaboration.

**Prerequisites & Notes:** Majors Only. MGMT 313

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 413 - Organizational Change Practicum**

Field-based course that covers both the theories and tools needed to implement change in organizations. Topics include individual resistance to change, ethics in change management and consulting, issues in organizational change, organizational development, and change management.

**Prerequisites & Notes:** Majors Only. MGMT 313.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 414 - Leadership Practicum**

A problem-based leadership course with emphasis on leading teams, leading organizational change, and self-leadership.

**Prerequisites & Notes:** Majors Only. OPS 461; MGMT 313.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 415 - Creativity, Innovation and Leadership**

Creativity and innovation are the future. Leaders who can inspire creativity and innovation in others throughout their organization will be successful in any role, industry, or location. Leaders who can themselves build teams to solve problems creatively will thrive in the organizations of the future. In this class, students will have an opportunity to build skills related to inspiring creativity and innovation in both themselves and others. Upon completing this course, students will have the skills to work with others in creative endeavors in many organizational contexts. Be prepared to get messy and creative!

**Prerequisites & Notes:** Major status.

## MANAGEMENT

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 417 - Social Entrepreneurship**

This course is about using entrepreneurial skills to craft innovative responses to social problems. Entrepreneurs are particularly good at recognizing opportunities, exploring innovative approaches, mobilizing resources, managing risks, and building viable enterprises. These skills are just as valuable in the social sector as they are in business. Social entrepreneurship applies to both profit and non-profit firms who have programs designed to create social value.

**Prerequisites & Notes:** MGMT 271

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 466 - Greening Business Applications**

This course is an experiential capstone combining faculty and student teams from the College of Business and Economics and Huxley College of the Environment. Student groups prepare a Green Business Assessment for a community or campus organization and compile, distribute, and present a final report to the campus and the client organizations. Also offered as ENVS 466.

**Prerequisites & Notes:** CBE Major or Huxley Major or permission of instructor; priority given to majors in Business and Sustainability. Senior status.

**Credits:** 5

**Grade Mode:** Letter

### **MGMT 474 - Topics in Management**

Varying topics in Management. Courses cover current issues and trends in the management field. Repeatable with different topics up to 8 credits, including original course.

**Prerequisites & Notes:** Majors only; MGMT 313.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 481 - Managing Cultural Diversity**

Management of persons from diverse countries and cultures. Culture-specific issues and issues of diversity in the workplace. Problems, cases and research assignments associated with managing in a multicultural and international work environment.

**Prerequisites & Notes:** Majors Only. MGMT 311

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 483 - Ethics in Business Decisions**

An investigation of ethical theories and their application to issues faced by managers. An analysis of the morality of capitalism as a social system, and the ethical issues involved in international business operations.

**Prerequisites & Notes:** Majors Only. MGMT 382

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 490 - Internship in Business Administration**

Practical application of skills and theories learned in the classroom through work or special project experience in private or public organizations. Repeatable to 12 credits. Also offered as IBUS 490.

**Prerequisites & Notes:** Majors Only.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 491 - Small Business Entrepreneurship**

Planning, marketing, financial, legal, control and human elements associated with the start up, acquisition and operation of a small business from the entrepreneurial point of view.

**Prerequisites & Notes:** Majors Only. MGMT 311, FIN 341, MKTG 380, OPS 360, and MIS 320 or ACCT 321.

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 492 - Entrepreneurial Problems**

Field consulting work and study under faculty supervision with small business entrepreneurs in the local business community, directed towards solving varied real-life small business problems.

**Prerequisites & Notes:** Majors Only. MGMT 491

**Credits:** 4

**Grade Mode:** Letter

### **MGMT 495 - Strategic Management**

Case study of policy making and administration from a general management point of view. Emphasis on problem analysis, the decision-making process, administration and control, and development of policies and objectives.

**Prerequisites & Notes:** Majors Only. MGMT 311, FIN 341, MKTG 380, OPS 360, and MIS 320 or ACCT 321.

**Credits:** 4

**Grade Mode:** Letter

**MGMT 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

# Master of Business Administration

## Program Description

The Master of Business Administration (MBA) program is a rigorous, integrated, graduate business program designed to prepare students for responsible leadership positions in private, public and not-for-profit organizations, as well as in entrepreneurial ventures. The Western MBA curriculum provides a balance of theory and application essential for managerial excellence. The program is intended for the active manager and technical supervisor as well as those looking for new opportunities at the mid-management level. Regardless of undergraduate degree, candidates will find a challenging program designed to meet their specific background and needs. The program is distinguished by small classes, collegial relationships among faculty and students, and a diverse student body.

The College of Business and Economics is accredited by AACSB International-The Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels.

## Program Mission

The Western MBA is a high-quality general graduate business program that develops organizational leaders who integrate strong managerial skills with a solid foundation in the core business functions within a global context.

## Program Learning Goals

The typical student graduating from Western Washington University's MBA program shall:

- Validate mastery of discipline-specific business knowledge and analytical skills
- Integrate functional areas of business knowledge across disciplines
- Synthesize functional business knowledge within strategic organizational framework
- Illustrate ability to apply critical thinking and ethical decision making to complex business problems
- Exhibit competence in applying interpersonal and managerial skills within an institutional context
- Demonstrate ability to motivate others to achieve strategic outcomes
- Be conscientious in the application of business knowledge
- Create an orientation of personal responsibility, respect and professionalism

- Transform followers to leaders

## Admission Prerequisites

Knowledge prerequisites: Normally an applicant to the program must have completed a college-level calculus course or otherwise demonstrate knowledge and proficiency in quantitative methods prior to entering the program. It also is expected that entering students will have proficiency in the use of microcomputers and common business software. Well-developed communications skills also are important.

## Graduate Faculty

**Deepinder Bajwa** (1999) PhD, management information systems.

**Earl D. Benson** (1980) PhD, finance.

**Brian K. Burton** (1995) PhD, business environment.

**Christopher Califf** (2015) PhD, management information systems.

**Burak Dolar** (2007) PhD, economics.

**Craig Dunn** (2005) PhD, business environment.

**Brandon Dupont** (2006) PhD, economic history, labor economics.

**Joseph E. Garcia** (1985) PhD, organizational behavior.

**David L. Gilbertson** (1988) PhD, auditing/financial accounting.

**Steven Globerman** (1994) PhD, international business.

**Peter Haug** (1986) PhD, operations management.

**Steven E. Henson** (1985) PhD, microeconomics, applied econometrics.

**L. Hart Hodges** (2005) PhD, natural resources, applied business.

**Stella Hua** (2002) PhD, operations management and quantitative methods.

**Marguerite R. Hutton** (1989) PhD, taxation.

**Jason M. Kanov** (2007) PhD, organizational behavior

**Iihyung Kim** (2004) PhD, operations and technology management.

**Jongwook Kim** (2003) PhD, business policy and strategic management.

**Shawn Knabb** (2005) PhD, macroeconomics, public finance, growth.

**John Krieg** (2000) PhD, econometrics, money and banking, macroeconomics.

**Pamela L. LaBorde** (1990) PhD, Finance.

**Edwin A. Love** (2008) PhD, marketing.

**Glenn M. McEvoy** (1985) PhD, management and organizational behavior.

**Sandra Mottner** (2001) PhD, marketing.

**Dennis R. Murphy** (1979) PhD, managerial decisions/international finance.

**David M. Nelson** (1977) PhD, macroeconomics/money markets.

**Thomas Roehl** (1999) PhD, international



business.

**Matthew Roelofs** (1997) PhD, managerial economics.

**George D. Sanders** (1995) PhD, financial/governmental accounting.

**J. Christopher Sandvig** (2001) PhD, management information systems.

**Mary Sass** (2005) PhD, organizational behavior and development.

**Stephen V. Senge** (1985) CMA, DBA, managerial accounting.

**Khim L. Sim** (2008) PhD, managerial accounting.

**William R. Singleton** (1976) PhD, taxation.

**Mark Springer** (1987) PhD, operations management.

**Mark G. Staton** (2010) PhD, marketing and consumer behavior.

**Ozan Sula** (2006) PhD, international finance, macroeconomics, money and banking.

**Audrey Taylor** (2001) PhD, managerial accounting.

**Craig Tyran** (2001) PhD, management and information systems.

**Kristi M. Tyran** (2001) PhD, organizational behavior.

**Daniel M. Warner** (1978) JD, business law.

**Wendy J. Bryce Wilhelm** (1986) PhD, marketing.

**Nicholas Wonder** (2002) PhD, corporate finance.

**Zhe George Zhang** (2000) PhD, statistics.

## Master of Business Administration

### Business Administration, Accelerated, MBA

#### Program Application / Admission Requirements

The Western Washington University Accelerated MBA program invites applications from students with a business-related undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, applicants will need to complete an application form online at the Graduate School's website which includes the submission of an application fee, transcripts, GMAT or GRE scores, a statement of purpose, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Annually in summer quarter (accelerated track).

**Deadline:** Final application deadline is May 1. International students are encouraged to submit applications by February 1 to ensure adequate time for admission decision and application for student visa.

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

#### Supporting Materials:

- Application with \$100 fee (subject to change)
- One set of transcripts from all previous college-level work
- Personal statement of background and intention
- Résumé showing work experience

#### The Curriculum

The Accelerated Full-Time MBA Program serves outstanding students who have recently completed an undergraduate degree in a business-related field or who have extensive managerial experience.

#### Program Requirements (52 credits)

- MBA 516 - Managerial Decisions

## MASTER OF BUSINESS ADMINISTRATION

- ❑ MBA 524 - Management and Leadership Skills
- ❑ MBA 525 - Seminar in Management
- ❑ MBA 532 - Marketing Strategy
- ❑ MBA 541 - Managerial Finance
- ❑ MBA 573 - Project Management
- ❑ MBA 591 - Strategic Management
- ❑ MBA 595 - Competing in a Global Environment
- ❑ MBA 598 - Business Consulting Capstone 1
- ❑ MBA 599 - Business Consulting Capstone 2

The MBA 598/MBA 599 sequence serves as a comprehensive exam.

Students are required to maintain a learning portfolio throughout their academic tenure. This portfolio is to document the achievement of MBA Program Goals and learning objectives.

Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.

### Other Requirements

#### Field Experience

In order to demonstrate competence in an organizational setting, students must complete 100 hours of field experience during their time in the program. Upon completion of the approved field experience, the student's project supervisor must submit a formal evaluation or a letter of recommendation, and the student must submit a 3-5 page reflective paper detailing their experience. Additional information about this requirement can be obtained from the MBA program office.

#### Academic Probation

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

#### Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program Website. Nonroutine questions should be directed to the program director, assistant director or program manager.

### Business Administration, Evening Part-Time, MBA

#### Program Application / Admission Requirements

The Western Washington University Evening MBA program invites applications from students with any undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, applicants will need to complete an application form online at the Graduate School's website which includes the submission of an application fee, transcripts, GMAT or GRE scores, a statement of purpose, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Summer, even-numbered years (part-time track).

**Deadline:** Application deadline is May 1. International students are encouraged to submit applications by February 1 to ensure adequate time for admission decision and application for student visa.

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

## Supporting Materials:

- Application with \$100 fee (subject to change)
- One set of transcripts from all previous college-level work
- Personal statement of background and intention
- Résumé showing work experience

## The Curriculum

The Evening Part-Time MBA Program serves students who have significant managerial or professional experience, and who come from a wide range of undergraduate backgrounds, both business and non-business related.

## Program Requirements (64 credits)

- MBA 502 - Microeconomics
- MBA 503 - Macroeconomics
- MBA 504 - Statistical Methods
- MBA 505 - Business Finance
- MBA 506 - Corporate Information Systems Management
- MBA 507 - Managing Organizations and People
- MBA 508 - Operations Management
- MBA 509 - Marketing Management
- MBA 510 - Financial Accounting and Reporting Concepts
- MBA 511 - Managerial Accounting
- MBA 524 - Management and Leadership Skills
- MBA 532 - Marketing Strategy
- MBA 541 - Managerial Finance
- MBA 591 - Strategic Management
- MBA 594 - Introduction to Professional Management
- MBA 595 - Competing in a Global Environment

A required comprehensive exam is given as part of MBA 591.

Students are required to maintain a learning portfolio throughout their academic tenure. This portfolio is to document the achievement of MBA Program Goals and learning objectives.

Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.

## Other Requirements

### Academic Probation

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

# MASTER OF BUSINESS ADMINISTRATION

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

## Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program website. Non-routine questions should be directed to the program director, assistant director or program manager.

## Business Administration, Managers and Professionals, MBA

### Program Application / Admission Requirements

The Western Washington University Managers and Professionals MBA program invites applications from students with any undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, applicants will need to complete an application form online at the Graduate School's website which includes the submission of an application fee, transcripts, GMAT or GRE scores, a statement of purpose, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Winter, even-numbered years (part-time track).

**Deadline:** Application deadline is November 15. International students are encouraged to submit applications by August 15 to ensure adequate time for admission decision and application for student visa.

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD.. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

### Supporting Materials:

- Application with \$100 fee (subject to change)
- One set of transcripts from all previous college-level work
- Personal statement of background and intention
- Résumé showing work experience

### The Curriculum

The Weekend Part-Time MBA Program for Managers and Professionals serves students who have significant managerial or professional experience, and who come from a wide range of undergraduate backgrounds, both business and non-business related.

### Program Requirements (64 credits)

- MBA 502 - Microeconomics
- MBA 503 - Macroeconomics
- MBA 504 - Statistical Methods
- MBA 505 - Business Finance
- MBA 506 - Corporate Information Systems Management
- MBA 507 - Managing Organizations and People
- MBA 508 - Operations Management
- MBA 509 - Marketing Management

- ❑ MBA 510 - Financial Accounting and Reporting Concepts
- ❑ MBA 511 - Managerial Accounting
- ❑ MBA 524 - Management and Leadership Skills
- ❑ MBA 532 - Marketing Strategy
- ❑ MBA 541 - Managerial Finance
- ❑ MBA 591 - Strategic Management
- ❑ MBA 594 - Introduction to Professional Management
- ❑ MBA 595 - Competing in a Global Environment

A required comprehensive exam is given as part of MBA 591.

Students are required to maintain a learning portfolio throughout their academic tenure. This portfolio is to document the achievement of MBA Program Goals and learning objectives.

Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.

### Other Requirements

#### Academic Probation

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

#### Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program Website. Nonroutine questions should be directed to the program director, assistant director or program manager.

### Business Administration, Regular Full-Time, MBA

#### Program Application / Admission Requirements

The Western Washington University Regular Full-Time MBA program invites applications from students with any undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, applicants will need to complete an application form online at the Graduate School's website which includes the submission of an application fee, transcripts, GMAT or GRE scores, a statement of purpose, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Annually in fall (regular track).

**Deadline:** Application deadline is May 1. International students are encouraged to submit applications by February 1 to ensure adequate time for admission decision and application for student visa.

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

**Supporting Materials:**

# MASTER OF BUSINESS ADMINISTRATION

- Application with \$100 fee (subject to change)
- One set of transcripts from all previous college-level work
- Personal statement of background and intention
- Résumé showing work experience

## The Curriculum

The Traditional Full-Time MBA Program serves students who have some managerial or professional experience, and who come from a wide range of undergraduate backgrounds, both business and non-business related.

### Program Requirements (80 credits)

- MBA 502 - Microeconomics
- MBA 503 - Macroeconomics
- MBA 504 - Statistical Methods
- MBA 505 - Business Finance
- MBA 506 - Corporate Information Systems Management
- MBA 507 - Managing Organizations and People
- MBA 508 - Operations Management
- MBA 509 - Marketing Management
- MBA 510 - Financial Accounting and Reporting Concepts
- MBA 511 - Managerial Accounting
- MBA 524 - Management and Leadership Skills
- MBA 525 - Seminar in Management
- MBA 532 - Marketing Strategy
- MBA 541 - Managerial Finance
- MBA 573 - Project Management
- MBA 591 - Strategic Management
- MBA 594 - Introduction to Professional Management
- MBA 595 - Competing in a Global Environment
- MBA 598 - Business Consulting Capstone 1
- MBA 599 - Business Consulting Capstone 2

The MBA 598/MBA 599 sequence serves as a comprehensive exam.

Students are required to maintain a learning portfolio throughout their academic tenure. This portfolio is to document the achievement of MBA Program Goals and learning objectives.

Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.

## Other Requirements

### Field Experience

In order to demonstrate competence in an organizational setting, students must complete 100 hours of field experience during their time in the program. Upon completion of the approved field experience, the student's project supervisor must submit a formal evaluation or a letter of recommendation, and the student must submit a 3-5 page reflective paper detailing their experience. Additional information about this requirement can be obtained from the MBA program office.

### Academic Probation

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

## Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program Website. Nonroutine questions should be directed to the program director, assistant director or program manager.

## Master of Business Administration Courses

### MBA 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### MBA 502 - Microeconomics

An analytic approach to the theory of the consumer, the firm and markets. Emphasis is placed on the development of managerial tools for understanding supply and demand concepts and the determination of prices in various market settings for both outputs and inputs. The problems of market efficiency, externalities and public goods are also considered from an analytical and policy perspective.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

### MBA 503 - Macroeconomics

The study of the national economy and the interpretation of national economic performance. Material includes the causes and policy remedies for business cycles, unemployment, inflation and the twin deficits (government and foreign trade). Topics such as Keynesian and classical theories, monetary and fiscal policy, and international trade are studied in an analytic perspective with emphasis on the behavior of business cycles and the issues facing the national economy in an international setting.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

### MBA 504 - Statistical Methods

Provides an understanding of some of the tools that enable a manager to analyze information, including data analysis, probability distributions, statistical inference and hypothesis testing, and multivariate regression analysis.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

### MBA 505 - Business Finance

Objectives, tools and techniques of finance from the viewpoint of the financial manager of a manufacturing firm. Focus is on corporate financial decisions encompassing investment, financing, dividends and working capital management, including an introduction to financial instruments and markets.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

### MBA 506 - Corporate Information Systems Management

Case study of the current and potential applications of information technology to enhance the competitive posture of the corporation. Uses of information technology throughout the organization; management and control of the information technology function.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

### MBA 507 - Managing Organizations and People

The purpose of this course is to help students understand the complexities of organizations. It provides exposure to theories of organization, important organizational issues and processes, and a variety of strategies and tactics useful to successfully manage organizations and people.

# MASTER OF BUSINESS ADMINISTRATION

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 508 - Operations Management**

Surveys the fundamentals of operations management and further develops the student's competence through case analyses. Dual emphasis on concepts and applications prepares students for all aspects of managing an operation. Detailed coverage of operations design, planning and control.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 509 - Marketing Management**

Staffing, direction and coordination of organizational marketing activities. Development of new products and integration with current activities to meet evolving market needs. Includes sales and advertising in both national and international markets.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 510 - Financial Accounting and Reporting Concepts**

Introduction to financial statements and the concepts, principles and theories of asset valuation and income determination underlying their preparation. Analysis and interpretation of financial statements in the perspective of the management decision-making process.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 511 - Managerial Accounting**

Conceptual approach to managerial accounting's role in an organization. Emphasis on the use of accounting information for management decision making. Topics include accounting for planning and control purposes, behavioral implications associated with accounting informations, budgeting and various quantitative techniques available.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 514 - Managerial Foundations**

Introduction to professional management and foundation coverage of managerial skills, microeconomics, global competition, financial reporting, and business statistics.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 16

**Grade Mode:** Letter

## **MBA 515 - Internal and External Forces Impacting the Manager**

Examination of the range of internal and external forces that impact managerial decisions. Topics include global competition, the national and international economy, corporate information systems, foundation concepts in marketing, operations management, finance, people and organizations.

**Prerequisites & Notes:** MBA 514

**Credits:** 16

**Grade Mode:** Letter

## **MBA 516 - Managerial Decisions**

Links managerial decisions with specific functional areas of study such as marketing, operations, accounting, finance, and organizational behavior. The focus of these modules is cross-functional decision making in the context of global competition.

**Prerequisites & Notes:** MBA 515 or admission to the accelerated full-time MBA program.

**Credits:** 16

**Grade Mode:** Letter

## **MBA 520 - Seminar in Corporate Governance**

This course outlines the particular issues and mechanisms of contemporary corporate governance - the system by which companies are directed and controlled. The topic of corporate governance is elaborated from the institutional as well as organizational and managerial points of view, against the backdrop of an understanding of how corporate governance has evolved over time.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 523 - Negotiations and Labor Relations**



Analysis, explanation, and evaluation of negotiation in organizations. Application of negotiations to labor relations in unionized and non-unionized workplaces. Issues include pre-employment discussions, collective bargaining, arbitration, mediation, agency, renegotiating contracts, and multiparty discussions.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 524 - Management and Leadership Skills**

Interpersonal skill building in critical management areas including stress management, delegation, communication, power and influence, meetings and conflict management.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 525 - Seminar in Management**

Intensive examination of selected topics in management. Repeatable with different topics and course content.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 528 - Diversity in Organizations**

An examination of how diversity in organizations places increasingly complex demands and creates new opportunities for organizations in managing human capital.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 529 - Influence, Power and Politics in Organizations**

The analysis, explanation and evaluation of power and politics in organizations. Introduces frameworks for assessing the sources of power in organizations, the conditions that lead to its attainment, and its effective use from both a practical and an ethical perspective.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 532 - Marketing Strategy**

Integration of marketing principles with overall objectives of the organization. Concepts and analytical techniques facilitating marketing analysis and the development of strategic plans. Strategy formulation in product planning and development, distribution and promotion, marketing research, and consumer behavior.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics; MBA 509 or MBA 516.

**Credits:** 4

**Grade Mode:** Letter

**MBA 534 - Seminar in Marketing**

Focuses on selected traditional and contemporary topics in marketing theory, planning, strategy, management and practice. Repeatable with different topics and course content.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 535 - Buyer and Consumer Behavior**

An overview of the theories and research that underlie the analysis of buyer and consumer behavior central to the formulation of marketing tactics and strategic plans.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 539 - Seminar in International Business**

Intensive examination of selected topics in international business. Repeatable with different topics and course content.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 541 - Managerial Finance**

Theory and policy implications of financial decision making. Emphasis on valuation, long-term financing and investment/merger decisions.

**Prerequisites & Notes:** MBA 505, MBA 511; or MBA 516

**Credits:** 4

**Grade Mode:** Letter

# MASTER OF BUSINESS ADMINISTRATION

## **MBA 542 - Equity Markets and Portfolio Analysis**

An examination of investment risk and return, the operation of equity securities markets, equity valuation models, modern portfolio theory and portfolio management. Also includes capital market efficiency, stock options and mutual funds.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 543 - Financial Markets, Derivative Instruments and Risk Management**

A mix of seminars and case discussions are used to study the application of recent innovations in financial management. Includes financial futures and options as well as interest rate caps, floors, collars and swaps. Foreign currency risk exposure and management are studied in the context of international financial management. Other topics include pension fund design and management, asset securitization and financial distress.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 544 - Seminar in Finance**

Intensive examination of selected topics in finance. Repeatable with different topics and course content.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 551 - Managerial Economics**

Economic analysis provides the framework to consider the problems of resource allocations that confront managers in business, government and nonprofit environments. Topics include consumer choice and demand for products, production and cost functions, alternative market structures and the profit criteria for long-run planning and investment decisions.

**Prerequisites & Notes:** MBA 502, MBA 503, MBA 504; or MBA 516  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 555 - Seminar in Economics**

Intensive examination of selected topics in

economics. Repeatable with different topics and course content.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 562 - Taxation**

A continuation of taxation topics, with emphasis on compensation and retirement planning, estate, gift and trust taxation, and international taxation. Advanced research, planning, and tax policy are also a fundamental part of the course.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 565 - Seminar in Accounting**

Intensive examination of selected topics in accounting. Repeatable with different topics and course content.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 566 - Managerial Accounting and Control**

Seminar/case study course. Focus on managerial accounting topics such as responsibility centers and transfer pricing; budgeting; and analysis of performance. Examines managerial accounting in international, service and not-for-profit entities.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 567 - Financial Statement Presentation and Analysis**

Study of reporting issues from a management perspective. Introduction to the tools and techniques of financial statement analysis. Use of financial statements by external and internal decision makers. Emphasis on the development of communication and computer skills.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.  
**Credits:** 4  
**Grade Mode:** Letter

## **MBA 571 - Database Systems Design and Development**

Design, development, implementation, and administration of database management systems.

**Prerequisites & Notes:** MBA 516 or MBA 506.

**Credits:** 4

**Grade Mode:** Letter

**MBA 572 - Business Intelligence**

Business intelligence (BI) is a broad category of applications and technologies for gathering, sorting, analyzing, and providing access to data to help enterprise users make better business decisions. BI applications generally include: decision support systems, business analytics, performance management (key business indicators, scorecards, and dashboards), data warehouses, and data mining. The course will include both conceptual and skill components, including projects using appropriate software platforms.

**Prerequisites & Notes:** MBA 516

**Credits:** 4

**Grade Mode:** Letter

**MBA 573 - Project Management**

Explores the fundamental concepts and principles for understanding the processes found in project life cycle stages, such as starting and planning a project, running a project and delivering a project. Applies specific processes, tools and techniques to manage complexity and performance of projects in organizations.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 574 - Enterprise Resource Planning**

The course introduces students to the integrated business planning and execution systems currently in use by most large and medium-sized organizations. Although the course is taught primarily from the vantage point of the supply chain management function, the cross-functional nature of the topic requires discussion of the marketing, accounting, and human resources components of ERP as well. Students will also gain experience with SAP R/3 and a small-market ERP package.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 575 - Seminar in Decision Sciences**

Intensive examination of selected topics in decision sciences. Repeatable with different topics and course content.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 585 - Seminar in Environmental Management**

This course stresses the appropriateness of assessing the impact(s) of corporate action on the natural environment. Primary consideration will be given to the organizational implications of shifting from the traditional input-process-output ('cradle-to-grave') organization model to an input-process-output-input ('cradle-to-cradle') mindset. Strategic business opportunities associated with an evolving consumer environmental consciousness will be explored.

**Prerequisites & Notes:** Admitted Graduate Student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 591 - Strategic Management**

Study of administration and policy making from a top-management viewpoint. Integrates the marketing, financial, production and functional fields of management within a strategic management framework. Case study and simulation techniques used.

**Prerequisites & Notes:** MBA 516; or MBA 595 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

**MBA 594 - Introduction to Professional Management**

Explores the responsibilities and tasks of management, the characteristics of successful managers, various contexts of management, elements of strategic decision making at various levels of the organization, and an introduction to global business issues.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

**MBA 595 - Competing in a Global Environment**

Explores the effect of various aspects of globalization on markets, managers, and business

# MASTER OF BUSINESS ADMINISTRATION

strategy, with emphasis on both corporate and functional-level issues.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 598 - Business Consulting Capstone 1**

This first in a sequence of two four-credit capstone courses engages students in working on real business problems with companies of their choice in a 3-4 student team. MBA students work together as a consulting team with a client and advisor to develop solutions that will be put to use by the client. Student teams develop integrative analyses and recommendations, culminating with delivery of a final report and presentation to the client senior management.

**Prerequisites & Notes:** Admitted graduate student within College of Business and Economics.

**Credits:** 4

**Grade Mode:** Letter

## **MBA 599 - Business Consulting Capstone 2**

This second in a sequence of two four-credit capstone courses engages students in working on real business problems with companies of their choice in a 3-4 student team. MBA students work together as a consulting team with a client and advisor to develop solutions that will be put to use by the client. Student teams develop integrative analyses and recommendations, culminating with delivery of a final report and presentation to the client senior management.

**Prerequisites & Notes:** MBA 598

**Credits:** 4

**Grade Mode:** Letter

# College of Fine and Performing Arts

## Introduction

Dr. Kit Spicer, Dean

The College of Fine and Performing Arts, consisting of the departments of art, design, music, and theatre and dance, provides an educational environment for enhancing the creation, development, performance and teaching of the fine and performing arts and design. Through its facilities and programs, the College has a strong presence on campus. The University's Concert Hall, the Mainstage Theatre, and more intimate performance venues are housed in the College, as well as classrooms, art studios, design labs, the PAC Galleries, and the Western Gallery. The College also is responsible for public art throughout the campus in the form of the internationally recognized Outdoor Sculpture Collection.

The goal of the College of Fine and Performing Arts is to nurture a comprehensive understanding of the languages of dance, visual art, theatre, design and music in order to create thinking artists and artistic thinkers who will shape culture in the 21st century.

To fulfill this mission, the College of Fine and Performing Arts maintains a viable connection with the liberal arts tradition of the University; equips students with the creative and intellectual tools necessary for success in the arts; enables students to value, understand, and challenge traditional concepts; maintains an environment that supports diversity, reflection, and dedication to creative pursuits; promotes critical thinking, innovative ideas and active arts leadership; provides world class and multicultural experiences in the arts for both students and members of the community; and prepares students for a dynamic, lifelong relationship with the arts.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Art and Art History	BA, BAE, BFA
Design	BA, BFA
Music	BA, B/Mus, M/Mus
Theatre and Dance	BA, BFA

## Majors/Minors

In addition to the General University Requirements and other common degree requirements, a candidate for a bachelor's degree must complete a major from one of the departments within the

College of Fine and Performing Arts. Minors are also offered in art, dance, music, and theatre arts.

## Student/Faculty-Designed Major

The student/faculty-designed major is a major for a bachelor's degree granted by the College of Fine and Performing Arts. Each major is approved by the Curriculum Committee of the College of Fine and Performing Arts. Approval should come after 45 — and before 90 — credits are completed.

Potential candidates for this degree should contact the College of Fine and Performing Arts Dean's Office for information.

## College Admission and Advisement

### Admission

A student is admitted to the College of Fine and Performing Arts when he or she has been admitted to Western Washington University and has officially declared and been accepted as a major, and who has passed portfolio review or the audition required in the various discipline areas of the College. Advising is provided in the individual departments.

### Requirements for Bachelor's Degree

Besides the general requirements for graduation from the University, explained elsewhere in this catalog, the College of Fine and Performing Arts has the following specific requirements:

The Bachelor of Music degree may require more than the usual 180 credit hours.

The Bachelor of Fine Arts degree is the professional undergraduate degree requiring study beyond the normal four years.

### Department Chairs

Julia Sapin	Art and Art History
Elsi Vassdal-Ellis	Design
Christopher Bianco	Music
Beth Leonard	Theatre and Dance

## Other College Information

### Departments, Courses and Programs

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online Timetable of Classes, and Extended Education bulletins.

## Minor

### Arts Enterprise and Cultural Innovation Minor

College of Fine and Performing Arts

**28 credits**

#### Introduction

The Arts Enterprise and Cultural Innovation Minor is discipline specific to the visual and performing arts and design, with practice and critical theory incorporated from each department and creative discipline. The minor prepares students for an entry into a vocation and career that they design as creative professionals; based on their knowledge of self (person), knowledge of their practiced discipline (practice) and knowledge of the public spaces in which they will operate (public). There are seven courses, each four credits, for a total of 28 credits. At the conclusion of the minor students will integrate Person, Practice and Public into a student-generated culminating project that serves as a bridge to their post-undergraduate work. The concluding capstone has two separate tracks: a product/service track and an arts/performance track. Upon completing a major within the College of Fine and Performing Arts with a minor in Arts Enterprise and Cultural Innovation, students will possess the knowledge of their specific creative disciplines and the knowledge and abilities needed to develop and monetize their own unique creative attributes.

#### Why Consider an Arts Enterprise and Cultural Innovation Minor?

The Arts Enterprise and Cultural Innovation Minor is specific to the visual and performing arts and design. The minor prepares students for entry into a vocation and career that they design as creative professionals based on their knowledge of self (person), knowledge of their practiced discipline (practice) and knowledge of the public spaces in which they will operate (public). Upon completing a major within the College of Fine and Performing Arts with a minor in Arts Enterprise and Cultural Innovation, graduates will possess the knowledge and skills needed to develop and monetize their own unique creative attributes.

#### Contact Information

##### CFPA Office of the Dean

Performing Arts 361

360-650-6144 or

360-650-6166

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

To apply to the AECI Minor, students must be declared as a major or pre-major within the CFPA. Students must be a sophomore to declare and complete the AECI application process. Application deadline for the AECI Minor is Feb. 15, 2017, and completed forms must be received in the CFPA Dean's Office by that date.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- AECI 301 - Person and Public
- AECI 302 - Emergent Leadership
- AECI 303 - Conducting the Enterprise
- AECI 304 - Internship
- AECI 405 - Arts Management
- AECI 406 - Disruption

□ AECI 407 - Capstone Lab

## Arts Enterprise and Cultural Innovation Courses

### AECI 301 - Person and Public

The initial course in the Arts Enterprise and Cultural Innovation (AECI) minor sequence. This course develops the foundational tools and best practices to be used in creative self, team and project leadership, with an accomplished creative practice at the core of the enterprise. Includes overview of personality theory, research on the creative personality, and stakeholder analysis and mapping to develop effective, creative self and team leadership skills.

**Prerequisites & Notes:** CFPA major or departmental approval; junior status; and acceptance into the AECI minor.

**Credits:** 4

**Grade Mode:** Letter

### AECI 302 - Emergent Leadership

The second course in the Arts Enterprise and Cultural Innovation (AECI) minor sequence. This course explores emergent leadership models and builds on the previous course to develop leadership within networked and distributed organizations and groups. Frameworks of collaboration and creative conflict are explored to give function to the activity within a creative enterprise.

**Prerequisites & Notes:** CFPA major or departmental approval; AECI 301.

**Credits:** 4

**Grade Mode:** Letter

### AECI 303 - Conducting the Enterprise

The third course in the Arts Enterprise and Cultural Innovation (AECI) minor sequence. Frameworks for arts organization formation and financing are explored. This course will enable creative leaders to measure the financial standing of an enterprise, test ideas and assumptions from a fiduciary perspective and fund and market projects and practices using contemporary frameworks and best practices.

**Prerequisites & Notes:** CFPA major or departmental approval; AECI 302.

**Credits:** 4

**Grade Mode:** Letter

### AECI 304 - Internship

Supervised work experience wherein the student makes an embedded contribution to a recognized formal creative enterprise under the direction and supervision of qualified practitioners. Student or program facilitated, experiential, applied learning opportunity. Existing internship experiences as defined within a CFPA major are applicable (eg. design internships).

**Prerequisites & Notes:** CFPA major or departmental approval; AECI 303.

**Credits:** 4

**Grade Mode:** Letter

### AECI 405 - Arts Management

The fourth course in the Arts Enterprise and Cultural Innovation (AECI) minor sequence. Iteration, emergent strategy, design thinking and discovery-driven growth are established as guiding frameworks for arts organizations, projects and artists. Students will understand how these frameworks operate, how to select a framework for a given situation, and how to implement the appropriate framework in ambiguous, real world circumstances.

**Prerequisites & Notes:** CFPA major or departmental approval; AECI 303.

**Credits:** 4

**Grade Mode:** Letter

### AECI 406 - Disruption

The fifth course in the Arts Enterprise and Cultural Innovation (AECI) minor sequence. Disruption in the context of the creative enterprise is the result of a highly creative initiative that achieves a rift in the existing market patterns and results in a deep penetration and resonance with the audience. This course examines the frameworks that support creative disruption, and generate positive outcomes from disruption-initiated activity.

**Prerequisites & Notes:** CFPA major or departmental approval; AECI 405.

**Credits:** 4

**Grade Mode:** Letter

### AECI 407 - Capstone Lab

The culminating course in the Arts Enterprise and Cultural Innovation (AECI) minor sequence. The Capstone Lab begins with a comprehensive exam covering critical frameworks from across the five content driven course prerequisites. After completing the exam, students will develop a project or practice and take it through the process of evaluating it in terms of risk and uncertainty,

## COLLEGE OF FINE AND PERFORMING ARTS

building a basic business model, developing an emergent strategy, and following a design thinking process to solve problems.

**Prerequisites & Notes:** CFPA major or departmental approval; AECI 406.

**Credits:** 4

**Grade Mode:** Letter



# Art and Art History

## Introduction

The Department of Art and Art History offers programs in three interrelated areas of study: art studio, art education and art history. The programs are designed to enhance artistic and intellectual inquiry across and within disciplines. The programs, classes and workshops combine practice in visual skills with rigorous critical analyses, providing an environment that fosters lively dialog and energetic engagement. With innovative and well-established approaches to teaching, artists, art historians and art educators teach a variety of courses that include art education, art history, art theory and criticism, ceramics, digital/time based media, drawing/painting, fibers/fabrics new media, photography, printmaking and sculpture. The faculty is dedicated to the preparation and sponsorship of students in their post-graduate careers as professional artists, curators, and art historians and educators.

The Department of Art and Art History offers Bachelor of Arts degrees in art studio, and art history. A Bachelor of Fine Arts degree in art is available in art studio. A Bachelor of Arts in Education degree is available through Woodring College of Education.

## Faculty

**JULIA SAPIN** (2003) Chair and Associate Professor. BA, University of Texas; MA, PhD, University of Washington.

**GARTH AMUNDSON** (2000) Professor. BA, Central Washington University; MFA, Syracuse University.

**JAVIER BERZAL de DIOS** (2014) Assistant Professor. BA, MA, Queens College; PhD, Ohio State University.

**CYNTHIA CAMLIN** (2008) Associate Professor, BA, Duke University; MA, The University of Virginia; Post BA, Yale University; MFA, The University of Texas at Austin.

**PIERRE GOUR** (2013) Assistant Professor. BFA, Concordia University; MFA, University of New Mexico.

**GAYE LEIGH GREEN** (1996) Professor. BA, California State University; MA, Stanford University; PhD, Pennsylvania State University.

**CARA JAYE** (1997) Professor. BFA, Parsons School of Design; MFA, University of Colorado.

**RYAN KELLY** (2016) Assistant Professor. BFA, Kansas City Art Institute; MFA; Ohio State University.

**MONIQUE KERMAN** (2015) Assistant Professor. BA, University of Kentucky; MA, University of Arizona; PhD, University of London.

**SEBASTIAN MENDES** (2001) Professor. BA, University of California-Santa Cruz; Postgraduate Certificate of Advanced Studies, University of the Arts, London; MFA, Stanford University.

**BARBARA MILLER** (2000) Professor. BA, Simon Fraser University; MA, PhD, University of Rochester.

**SEIKO ATSUTA PURDUE** (2002) Associate Professor. BFA, Kyoto Seika University; MA, Montclair University; MFA, the School of the Art Institute of Chicago.

**LISA TURNER** (2015) Assistant Professor. BFA, NSCAD University, Halifax, NS; MFA, University of Alberta.

**CHRIS E. VARGAS** (2014) Assistant Professor. BA, University of California-Santa Cruz; MFA, University of California-Berkeley.

## Gallery Director

**HAFTHOR YNGVASON** (2015) BA, University of Iceland; MA, University of New Mexico; MA, Boston University.

## Adjunct Faculty

**HAFTHOR YNGVASON** (2015) BA, University of Iceland; MA, University of New Mexico; MA, Boston University.

**PAUL BROWER** (1989)

## Application Requirements: Studio Art and Art Education

Most classes in the Studio areas are restricted to majors only. To access classes in these areas, an online application to the Department of Art and Art History is required. Most classes in the Studio area are restricted to majors only. To access classes in this area, an online application to the Department of Art and Art History is required at [cfpa.wvu.edu/art/admissions](http://cfpa.wvu.edu/art/admissions). The application will include a portfolio of recent work and an unofficial transcript of any college-level courses already taken. **Application Deadlines:** Application deadlines are by midnight on October 15 and January 31. Portfolios must be received by the deadlines.

For application and information: [cfpa.wvu.edu/art](http://cfpa.wvu.edu/art).

Studio and Art Education majors must complete a plan of study with a department advisor before enrolling in any 200-level course.

## Application Requirements: Art History

To apply to the art history major, students must have taken A/HI 275 and two 200-level art history surveys or pre-approved equivalent courses. Students must have a B average or higher in these classes to be considered for the art history program. Application deadlines for the art history major are October 15 and January 31 and

## ART AND ART HISTORY

completed forms must be received in the Department of Art and Art History by those dates.

For application and information: [cfpa.wvu.edu/art](http://cfpa.wvu.edu/art).

### Other Departmental Information

#### Scholarships

The Department of Art and Art History offers a limited number of scholarships to recognize individual talents, promise, and meritorious achievement. The J. Ruth Kelsey Scholarship and the McIntyre Gorrell Scholarship are among other scholarships offered in the Department of Art and Art History. Please consult the scholarship brochure available through Student Financial Resources for information on other scholarships.

#### Western Gallery and Outdoor Sculpture Collection

The internationally known Outdoor Sculpture Collection includes works by international, national and regional artists, such as Magdalena

Abakanowicz, Alice Aycock, Anthony Caro, Mark di Suvero, Nancy Holt, Donald Judd, Robert Morris, Bruce Nauman, Isamu Noguchi, Tom Otterness, Beverly Pepper, and Richard Serra.

The Western Gallery provides diverse experiences in the visual arts for its constituencies, encompassing the University community and region while providing a point of reference to the national and international art scene. Through historical, contemporary and experimental art exhibitions, through the outdoor collection of contemporary sculpture, through the publications and through interpretative interdisciplinary programs, the Western Gallery is committed to creating an environment for learning. The gallery acts as a center for discussion and exchange of ideas on critical issues in contemporary art. The Western Gallery recognizes its role in expanding its audience's awareness of the visual arts as central to the dynamic and pluralistic nature of our society. Individuals interested in supervised work in the gallery are encouraged to volunteer their services.

## Bachelor of Arts

### Art History, BA

Department of Art and Art History, College of Fine and Performing Arts

**68 credits**

#### Introduction

Art History examines the histories of art in cultural context, visual communication in the world today, and the impact of visual technology in the future. The Art History major gives students the opportunity to address social, cultural and transnational issues through an engagement with visual culture objects, images and ideas and to imagine critical intersections in the arts, humanities, and sciences by means of innovative course instruction. Art history classes are catalysts through which students make cross-connections between their major areas of study and the diverse perspectives found in visual forms of communication.

#### Why Consider an Art History Major?

Are you interested in the visual language of culture and systems of representation? In studying Art History, you will learn to interpret and analyze art and visual culture. A degree in Art History will prepare you for a future as teacher, museum educator, gallery curator, visual resource librarian, art critic, scholar, and other careers that require creative problem solving and knowledge of visual language.

#### Contact Information

##### Department Chair

Julia Sapin  
Fine Arts 116  
360-650-3660  
[Julia.Sapin@wvu.edu](mailto:Julia.Sapin@wvu.edu)

##### Art Major Information

Fine Arts 116  
360-650-3660  
[ArtInfo@wvu.edu](mailto:ArtInfo@wvu.edu)

#### Sample Careers

Art Consultant | Curator | Gallery or Museum Director | Art Critic | Architectural Conservator | Art Dealer | Art Historian | Researcher | Visual Resource Librarian | Arts Administrator | Museum Educator

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

**How to apply:** To apply to the Art History major, students must have taken A/HI 275 and two 200-level art history surveys or pre-approved equivalent courses. Students must have a B average or higher in these classes to be considered for the art history program.

**Application deadlines:** Application deadlines for the Art History major are October 15 and January 31. Completed forms must be received in the Department of Art and Art History by those dates.

**Advising Tips:** Students are expected to follow all prerequisite requirements for courses and seek early departmental advisement. As students enter the program they will be assigned an advisor to develop an individualized course of study. This plan becomes an outline of the degree requirements but should be revised yearly in consultation with an advisor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- A/HI 275 - Introduction to Writing and Critical Thinking
- A/HI 375 - Methods in Art History
- A/HI 475 - Senior Projects/Practicum  
(the above courses must be taken in sequence)
- One 100-level course (5 credits) from:
  - ART 110 - Foundation Drawing I
  - ART 120 - 2-Dimensional Art
- One course (3 credits) from:
  - A/HI 210 - History of Architecture
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
- One course (3 credits) from:
  - A/HI 230 - Visual Culture in 15th and 16th Century Europe
  - A/HI 231 - Visual Culture in 17th and 18th Century Europe
- One course (3 credits) from:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- One course (3 credits) from:
  - A/HI 250 - African Visual Culture from Prehistory to Present
- One course (3 credits) from:
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia
- One additional course from:
  - A/HI 210 - History of Architecture
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
  - A/HI 230 - Visual Culture in Western Europe from 1400-1500
  - A/HI 231 - Visual Culture in Western Europe 1550-1700
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - A/HI 250 - African Visual Culture from Prehistory to Present
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia

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☐ Choose 30 credits of 300-or 400-level art history courses from the following list of courses. A minimum of 10 credits at the 400 level is required. (A/HI 300, 302, 305 and 306 are not accepted toward the major.)

- A/HI 301 - Modern Art and Modernism
- A/HI 308 - Visual Arts in the Community
- A/HI 310 - Indigenous Arts of the Pacific Northwest
- A/HI 313 - Art and Technology
- A/HI 315 - Early Modern Civic Identity: Special Topics
- A/HI 316 - Land and Landscape
- A/HI 330 - Art and Texts of the Sacred
- A/HI 358 - Postwar Art and Culture
- A/HI 360 - Nationalism and Cultural Identity, 19th and 20th Centuries
- A/HI 368 - Pacific Arts and Visual Culture
- A/HI 370 - Islamic Visual Cultures
- A/HI 371 - Transforming Traditions: Art and Visual Culture in Japan
- A/HI 397
- A/HI 401 - Contemporary Issues and Post-Modern Critiques
- A/HI 411 - Contemporary Japanese Visual Culture
- A/HI 413 - Space and Representation
- A/HI 415 - Space and the Urban Environment
- A/HI 416 - Borders and Terrains
- A/HI 420 - Building 17th and 18th Century Europe
- A/HI 429 - Patronage and Power: The Baroque Era
- A/HI 430 - Court Art of the Renaissance
- A/HI 431 - Popular Culture, Tourism and Leisure
- A/HI 438 - Art and Feminism
- A/HI 440 - New Media and Digital Art
- A/HI 450 - Cross-Cultural Representation
- A/HI 489 - Architecture and Museums
- A/HI 490 - Seminar: Exhibition Theory and Practice
- A/HI 497

☐ Students are strongly encouraged to take courses outside of the art history area, such as computer technologies, modern and classical languages, anthropology, film, communication or other classes to complement their studies and provide better preparation for the diversity of careers that employ skills with visual language.

### Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

### Art Studio, BA

Department of Art and Art History, College of Fine and Performing Arts

#### 67 credits

#### Introduction

Art Studio includes ceramics, drawing/painting, fiber/fabrics, mixed media, photography, printmaking and sculpture. The objectives of the major are to investigate the function of art and the relationships between art, culture, artist and audience. Art studio classes are designed to familiarize students with the principles that shape and inform visual literacy and expression through a variety of practices in art making.

#### Why Consider an Art Studio Major?

To learn to create, interpret, analyze, and make informed judgments about art, studio concepts, and practices.

Contact Information

**Department Chair**

Julia Sapin  
 Fine Arts 116  
 360-650-3660  
 Julia.Sapin@wwu.edu

**Art Major Information**

Fine Arts 116  
 360-650-3660  
 ArtInfo@wwu.edu

**Sample Careers**

Art Educator | Exhibiting Artist | Exhibit Designer | Gallery Director | Photographer | Curator

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Most classes in the Studio area are restricted to majors only. To access classes in this area, an online application to the Department of Art and Art History is required at [cfpa.wwu.edu/art/admissions](http://cfpa.wwu.edu/art/admissions). The application will include a portfolio of recent work and an unofficial transcript of any college-level courses already taken.

**Application Deadlines:** Application deadlines are by midnight on October 15 and January 31.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- ART 109 - Visual Dialogue
- ART 110 - Foundation Drawing I
- ART 120 - 2-Dimensional Art
- ART 203 - Foundation Drawing II
- ART 230 - 3-Dimensional Art
- 9 credits from the following:
  - One course from:
    - A/HI 220 - Visual Culture in Ancient Greece and Rome
    - A/HI 221 - Visual Culture in Medieval Europe
  - One course from:
    - A/HI 230 - Visual Culture in 15th and 16th Century Europe
    - A/HI 231 - Visual Culture in 17th and 18th Century Europe
  - One course from:
    - A/HI 240 - Visual Culture in Western Europe in the 19th Century
    - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - One course from:
    - A/HI 270 - Visual Culture in South and Southeast Asia
    - A/HI 271 - Visual Culture in East Asia
- 15 credits of 300- or 400-level art studio courses in area of selected concentration
- 5 credits of 300- or 400-level art studio or design electives
- 5 credits from:
  - ART 494 - Advanced Studio Seminar
  - ART 495 - Professional Practices for Studio Artist
- 10 credits of 300- or 400-level art history

**Departmental Honors**

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Bachelor of Arts in Education

### Art — Elementary, BAE

Department of Art and Art History, College of Fine and Performing Arts

**48 credits**

#### Introduction

The broad instructional concept is to integrate the components of art history, art criticism, and studio art courses, university courses, Gallery Exhibition Program and the permanent collection. The student learns to interpret, analyze and make intelligent judgments about art as well as learning the skills and concepts of the studio. A grasp of the dynamic nature of a culture and the continuing extension of its visual language is a fundamental objective.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider an Art-Elementary Major?

The B.A.Ed. in Art will prepare you to teach students at the elementary grade level. The program will introduce you to curricular design in the arts and the 4 components of Discipline Based Art Education which is an approach to the teaching of Art Education that encompasses criticism, history, aesthetics, and art studio.

#### Contact Information

##### Department Chair

Julia Sapin  
Fine Arts 116  
360-650-3660  
Julia.Sapin@wwu.edu

##### Elementary Educational Professional Program Information

Miller Hall 300  
360-650-3336  
<https://wce.wwu.edu/eled/elementary-education>

##### Art Major Information

Fine Arts 116  
360-650-3660  
ArtInfo@wwu.edu

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<https://wce.wwu.edu/admission>

##### Elementary Education Program Manager

Miller Hall 301D  
360-650-7948

#### Sample Careers

Art Educator | Art Therapy

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Most classes in the Studio area are restricted to majors only. To access classes in this area, an online application to the Department of Art and Art History is required at [cfpa.wwu.edu/art/admissions](http://cfpa.wwu.edu/art/admissions). The application will include a portfolio of recent work and an unofficial transcript of any college-level courses already taken. **Application Deadlines:** Application deadlines are by midnight on October 15 and January 31.

#### Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

## Requirements

- ART 109 - Visual Dialogue
- ART 110 - Foundation Drawing I
- ART 120 - 2-Dimensional Art
- 200-level courses (10 credits):
  - ART 203 - Foundation Drawing II
  - ART 230 - 3-Dimensional Art
- Studio courses (10 credits):
  - ART 331 - Sculpture-Wood
  - ART 340 - Ceramics I
  - ART 341 - Ceramics II
  - ART 350 - Printmaking I
  - ART 360 - Fibers and Fabrics I
  - ART 361 - Surface Design
  - ART 370 - B&W Photography I
- Art Education Requirement:
  - ART 380 - Art Educating the Child
- Art History Requirement, select 12 credits from (choose one course from each group):
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
  - AND
  - A/HI 230 - Visual Culture in 15th and 16th Century Europe
  - A/HI 231 - Visual Culture in 17th and 18th Century Europe
  - AND
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - AND
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia

## Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning

## ART AND ART HISTORY

- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

### Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Art — P-12, BAE

Department of Art and Art History, College of Fine and Performing Arts

### 70 credits

#### Introduction

The broad instructional concept is to integrate the components of art history, art criticism, and studio art courses, university courses, Gallery Exhibition Program and the permanent collection. The student learns to interpret, analyze and make intelligent judgments about art as well as learning the skills and concepts of the studio. A grasp of the dynamic nature of a culture and the continuing extension of its visual language is a fundamental objective.

This major must be accompanied by the professional preparation program in secondary education and leads to an endorsement in visual arts. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.



## Why Consider an Art P-12 Major?

Students choose to study art in order to understand the history, traditions and conventions of art and art criticism, for herein lies the intelligible language of art and the heritage of humankind. The B.A. Ed. in Art will prepare you to teach this language and heritage to students, from pre-school to 12th grades. The program will introduce you to curricular design in the arts and the 4 components of Discipline Based Art Education which is an approach to the teaching of Art Education that encompasses criticism, history, aesthetics, and art studio.

Contact Information		
<b>Department Chair</b> Julia Sapin Fine Arts 116 360-650-3660 Julia.Sapin@wwu.edu	<b>Art Major Information</b> Fine Arts 116 360-650-3660 ArtInfo@wwu.edu	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 wce.wwu.edu/admissions/secondary-education
<b>Secondary Education website</b> wce.wwu.edu/sec/secondary-education	<b>Secondary Education Program Coordinator</b> Christina Carlson Miller Hall 401A 360-650-3327 Christina.Carlson@wwu.edu	<b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu

### Sample Careers

Art Educator | Art Therapy

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Most classes in the Studio area are restricted to majors only. To access classes in this area, an online application to the Department of Art and Art History is required at [cfpa.wwu.edu/art/admissions](http://cfpa.wwu.edu/art/admissions). The application will include a portfolio of recent work and an unofficial transcript of any college-level courses already taken. **Application Deadlines:** Application deadlines are by midnight on October 15 and January 31.

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

## Requirements

- ART 109 - Visual Dialogue
- ART 110 - Foundation Drawing I
- ART 120 - 2-Dimensional Art
- ART 381 - Theories and Teaching Strategies in Art Education
- Art History (15 credits):
  - A/Hi 220 - Visual Culture in Ancient Greece and Rome
  - A/Hi 221 - Visual Culture in Medieval Europe
  - A/Hi 230 - Visual Culture in 15th and 16th Century Europe
  - A/Hi 231 - Visual Culture in 17th and 18th Century Europe
  - A/Hi 240 - Visual Culture in Western Europe in the 19th Century
- 200 level studio courses (10 credits):
  - ART 203 - Foundation Drawing II
  - ART 230 - 3-Dimensional Art
- A selection of 5 studio courses (25 credits):
  - ART 320 - Painting I
  - ART 322 - Painting II
  - ART 324 - Figure Painting
  - ART 325 - Experimental Painting
  - ART 331 - Sculpture-Wood
  - ART 340 - Ceramics I
  - ART 341 - Ceramics II

## ART AND ART HISTORY

- ART 350 - Printmaking I
- ART 351 - Printmaking: Relief
- ART 352 - Printmaking: Stone Lithography
- ART 353 - Printmaking: Etching
- ART 360 - Fibers and Fabrics I
- ART 361 - Surface Design
- ART 362 - Papermaking and Mixed Media
- ART 367 - Advanced Weaving
- ART 370 - B&W Photography I
- ART 371 - B&W Photography II
- ART 372 - Color Photography
- ART 373 - Photography Alternative Processes
- Art History (3 credits, selected from the following):
  - A/Hi 270 - Visual Culture in South and Southeast Asia
  - A/Hi 271 - Visual Culture in East Asia
  - A/Hi 310 - Indigenous Arts of the Pacific Northwest
  - A/Hi 368 - Pacific Arts and Visual Culture
  - A/Hi 370 - Islamic Visual Cultures
  - A/Hi 371 - Transforming Traditions: Art and Visual Culture in Japan
  - A/Hi 411 - Contemporary Japanese Visual Culture

### Additional Requirements

#### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Bachelor of Fine Arts

### Art Studio, BFA

Department of Art and Art History, College of Fine and Performing Arts

**116 credits**

### Introduction

The Bachelor of Fine Arts degree is the professional undergraduate art degree. It is an expanded undergraduate degree that requires each student to undertake a program of 49 credits of coursework beyond the Art Studio, Bachelor of Arts major, and to complete a self-determined body of artwork for exhibition.

### Why Consider an Art Studio Major and a Bachelor of Fine Arts Major?

To continue beyond the Art Studio, BA degree and learn to create, interpret, analyze, and make informed judgments about art, studio concepts and practices at an advanced level.

Contact Information	
<b>Department Chair</b> Julia Sapin Fine Arts 116 360-650-3660 Julia.Sapin@wwu.edu	<b>Art Major Information</b> Fine Arts 116 360-650-3660 ArtInfo@wwu.edu
Sample Careers	
Art Educator   Exhibiting Artist   Exhibit Designer   Gallery Director   Photographer   Curator	
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

### How to Declare (Admission and Declaration Process):

Application deadline will be announced and posted online during spring quarter. Most classes in the Studio area are restricted to majors only. To access classes in this area, an online application to the Department of Art and Art History is required at [cfpa.wwu.edu/art/admissions](http://cfpa.wwu.edu/art/admissions). The application will include a portfolio of recent work and an unofficial transcript of any college-level courses already taken.

Following acceptance to the BFA program, a committee of at least two Art faculty members will be formed to work with the student throughout the year. An additional faculty member from outside the Department may be invited by the student to serve on his or her committee. Studio faculty must approve the third committee member. All students must begin their BFA studies in the fall quarter.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Completion of the Art, Bachelor of Arts course study
- 5 credits from:
  - ART 496A - BFA Seminar A
  - ART 496B - BFA Seminar B
- 9 credits of ART 492 - BFA Project / Exhibition
- 5 credits from:
  - ART 494 - Advanced Studio Seminar
  - ART 495 - Professional Practices for Studio Artist
- 10 credits of studio practice in areas of focus
- 10 credits of 300- or 400-level art history
- 10 credits of electives specific to course study
- Fall, Winter, and Spring faculty committee reviews
- Spring faculty committee review and final exhibition

### Additional Requirements:

During the BFA program students spend three quarters creating a self-determined body of artwork. Attention is given to the medium(s), method(s), and the content of the creative activity. Evaluation by the student's full committee occurs during Fall, Winter, and Spring quarters. At the culmination of the project each student is required to exhibit their completed work in a one or two-person exhibition. In addition, the student is required to submit a research-driven artist's statement that supports the individual's own intellectual and creative

# ART AND ART HISTORY

achievement. The student's final review with full committee will be scheduled during the period of the student's exhibition. This is an opportunity for the student to discuss and defend their work.

Failure to meet these requirements on schedule will be considered as unsatisfactory progress and may result in the student completing the Bachelor of Arts degree only.

## Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Minor

### Art History Minor

Department of Art and Art History, College of Fine and Performing Arts

#### 27 credits

Contact Information	
<b>Department Chair</b> Julia Sapin Fine Arts 116 360-650-3660 Julia.Sapin@wwu.edu	<b>Art Minor Information</b> Fine Arts 116 360-650-3660 ArtInfo@wwu.edu
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

#### How to Declare (Admission and Declaration Process):

Fill out a minor declaration card in the Art and Art History Office, FI 116.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

Choose one 200-level course from four of the following five categories:

- I:
  - A/HI 210 - History of Architecture
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
- II:
  - A/HI 230 - Visual Culture in 15th and 16th Century Europe
  - A/HI 231 - Visual Culture in 17th and 18th Century Europe
- III:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- IV:
  - A/HI 250 - African Visual Culture from Prehistory to Present
- V:
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia

Three additional art history courses (15 credits) at the 300 or 400 level. A/HI 397 and A/HI 497 courses can be counted toward the upper division credits for the minor. A/HI 305 and 306 may not be used for Art History minor

## STEAM (Science, Technology, Engineering, Art and Mathematics) Minor

Department of Art and Art History, College of Fine and Performing Arts

**23-25 credits**

### Introduction

The STEAM minor adds the Arts to the traditional STEM (Science, Technology, Engineering, Mathematics) framework in order to facilitate an understanding of the interrelationship between STEM fields and Art. Integrating visual experience with scientific processes can: provide students with the means to explore visual expression through technology, demonstrate the relationship between STEM concepts and the Arts and exemplify how the arts can enhance scientific understanding through processes such as visualization and creative problem solving.

#### Contact Information

##### Department Chair

Julia Sapin  
Fine Arts 116  
360-650-3660  
Julia.Sapin@wwu.edu

##### Art Minor Information

Fine Arts 116  
360-650-3660  
ArtInfo@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students submit an application outlining their reasons for completing a minor in STEAM and how the curricular content will enhance their major degree. Applications can be found at [cfpa.wwu.edu/art/admissions](http://cfpa.wwu.edu/art/admissions). Minimum 2.5 GPA.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Choose one or more of the following art classes:
  - ART 101 - Glass Blowing I
  - ART 102 - Glass Blowing II
  - ART 360 - Fibers and Fabrics I
  - ART 367 - Advanced Weaving
  - ART 370 - B&W Photography I
  - ART 371 - B&W Photography II
  - ART 372 - Color Photography
  - ART 373 - Photography Alternative Processes
  - ART 385 - Time-Based Art
  - ART 386 - Experimental Video Production: Narrative and Documentary
  - ART 397 courses can be used under advisement.
- Choose one or more of the following art history classes:
  - A/HI 210 - History of Architecture
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - A/HI 313 - Art and Technology
  - A/HI 397 classes can be used under advisement.
  - A/HI 413 - Space and Representation
  - A/HI 440 - New Media and Digital Art

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- ❑ Choose one or more of the following classes:
  - CSCI 103 - Introduction to Computer Game Development
  - DSGN 111 - Design View
  - MATH 160 - Mathematics and Art
- ❑ Remaining number of credits can be filled by any of the courses listed in the STEAM Minor.

### Art Courses

#### ART 101 - Glass Blowing I

Develop proficiency with glass blowing concepts and techniques through exploration of the art form and design. Repeatable to a maximum of 12 credits, including original course.

**Credits:** 4  
**Grade Mode:** Letter

#### ART 102 - Glass Blowing II

Continued development of proficiency with glass blowing concepts and techniques through exploration of the form and design; focus on the creation of original glass work derived from research and drawing. Students' technical study will be complemented by critical discourse about glass in contemporary art. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** ART 101  
**Credits:** 4  
**Grade Mode:** Letter

#### ART 109 - Visual Dialogue

Open to all students with the exception of a number of seats reserved for art majors each quarter. Art studio pre-majors are advised to take ART 109 in their first or second quarter concurrently with ART 110. Introduction to ideas and artists in 20th century art with an emphasis on the contemporary. Examines concepts of content, meaning, and cultural interrelationships in art, and questions the nature, function, and importance of art in contemporary society.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

#### ART 110 - Foundation Drawing I

This course focuses on the techniques and materials of drawing. The course includes figure drawing, perspective studies and drawing from memory and the imagination. The concept of drawing as a means of conveying ideas is emphasized.

**Prerequisites & Notes:** Open to non-Art majors after Phase I registration.

**Credits:** 5  
**Grade Mode:** Letter

#### ART 111 - Drawing for Non-Majors

This course is for all students interested in gaining a studio art experience, and who may not have any prior background in visual art making. The course focuses on the techniques and materials of drawing. The course includes figure drawing, perspective studies and drawing from memory and the imagination. The concept of drawing as a means of conveying ideas is emphasized.

**Prerequisites & Notes:** If a student becomes an art major this course can fulfill the requirement for ART 110.  
**Credits:** 5  
**Grade Mode:** Letter

#### ART 120 - 2-Dimensional Art

This course introduces visual problem solving by exploring the elements and principles of design and color. Traditional and digital applications are integrated throughout all aspects of the coursework.

**Prerequisites & Notes:** Open to non-Art majors after Phase I registration.  
**Credits:** 5  
**Grade Mode:** Letter

#### ART 203 - Foundation Drawing II

Examines the definition of drawing in the 21st century and explores contemporary approaches to drawing. Seeks to broaden the conceptual and technical basis for students' work and investigate a broad range of materials and traditions, including abstraction, observation, collage, imagination, color and mixed media on paper. Experimentation with tools and techniques and in developing an individual system for artistic expression.

**Prerequisites & Notes:** ART 109; ART 110; ART 120.  
**Credits:** 5  
**Grade Mode:** Letter

#### ART 230 - 3-Dimensional Art

Entry-level 3D course with emphasis on introducing methods, materials and ideas pertaining to current practices in 3D art. Fundamental concepts and techniques will be

explored through hands-on projects in media ranging from fibers, ceramics, wood, metal and other media associated with the making of 3D art. This course will introduce the idea of sculpture and art forms as bearers of content.

**Prerequisites & Notes:** ART 109; ART 110; ART 120.

**Credits:** 5

**Grade Mode:** Letter

### **ART 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ART 302 - Instructional Assistant**

Assist faculty in the classroom and with activities such as lecture preparation, class website upkeep, classroom/lab maintenance, classroom discussion, research, and reviews for exams. Duties vary by course and instructor, but the time commitment will be 3-9 hours/week.

**Credits:** 1-3

**Grade Mode:** Letter

### **ART 303 - Drawing Projects**

Students explore theme and concept in drawing through individual development with a variety of media, tools, and techniques. Studio work is complemented by in-depth discussion of issues in historical and contemporary art and drawing. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 203; ART 230 or concurrent.

**Credits:** 5

**Grade Mode:** Letter

### **ART 304 - Figure Drawing and Issues of the Body**

Intermediate-level investigation through two-dimensional media of the human form. Basic drawing techniques and topics such as gesture, proportion, line, color, texture, value, expression, and some basic anatomy will be covered as applied to the life model. Explores contemporary issues of the body in art through major thematic and conceptual projects. Repeatable to a maximum of

15 credits, including original course.

**Prerequisites & Notes:** ART 203 and ART 230.

**Credits:** 5

**Grade Mode:** Letter

### **ART 305 - Experimental Drawing**

An intermediate level course that covers a wide range of materials and procedures. Students will be pushed to expand upon their own definition of what constitutes a drawing through key issues and exploration including: chance, operation, exterior influences, the use of non-traditional drawing materials and tools, bringing drawing into a third dimension, and drawing as a means to, or part of, a larger whole. The course aims to help the student build a suitable foundation for further artistic development in a variety of media. Mature levels of invention and problem solving, and the development of critical insight that facilitates dialogue and conceptual skills are required. Lecture/lab. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** ART 203 and ART 230

**Credits:** 5

**Grade Mode:** Letter

### **ART 306 - Mixed Media on Paper**

An intermediate level course that emphasizes the use and combining of diverse media and surfaces. Techniques covered will include: collage, ground surface treatments, washes, gouache, working with found and recycled material, and other modes of working with contemporary sources and forms. Repeatable up to 10 credits.

**Prerequisites & Notes:** ART 203 and ART 230.

**Credits:** 5

**Grade Mode:** Letter

### **ART 320 - Painting I**

An introduction to contemporary painting. Students study direct and indirect painting techniques with observational and photo-based sources. The course puts special emphasis on color theory and color mixing.

**Prerequisites & Notes:** ART 203 and ART 230

**Credits:** 5

**Grade Mode:** Letter

### **ART 322 - Painting II**

Continued exploration of painting concepts and techniques through the development of individual content. Studio work is complemented by in-depth discussion of issues in historical and contemporary painting. Lecture/lab. Repeatable to a maximum of

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10 credits, including original course.

**Prerequisites & Notes:** ART 320

**Credits:** 5

**Grade Mode:** Letter

### ART 324 - Figure Painting

Painting concepts and techniques with an emphasis on the human form and the figure in context. Studio work is complemented by in-depth discussion of issues of historical and contemporary figure painting. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 320

**Credits:** 5

**Grade Mode:** Letter

### ART 325 - Experimental Painting

An investigation of contemporary painting strategies using abstraction, mixed-media, and installation. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 320

**Credits:** 5

**Grade Mode:** Letter

### ART 331 - Sculpture-Wood

Examines the traditions of wood sculpture in the context of utilizing a variety of woods and wood-based materials to make contemporary sculpture. Further emphasis is placed upon development of concepts in relation to forms and materials. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 230

**Credits:** 5

**Grade Mode:** Letter

### ART 332 - Sculpture - Metals

Focus on traditional, industrial and alternative processes in metal fabrication and casting as a means of producing contemporary sculpture. Emphasis on achieving a balance between studio practice and theory. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 230

**Credits:** 5

**Grade Mode:** Letter

### ART 333 - Sculpture - Mixed Media

Use of disparate media for contemporary object making and non-two-dimensional art forms, within an expanding field of alternative sculptural

practices. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 230

**Credits:** 5

**Grade Mode:** Letter

### ART 334 - Installation Art

Explores distinctions between private and public art, traditional gallery presentation and site-specific installations. Performance and collaboration with other artists or disciplines will be offered as possible areas of work. Additional emphasis on effective documentation of temporary and site-specific work. Lecture/lab. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** Art 230

**Credits:** 5

**Grade Mode:** Letter

### ART 335 - Intermedia, Mixed Media, Time-Based Art and Installation

Course will provide a more advanced and ambitious, multiple project-oriented work environment for exploring contemporary studio practices in intermedia, mixed media, time-based art and installation. This will include but not be limited to the opportunity for work in time-based media such as performance, sound and video. Traditional gallery presentation, site-specific installations, collaboration and producing effective documentation will also be covered. Students will be encouraged to consider the production of their art as creative research or a mode of personal inquiry.

**Prerequisites & Notes:** ART 109; ART 130; ART 230; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### ART 340 - Ceramics I

Introduction to ceramics. Pottery and sculptural forms are hand-built using coil, slab and molded techniques. Introduction to glaze formulation, kiln loading and firing. Both traditional and contemporary applications are explored.

**Prerequisites & Notes:** ART 203; ART 230

**Credits:** 5

**Grade Mode:** Letter

### ART 341 - Ceramics II

Introduction to the potter's wheel as a tool; hand building, glaze formulation and kiln firing. Repeatable up to 15 credits including original course.



**Prerequisites & Notes:** ART 340

**Credits:** 5

**Grade Mode:** Letter

### **ART 342 - Ceramics III**

Intermediate problems in clay as a medium. Development of individual directions in pottery and/or ceramic sculpture. Weekly seminars. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 340 and ART 341

**Credits:** 5

**Grade Mode:** Letter

### **ART 343 - Summer Intensive Ceramics**

How, why, when and what to do with clay. Basic manipulation of clay; glazing and kiln firing. Attention to workable classroom problems, critiquing, safety, historical background and slide presentations. Covers a variety of hand-building techniques, how to use the potter's wheel, glazing, casting, kiln loading and firing. A variety of clays and firing techniques are used. Offered summers only. Repeatable to a maximum of 15 cr.

**Credits:** 5

**Grade Mode:** Letter

### **ART 350 - Printmaking I**

Course covering history, methods, and practice of print concepts. Color, black and white, and digital/photographic methods discussed/explored. Introduction to monotype, relief, lithographic, and intaglio processes.

**Prerequisites & Notes:** ART 203 and ART 230.

**Credits:** 5

**Grade Mode:** Letter

### **ART 351 - Printmaking: Relief**

Students explore carving and printing of linoleum and woodblock surfaces. An emphasis is placed on color printing and working in layers, as well as relief engraving. Historical and contemporary examples are explored. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 350

**Credits:** 5

**Grade Mode:** Letter

### **ART 352 - Printmaking: Stone Lithography**

A course covering history, methods, criticism, and practice of stone lithography including color printing and registration. Historical and contemporary lithographic examples explored.

Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 350

**Credits:** 5

**Grade Mode:** Letter

### **ART 353 - Printmaking: Etching**

Course covers history, methods, criticism, and practice of copper plate etching. Techniques include: hard-ground and soft-ground etching, aquatint, mezzotint, color applications, multi-plate registration, and photo-polymer gravure. Historical and contemporary examples explored. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 350.

**Credits:** 5

**Grade Mode:** Letter

### **ART 360 - Fibers and Fabrics I**

Introduction to technical explorations of dye application, fabric manipulation, and structural process of textile production. Technical information accompanied by presentations of contemporary fiber history and issues. Specifics include: tie dyeing, Katazome (paste resist stencil dyeing), and loom weaving. All explorations to focus on the inherent expressive/conceptual qualities of traditional fiber media and processes and their mixed media counterparts. Lecture/lab.

**Prerequisites & Notes:** ART 203 and ART 230 or concurrent.

**Credits:** 5

**Grade Mode:** Letter

### **ART 361 - Surface Design**

Techniques and concepts of cloth alteration with an emphasis on surface and design. Specifics include: heat transfer dye on polyester fabric, advanced dyeing techniques on silk and screen-printing. Through traditional and contemporary fiber investigations, students will develop thematic and conceptual ideas while learning new skills and processes. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 360

**Credits:** 5

**Grade Mode:** Letter

### **ART 362 - Papermaking and Mixed Media**

A lecture/lab course covering the history of papermaking, exploration of the traditional processes of various cultures, and contemporary applications. Two-dimensional and three-

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dimensional projects will be made utilizing a variety of materials. Specifics include: Japanese papermaking, watermarks, recycled paper, etc. Paper casting is the main 3D project. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 203 and ART 230

**Credits:** 5

**Grade Mode:** Letter

### **ART 363 - 3-Dimensional Forms in Fiber**

Focuses on three-dimensional off-loom processes in fiber and material studies. Historical and contemporary applications of sandal weaving, basket making, felt making, lace making, and soft sculpture including wearable art will be explored. Integration between 2D and 3D forms will be conceptually presented through individual skills and creative ideas. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 203 and ART 230

**Credits:** 5

**Grade Mode:** Letter

### **ART 367 - Advanced Weaving**

Focus on loom weaving techniques such as pattern weaving, double cloth weaving, Ikat weaving, tapestry and the AVL computer loom. Understanding woven structures and personal expression using both traditional and contemporary process as an art form will be explored. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 360

**Credits:** 5

**Grade Mode:** Letter

### **ART 370 - B&W Photography I**

Fundamentals of black and white developing, enlarging, print finishing. This introduction course is structured to establish a solid grounding in traditional, lab-based photographic art practices and includes an introduction to basic digital applications. All photography course work puts an equal emphasis on theory, techniques, and the history of photography in a contemporary context.

If you do not have the necessary prerequisites please contact the instructor regarding course override.

**Prerequisites & Notes:** ART 203 and ART 230; or concurrent. If you do not have the necessary prerequisites contact the instructor regarding course override.

**Credits:** 5

**Grade Mode:** Letter

### **ART 371 - B&W Photography II**

This is an intermediate level course concentrating on black and white, which offers students an opportunity to develop their knowledge, skills, and concepts through, seminars, readings, exhibitions and professional practices. It stresses the development of personal style through concentrated studies in specialized materials and processes ranging from traditional lab-based technique to digital applications. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 370

**Credits:** 5

**Grade Mode:** Letter

### **ART 372 - Color Photography**

This course focuses on the fundamentals of color theory, techniques and the experimentation as related to the production of color images. It explores both traditional lab-based and digital investigations. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 370 and ART 371.

**Credits:** 5

**Grade Mode:** Letter

### **ART 373 - Photography Alternative Processes**

This course explores the history and practice of alternative forms of image construction and processes. It covers numerous traditional and contemporary photo techniques, from non-silver techniques (Cyan, Van Dyke) to the construction of digital negatives. The course will address historical and contemporary applications of alternative processes. Class time consists of hands-on demonstrations, slide presentations, supervised darkroom time, individual and group discussions. Repeatable up to 10 credits, including original course.

**Prerequisites & Notes:** ART 371

**Credits:** 5

**Grade Mode:** Letter

### **ART 380 - Art Educating the Child**

Not for ART majors. Strategies and techniques in production of art and critical inquiry by elementary school children.

**Credits:** 3

**Grade Mode:** Letter

**ART 381 - Theories and Teaching Strategies in Art Education**

The study and application of art education theory in the elementary and secondary schools. Emphasis will be placed on curricular development in art criticism, aesthetics, art history and studio production.

**Prerequisites & Notes:** Admission to Woodring College of Education; Art 109, ART 110, ART 120, ART 230.

**Credits:** 4

**Grade Mode:** Letter

**ART 385 - Time-Based Art**

This course introduces major theories, artworks, tools, and techniques that are commonly associated with digital, time-based interdisciplinary art practices.

**Prerequisites & Notes:** ART 109, ART 110 and ART 120; ART 203 and ART 230 with concurrency.

**Credits:** 5

**Grade Mode:** Letter

**ART 386 - Experimental Video Production: Narrative and Documentary**

This hands-on digital video production class is designed for a range of skill levels, from beginners to more advanced video makers. During this project-based class, students will be exposed to a broad range of experimental video works, and will learn and develop production and post-production skills.

**Prerequisites & Notes:** ART 109, ART 110 and ART 120; ART 203 and ART 230 with concurrency.

**Credits:** 5

**Grade Mode:** Letter

**ART 394 - Art Workshop: Italy**

Intensive drawing and painting workshop in Italy. Summer only. Course will be team taught in central and northern Italy. Explores drawing and painting as well as on-site study of Italian art and culture. Lecture/lab. Repeatable.

**Prerequisites & Notes:** ART 110 or other beginning drawing courses

**Credits:** 7

**Grade Mode:** Letter

**ART 396 - Summer Art Program in Japan**

Study traditional and contemporary culture in Japan. Activities include: visiting historical sites, galleries, museums and artist studios. Experience a tea ceremony, papermaking, weaving, natural

dyeing and more. Students will contribute to an exhibition following the trip. Offered summer quarter only.

**Prerequisites & Notes:** ART 109 and ART 110.

**Credits:** 7

**Grade Mode:** Letter

**ART 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. (Also offered as DNC 398, MUS 398 and THTR 398).

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

**Credits:** 3

**Grade Mode:** Letter

**ART 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**ART 422 - Advanced Drawing and Painting**

Development of individual projects in painting and/or drawing through independent studio practice. Studio work is complemented by: discussion of pertinent topics in historical and contemporary painting and drawing, critiques, readings, field trips and guest lectures. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** 15 credits of 300 level in any of the following; ART 303, ART 304, ART 305, ART 306, ART 322, ART 324, ART 325.

**Credits:** 5

**Grade Mode:** Letter

**ART 431 - Advanced Sculpture**

Self-directed, project-oriented advanced work. Working closely with instructor, students will concentrate on the development of their discipline and artistic production as a personal mode of creative research, in the general context of contemporary art practices. Lecture/lab. Repeatable to a maximum of 15 credits.

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**Prerequisites & Notes:** 15 credits of 300-level sculpture or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **ART 441 - Advanced Ceramic Workshop**

Problems in advanced ceramics; self-directed projects and weekly seminars. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** ART 342

**Credits:** 5

**Grade Mode:** Letter

### **ART 460 - Advanced Fibers/Fabrics**

Advanced problems in fiber/fabrics study. Emphasis on self-directed project development and contemporary issues in fibers/fabrics. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** 5 credits of 300-level fiber courses or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **ART 470 - Advanced Photography Seminar**

Using a small group dynamic to critique and exchange ideas based on readings, visiting artists and theoretical inquiry, this class explores contemporary concepts surrounding the production of photography. The course consists of self-directed projects, which afford students time to produce a substantial body of research-driven work which reflects their individual interests. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 370 and ART 371; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ART 482 - Art Education Workshop**

Explorations in art media and their adaptation to use in the school. Not to be used for graduate program. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** Teaching experience

**Credits:** 1-5

**Grade Mode:** Letter

### **ART 492 - BFA Project / Exhibition**

BFA students will develop a self-directed body of work under the supervision of their faculty committee, independently researching the materials, techniques, processes, subject matter, critical issues and related artistic production that

will contribute to their creative project. Students will be required to exhibit their works at the end of the BFA Year. They will prepare their work for presentation and will research materials, display methods, installation formats and venues. Repeatable to a maximum of 9 credits, including original course.

**Prerequisites & Notes:** Admission to BFA Program

**Credits:** 3

**Grade Mode:** Letter

### **ART 494 - Advanced Studio Seminar**

Critique-driven, production-oriented interdisciplinary course based in self-directed project development with an emphasis on contemporary issues in studio art. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** Senior status, BFA status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **ART 495 - Professional Practices for Studio Artist**

For the student who anticipates graduation and completion of the Studio Art BA or BFA degree in the near future. Designed to facilitate entry into the world of professional artists, galleries, critics, and curators, with an emphasis on survival skills for the emerging artist. Includes current trends, professional issues and practices, and the preparation of a complete portfolio.

**Prerequisites & Notes:** Senior status, BFA status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **ART 496A - BFA Seminar A**

Art 496A is an advanced seminar for the BFA student that addresses issues in studio practice and facilitates the development of an individual body of work. Repeatable to a maximum of 4 credits.

**Prerequisites & Notes:** Acceptance in BFA program.

**Credits:** 2

**Grade Mode:** Letter

### **ART 496B - BFA Seminar B**

ART 496B is an advanced seminar for the BFA student that addresses issues in studio practice and facilitates the development of an individual body of work.

**Prerequisites & Notes:** Acceptance in BFA program.

**Credits:** 1

**Grade Mode:** Letter

## Art History Courses

### A/HI 201 - Zen and the Art of Tea

Chado allows a glimpse of Japanese culture from the perspective of a variety of different artistic media and a long historic tradition. The course will focus on the background of the Way of Tea, Zen and Japanese aesthetics and learning the most basic tea procedure. Through this course, students will gain insight into the many arts and crafts, architecture styles, Japanese aesthetic values, literature and the importance of the seasons associated with Chado as well as basic Japanese customs.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### A/HI 210 - History of Architecture

History of Architecture: Prehistory to Modernity.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### A/HI 220 - Visual Culture in Ancient Greece and Rome

Art, archeology, and visual culture from prehistory to antiquity, c. 5000 BCE-c. 500 CE.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### A/HI 221 - Visual Culture in Medieval Europe

Art and visual culture from the sixth to 14th centuries in Europe.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### A/HI 230 - Visual Culture in 15th and 16th Century Europe

Art and visual culture in Western Europe 1400-1550.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### A/HI 231 - Visual Culture in 17th and 18th Century Europe

Art and visual culture in Western Europe, 1550-1700.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### A/HI 240 - Visual Culture in Western Europe in the 19th Century

Issues and topics in art, 19th century.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### A/HI 241 - Visual Culture in Western Europe and America in the 20th Century

Issues and topics in art, 20th century.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### A/HI 250 - African Visual Culture from Prehistory to Present

An introduction to key issues and themes in African art from prehistory to present across the continent and in the diaspora. Case studies include brasscasting, sculpture, masquerade, textiles, and photography. Specifically, the course will explore how these traditions express various aspects of human experience, and how these traditions change over the course of history, including during colonial and after colonial rule.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### A/HI 270 - Visual Culture in South and Southeast Asia

Issues and topics in South and Southeast Asian art and visual culture, from ancient to contemporary.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### A/HI 271 - Visual Culture in East Asia

Issues and topics in Chinese, Korean, and Japanese visual culture, from ancient to contemporary.

**Credits:** 3

# ART AND ART HISTORY

**Grade Mode:** Letter  
**GUR Attributes:** ACGM

## **A/HI 275 - Introduction to Writing and Critical Thinking**

A preparatory course to develop skills in writing and analysis for the art historical field. Open to all Western students, but required for Art History majors. For Art History majors, A/HI 275, 375 and 475 must be taken in order because they sequentially develop visual analysis skills.

**Prerequisites & Notes:** ENG 101.  
**Credits:** 5  
**Grade Mode:** Letter

## **A/HI 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **A/HI 301 - Modern Art and Modernism**

Survey and critical analysis of modernist, theory and criticism.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.  
**Credits:** 5  
**Grade Mode:** Letter

## **A/HI 302 - Instructional Assistant**

Assist faculty in the classroom and with activities such as lecture preparation, class website upkeep, classroom discussion, research, and reviews for exams. Duties vary by course and instructor, but the time commitment will be 3-9 hours/week.

**Credits:** 1-3  
**Grade Mode:** Letter

## **A/HI 305 - Gallery Workshop**

Emphasis on art preparation/installation methods, and gallery/collections management. Students must commit to registering for this class for fall, winter and spring quarters. Repeatable to 9 credits. Intended as a resume building class. Credits may not be used for the Art History major

or minor.

**Prerequisites & Notes:** 6 credits in Art or Art History; instructor permission; meet Western Gallery intern selection criteria.

**Credits:** 3  
**Grade Mode:** Letter

## **A/HI 306 - Arts Internship**

Internship at museum, educational or public arts organization under the direction of a designated art history faculty member, in consultation with a staff member of the host institution. Intended as a resume building class. Credits may not be used for the art history major or minor. Repeatable to a maximum of 9 credits, including original course.

**Prerequisites & Notes:** 24 credits in Art History and written permission of instructor.

**Credits:** 1-4  
**Grade Mode:** Letter

## **A/HI 308 - Visual Arts in the Community**

A hands-on class designed to give students a practical experience in promotion of visual culture in the community.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5  
**Grade Mode:** Letter

## **A/HI 310 - Indigenous Arts of the Pacific Northwest**

Selected topics in the arts of the Pacific Northwest. Includes discussion of contemporary artists.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5  
**Grade Mode:** Letter

## **A/HI 313 - Art and Technology**

Critical approaches to the study of artistic practices based on visual technology. Topics may include: photography, film, video, computer-generated art and electronic media.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or

any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 315 - Early Modern Civic Identity:  
Special Topics**

Civic identity explored through ritual structures, urban society, and lay cultures. Repeatable with different topics. Can be repeated once as an elective with different topics.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 316 - Land and Landscape**

Studies of landscape and ideology in painting and garden design; issues of environment in the production of visual culture; relationships of land and architecture.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 330 - Art and Texts of the Sacred**

The ideological basis of painting, sculpture and manuscript illumination as tools of communication. The interdependence of textual and visual traditions and their subversion or alteration.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 358 - Postwar Art and Culture**

Examines postwar American culture, from 1950 to 1970, and critically assesses the relationships between art, popular media and the social upheavals of the postwar era.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 360 - Nationalism and Cultural Identity,  
19th and 20th Centuries**

Studies in the relationship between ideas of nation and the formation of cultural identity.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 368 - Pacific Arts and Visual Culture**

Art of Melanesia, Polynesia, Micronesia. Includes study of contemporary Pacific arts.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 370 - Islamic Visual Cultures**

Topics addressing historical and contemporary Islamic visual cultures in the Middle East, Africa, and Asia.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 371 - Transforming Traditions: Art and  
Visual Culture in Japan**

Study of visual cultures in Japan from 5000 BCE to present. Analysis of cultural influx and assimilation from Asia and Europe as well as indigenous and individual visual expressions.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: any one of the following - A/HI 210, A/HI 220, A/HI 221, A/HI 230, A/HI 231, A/HI 240, A/HI 241, A/HI 250, A/HI 270, A/HI 271 or any A/HI 297.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 375 - Methods in Art History**

## ART AND ART HISTORY

Methodological approaches to the study of Art History and further development of writing skills and visual analysis.

**Prerequisites & Notes:** A/HI 275, art history majors only.

**Credits:** 5

**Grade Mode:** Letter

### **A/HI 396 - Summer Art History Program in Japan**

Study traditional and contemporary culture in Japan. Activities include: visiting historical sites, galleries, museums and artist studios. Experience a tea ceremony, papermaking, weaving, natural dyeing and more. Students will write a paper following the trip. Offered summer quarter only.

**Prerequisites & Notes:** A/HI 271 or permission of instructor.

**Credits:** 7

**Grade Mode:** Letter

### **A/HI 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **A/HI 401 - Contemporary Issues and Post-Modern Critiques**

Theoretical analysis of late twentieth century postmodernist art and culture, and critical discussion of the expansion of visual media during the contemporary era.

**Prerequisites & Notes:** A/HI major: A/HI 375; Non-major: 5 credits A/HI 300 level or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **A/HI 411 - Contemporary Japanese Visual Culture**

Examines Japanese artistic forms and visual culture from Post-World War II until the present. Explores connections between Japanese socioeconomic and artistic developments, as well as visual manifestations of contemporary Japanese youth culture. Topics include anime, manga, Harajuku fashion and art movements such as Gutai and Superflat.

**Prerequisites & Notes:** Art History Majors: A/HI 271 and A/HI 375; non-majors: A/HI 271 and 5 credits of 300-level in art history or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **A/HI 413 - Space and Representation**

Theoretical and cultural analysis of the history of representing space within Western art and architecture, from Gothic cathedrals and Renaissance perspective to cubist fractured surfaces and contemporary heterogeneous space.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **A/HI 415 - Space and the Urban Environment**

Topics in urban organization, urban/rural dynamics, regionalism, spaces and social production in the built environment and the arts.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **A/HI 416 - Borders and Terrains**

Mapping artistic domains; implications of geographic borders; defining places and margins in cultural production.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **A/HI 420 - Building 17th and 18th Century Europe**

Studies of architecture, spatial organization and visual culture in 17th and 18th century Europe, including studies of colonization and contacts with Asia. Each course offering has a selected geographic focus and introduces theory for visual and spatial analysis.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.

**Credits:** 5

**Grade Mode:** Letter



**A/HI 429 - Patronage and Power: The Baroque Era**

The relationship of artist and public to the mechanisms of patronage and the art market.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 430 - Court Art of the Renaissance**

Courtly art in the context of humanism, antiquity, and chivalric society in Renaissance Italy.

**Prerequisites & Notes:** A/HI majors: A/HI 375; Non-majors 5 credits 300 level A/HI or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 431 - Popular Culture, Tourism and Leisure**

Studies in topics such as collecting, pilgrimage, touring and acquisition of the authentic.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 438 - Art and Feminism**

Studies of women artists, their past and present visual practices, and how they engage with cultural representations of gender, sexuality and class.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 440 - New Media and Digital Art**

Theoretical and critical approaches to the development of cyberspace and its relationship to new media, electronic art, virtual reality, videogames, and biotech art.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 450 - Cross-Cultural Representation**

Theoretical analysis of colonialism, neocolonialism, postcolonialism and multiculturalism, and their political, economic and cultural effects on representational practices.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 475 - Senior Projects/Practicum**

Final course for art history majors. May be a research project aimed toward the pursuit of an advanced degree or a practicum in one of several careers in arts advocacy, administration, community outreach, and other fields.

**Prerequisites & Notes:** A/HI 375; art history majors only.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 489 - Architecture and Museums**

Examines museum architecture and the exhibition of architecture in museums in Europe and America from the eighteenth century to the present.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**A/HI 490 - Seminar: Exhibition Theory and Practice**

Seminar on issues such as the display of visual experience and the configuration of public culture and community identities by artists, institutions and audiences. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

# Design

"Design" is both noun and verb, product and process. The products of design form the interface between humans and the environment. Design as a professional field of study is based on the foundations of visual communication. The study of design encompasses cultural, aesthetic, ergonomic, technical, ethical, and economic fields. Designers create communications that serve many needs—everything from warning labels to multimedia interfaces. They solve communication problems of all types and sizes. The solutions require creativity, lateral thinking, research, and excellent verbal and written communication skills.

The Department of Design prepares students to successfully communicate information and abstract concepts visually. The faculty strives to provide each student with a broad educational background and preparation in specialization area. The curriculum is designed to promote intellectual rigor, critical thinking and creativity, through a combination of courses that are both theoretical and practical. The theoretical component emphasizes creative problem solving and critical assessment. The practical component focuses on the building of aesthetic and technical skills. The development of these two components culminates in a portfolio of design work. The portfolio also provides evidence of the student's creative and analytical talents, enabling the student to apply his/her scholarship in regional, national, and global communities. Each portfolio is highly personalized allowing the students to exhibit their specific strengths and interests, thus promoting the diversity of perspectives for which our students' portfolios are known in the professional design world. The development of specialized skills in spatial organization, color, visualization, problem solving methodologies, conceptual thinking and the acquisition of digital tool skills, in combination with an excellent liberal arts foundation, provide graduates of the program with the skills necessary for seeking employment as a graphic designer or pursuing graduate studies.

## Design Faculty

**ELSI VASSDAL ELLIS** (1977) Chair and Professor. BS, MEd, Western Washington State College; PhD, University of Washington.

**PAULA S. AIRTH** (2012) Assistant Professor. BA, Western Washington University; MFA, University of Utah.

**CRISTINA de ALMEIDA** (1997) Professor. BFA, Escola Superior de Desenho Industrial, Rio de Janeiro, Brazil; MFA, University of Massachusetts.

**KACEY MORROW** (2008) Associate Professor, BA, University of Iowa, School of Art and Art History; MFA, University of Illinois, School of Art and

Design.

**BRITTANY SCHADE** (2013) Assistant Professor, BFA, Florida Atlantic University; MFA, Florida Atlantic University.

**KENTON D. SMITH** (1993) Professor. BFA, MA, Fort Hays State University; MFA, Kent State University.

## Mission Statement

The Department of Design utilizes a curriculum that emphasizes the process of problem solving to direct students to make connections between culture and design and their role as responsible visual communicators. As a professional field of study, students learn to combine personal expression and critical thinking as they create solutions that connect industry, individuals, and institutions to specific audiences and themselves to the world. Students develop adaptive learning strategies to sustain successful communication careers in a constantly changing world.

## Degrees

The Department of Design offers both Bachelor of Arts and Bachelor of Fine Arts degrees in design. The liberal arts BA degree in design provides students the opportunity to develop visual communication talents through courses in print and digital media design combined with a minor to broaden the educational experience. The BFA degree is the professional degree option providing a fully integrated professional senior year in the development of the exit portfolio. The BFA degree requirements also include a summer internship with contracted firms. Admittance to the BFA is through portfolio review during winter quarter.

## Learning Outcomes for Design Majors

1. Demonstrate functional competence with principles of visual organization, visual language and theory as applied to visual communication problems.
2. Understand and apply creative and abstract thinking skills to visual communication problems.
3. Understand, embrace and use current tools, software and technology as a vehicle of effective communication (conceive, design, produce, and create visual forms to successfully communicate ideas, opinions, concepts).
4. Demonstrate facility in visual communication practice, including written and verbal communication skills

The Learning Outcomes identified for the Design Program reflect the expectations of National

Association of Schools of Art & Design [NASAD] for accredited professional design programs as well as recommendations by AIGA and an external advisory board.

Formal assessment occurs in concert with strategic planning and catalog revisions. Access to an advisory board provides additional layers of informal review to stimulate positive change. The nature of lab pedagogy results in the constant observation and evaluation of student work (outcomes) by faculty and students. Students are consistently involved in assessment of their learning through reflection, class and self-critique of their work and the work of their peers.

### Advisement and Plan of Study

Upon admission to the major a Plan of Study must be completed under advisement of a student's assigned advisor. Students are expected to meet with their advisors regularly. All Design BA majors are required to declare and complete a minor or the equivalent of a minor of 24 to 30 credits. A second major will also complete the minor requirement. A list of suggested minors will be available through your advisor.

Design majors must maintain a minimum 2.5 cumulative GPA.

The junior portfolio review in Design is only for students wishing to earn the BFA degree.

### Declaration Process

Most classes in Design are currently restricted to majors only. To access classes, a formal application to the Department of Design is required. Application for the major is made with a portfolio of work. The portfolio will be reviewed by the Design faculty and evaluated on the basis of a demonstrated understanding of the elements and principles of design and visual communication, technical proficiency and originality.

Portfolios are reviewed twice each academic year: October 15 and January 31. Portfolios must be

received on or before the deadlines, not postmarked by the deadlines. Incomplete portfolios will not be reviewed.

Design majors must complete a plan of study with a department advisor before enrolling in any 200-level course. The plan of study will also include the declaration of a minor as part of the BA degree requirements.

### Application Requirements

All applicants of the Design major must submit a portfolio of 12 works. It is recommended that the portfolio include recent pieces. Work can be in any media and must demonstrate basic visual and design skills.

- Understanding of formal principles
- Technical skills
- Ability to use visual language to communicate ideas
- Originality and risk taking

An accompanying list should briefly describe the rationale behind each piece. Macintosh-compatible CD-ROMs; slides and online portfolios are acceptable. Digital portfolios must be presented in an easily accessible format. It is the applicant's responsibility to ensure proper functioning of the digital media and files.

Applicants are also required to complete a design assignment. This assignment is described on the major application form that may be downloaded from the department website:  
[www.wvu.edu/design/html/admissions.shtml](http://www.wvu.edu/design/html/admissions.shtml).

### Scholarships

The Department of Design offers a limited number of scholarships to recognize individual talents, promise, and meritorious achievement, such as the Babcock scholarship and the Vassdal scholarship. Please consult the scholarship brochure available through Student Financial Resources for information on other scholarships.

## Bachelor of Arts

### Design, BA

Department of Design, College of Fine and Performing Arts

**62 credits**

### Introduction

## DESIGN

The Department of Design identifies design as the visual communication of ideas. The program utilizes a curriculum that emphasizes the process of problem solving and encourages students to make connections between culture and design, and their role as visual communicators. Students learn to combine personal expression and critical thinking as they create solutions that connect industry to an audience and themselves to the world.

### Why Consider a Design Major?

Career opportunities are found in all segments of industry, both in the private and public sector. Western Design graduates go on to work in advertising agencies, design firms, in-house departments, paper companies, printing firms, as well as serving as private consultants in corporate identity, environmental graphic design, packaging, publication and web design. They work as Designers, Project and Production Managers, Web and Interactive Designers and Digital Image Makers.

#### Contact Information

##### Design Department Chair

Elsi Vassdal-Ellis  
Fine Arts 116  
360-650-3674  
Elsi.Vassdal-Ellis@wwu.edu

##### Major Information:

Fine Arts 116  
360-650-3660  
Design@wwu.edu

#### Sample Careers

Graphic Designer | Web Designer | Project Manager | Art Director | Digital Image Maker | Creative Director |  
Interactive Designer | UX/UI

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

To declare a Design major, application is made with a portfolio of 12 personal works and a typographic hierarchy assignment. The portfolio will be reviewed by Design faculty and evaluated on the basis of a demonstrated understanding of the elements of visual communication, technical proficiency and originality. Application deadlines for the Design major are October 15 and January 31 for current Western students and January 31 for freshmen and transfer students planning to start in the Fall. Portfolios must be received by the deadline, not postmarked by the deadline.

Send portfolio to:

Design Review Committee  
Western Washington University  
Fine Arts Complex, Room 116  
516 High Street  
Bellingham, WA 98225-9068

### Grade Requirements

Majors must maintain a 2.50 grade point average both overall and in design courses taken at Western. Students falling below the 2.50 average will be placed on probation; failure to bring the cumulative GPA up to 2.50 by the end of two subsequent quarters will result in removal from the major.

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

Students must meet with an advisor before taking 200-level courses to write a formal plan of study that includes identification of a minor.

- DSGN 111 - Design View
- DSGN 211 - Foundations of Visual Communication
- DSGN 220 - Visual Communication I
- DSGN 240 - Visual Communication II
- DSGN 250 - Visual Communication III

- ❑ DSGN 260 - Visual Communication IV
- ❑ One course from:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- ❑ DSGN 312 - Graphic Design in the 20th Century
- ❑ DSGN 330 - Typography I
- ❑ DSGN 340 - Graphic Design: 2D
- ❑ DSGN 341 - Graphic Design: 3D
- ❑ DSGN 351 - Print and Finishing
- ❑ DSGN 360 - Digital Media Design I
- ❑ DSGN 361 - Digital Media Design II
- ❑ DSGN 385 - Professional Practices in Visual Communication Design

#### **Minor (24-30 credits)**

BA majors will complete an official minor comprised of 24 or more credits. Students must meet with an advisor before taking 200-level courses to write a formal plan of study that includes identification of a minor. Students may petition to substitute a self-designed minor, comprised of at least 24 credits. The petition must include a written statement prepared by the student indicating the rationale for the courses selected. Students may substitute a second major or Internet Studies certification for a minor.

### Departmental Honors

In addition to the general requirements for all honors students, design major who wishes to graduate with honors must complete an honors senior project in design.

## Bachelor of Fine Arts

### Design, BFA

Department of Design, College of Fine and Performing Arts

#### **115 Credits**

#### **Introduction**

The Bachelor of Fine Arts in Design is the professional degree option for students admitted to the Bachelor of Arts in Design. The BFA degree option is a highly competitive degree limited to a maximum of 12 students per year. Courses in the senior year focus on the integration of graphic, production and digital media design in the solution of visual communication problems.

To earn the BFA students must submit a portfolio of selected work from 200- and 300-level classes. Application to the BFA in Design is made during winter quarter of the junior year and portfolios are reviewed by the Design faculty. All students must begin their BFA studies in the spring quarter of the junior year to prepare them for the summer-only Internship requirement. The Bachelor of Fine Arts in Design degree requires each student to complete the following program:

#### **Why Consider a Design Major and a Bachelor of Fine Arts Degree?**

Career opportunities are found in all segments of industry, both in the private and public sector. Western Design graduates go on to work in advertising agencies, design firms, in-house departments, web and interactive design firms, paper companies, printing firms, as well as serving as private consultants in corporate identity, environmental graphic design, packaging, user-interface and interactive design, publication and web design. They work as Print, Web, Motion graphics, and Interactive Designers, Design Educators, Project and Production Managers, and Digital Image Makers.

#### Contact Information

**Design Department Chair**  
Elsi Vassdal-Ellis

**Major Information:**  
Fine Arts 116

# DESIGN

Fine Arts 116  
360-650-3674  
Elsi.Vassdal-Ellis@wwu.edu

360-650-3660  
Design@wwu.edu

## Sample Careers

Graphic Designer | Art Director | Web Designer | Project Manager | Digital Image Maker | Creative Director | Interactive Designer | UX/UI

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The BFA degree application is made with a portfolio composed of completed work and/or work in progress from DSGN 330, 340, 351, and 360. The portfolio will be reviewed by Design faculty and evaluated on the basis of a demonstrated understanding of the elements of visual communication, technical proficiency, originality, problem-solving and professionalism. The BFA applications will be reviewed during winter quarter. Deadlines will be posted in the department office and announced in design classes. Portfolios must be received by the announced deadline.

Send application to:  
Design BFA Review Committee  
Western Washington University, Department of Design  
Fine Arts Complex, Room 116  
516 High Street  
Bellingham, WA 98225-9068

## Grade Requirements

Majors must maintain a 2.50 grade point average both overall and in design courses taken at Western. Students falling below the 2.50 average will be placed on probation; failure to bring the cumulative GPA up to 2.50 by the end of two subsequent quarters will result in removal from the major.

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- DSGN 111 - Design View
- DSGN 211 - Foundations of Visual Communication
- DSGN 220 - Visual Communication I
- DSGN 240 - Visual Communication II
- DSGN 250 - Visual Communication III
- DSGN 260 - Visual Communication IV
- DSGN 312 - Graphic Design in the 20th Century
- DSGN 330 - Typography I
- DSGN 430 - Typography II
- DSGN 340 - Graphic Design: 2D
- DSGN 341 - Graphic Design: 3D
- DSGN 351 - Print and Finishing
- DSGN 360 - Digital Media Design I
- DSGN 361 - Digital Media Design II
- DSGN 460 - Digital Media Design III
- DSGN 385 - Professional Practices in Visual Communication Design
- DSGN 480 - BFA Seminar (repeated 3 times)
- DSGN 481 - BFA Workshop (repeated minimum 2 times)
- DSGN 485 - Professional Practices in Visual Communication Design: BFA
- One of the following:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- 10 credits of internship during summer quarter between junior and senior years (DSGN 489)

- Sufficient number of credits from declared minor to bring total credits to 115

## Departmental Honors

In addition to the general requirements for all honors students, a design major who wishes to graduate with honors must complete an honors senior project in design.

# Minor

## Design Studies Minor

Department of Design, College of Fine and Performing Arts

**29 credits**

### Introduction

The Design Studies Minor is composed of 3 GUR courses (large lecture format), an upper division design history course, and four lecture/lab courses providing a foundation in drawing for design; 2D design, type and color; 3D design; and 4D design exploring time and motion graphics.

#### Contact Information

##### Design Department Chair

Elsi Vassdal-Ellis  
Fine Arts 116  
360-650-3674  
Elsi.Vassdal-Ellis@wwu.edu

##### Major Information:

Fine Arts 116  
360-650-3660  
Design@www.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students will submit a portfolio consisting of work created in high school/community college/college courses, self-authored work, as well as an application project for admission to the Design Pre-Major. The faculty committee will review the portfolios based upon criteria identified in the application form. Design Pre-Majors will complete the Design Foundation sequence of Design 220, 240, 250 and 260 and submit a second portfolio consisting of work from the Design Foundation for advancement to the BA, Design major. Students not advanced into the BA major will complete and earn the Design Studies minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Students advanced to the Design BA major must maintain a cumulative 2.5 GPA.

### Requirements

- DSGN 111 - Design View
- DSGN 211 - Foundations of Visual Communication
- DSGN 220 - Visual Communication I
- DSGN 240 - Visual Communication II
- DSGN 250 - Visual Communication III
- DSGN 260 - Visual Communication IV
- DSGN 312 - Graphic Design in the 20th Century
- One course from:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century

## DESIGN

### User Experience (UX) Design Minor (see Engineering and Design Department)

User Experience (UX) Design Minor (see Engineering and Design Department)

### Design Courses

#### DSGN 111 - Design View

Introduction to design thinking and how design practice affects everyday life in a diversity of cultures (graphic, industrial, architectural). Course will be a mixture of lectures with guest speakers as well as exams and assignments. Lecture format.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

#### DSGN 140 - Introduction to Visual Communication

Introduction to visual communications concepts and applications incorporating type, design elements, design principles and software. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

#### DSGN 141 - Visual Communication

Intended for high school students who are considering studying graphic design at the university level, this course will build on skills and further develop an understanding of the design process. The class will focus on typography, introduce modern branding methods, design research and design thinking. Digital design tools will be combined with other forms of image making to build on each student's individual talents. Students will produce portfolio worthy designs using a selection of production methods. S/U grading.

**Prerequisites & Notes:** DSGN 140 (College Quest) or other similar pre-college graphics course, high school graphics course, high school yearbook course, or graphics work experience.  
**Credits:** 1  
**Grade Mode:** S/U

#### DSGN 211 - Foundations of Visual Communication

Issues and topics related to the development of visual communication/graphic design with emphasis on the development of typographic and print culture.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

#### DSGN 220 - Visual Communication I

Introduction to and exploration of visual thinking experiences and the translation of ideas into sketches and drawings representing solutions to visual communication problems. Includes studies in graphic ideation, graphic languages, object drawing, orthographic views, perspective, the visualization process and storyboarding.

**Prerequisites & Notes:** Major status.  
**Credits:** 4  
**Grade Mode:** Letter

#### DSGN 240 - Visual Communication II

Introduction and exploration of visual literacy elements and principles. Emphasis on how these elements and principles are applied in visual communication problems pertaining to both graphic design and typography. Course will incorporate hands-on projects covering both analog and digital techniques of image and type manipulation. Lecture/lab.

**Prerequisites & Notes:** Major status.  
**Credits:** 4  
**Grade Mode:** Letter

#### DSGN 249 - Graphic Design Concepts

Introductory course in layout, design, and software with an emphasis on typography. Course incorporates hands-on projects covering both analog and digital techniques of image and type manipulation. Lecture/Lab. For non-majors only.

**Credits:** 4  
**Grade Mode:** Letter

#### DSGN 250 - Visual Communication III

Introduction and exploration of the basic principles, processes, and materials of three-dimensional forms. Emphasis on how these elements and principles are applied in visual communication problems and the selection and use of materials with an emphasis on paper. Course will incorporate hands-on projects in 3D visualization and construction. Lecture/lab.

**Prerequisites & Notes:** Major status.



**Credits:** 4  
**Grade Mode:** Letter

### **DSGN 260 - Visual Communication IV**

Introduction and exploration of the basic principles of time-based media, integration of design principles and elements, time and sequence, and methods of storytelling. Lecture/lab.

**Prerequisites & Notes:** Major status.  
**Credits:** 4  
**Grade Mode:** Letter

### **DSGN 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **DSGN 312 - Graphic Design in the 20th Century**

History of modern graphic design and illustration.

**Prerequisites & Notes:** DSGN 211 and one from A/HI 240, A/HI 241, A/HI 240A or A/HI 240B.  
**Credits:** 4  
**Grade Mode:** Letter

### **DSGN 330 - Typography I**

Focus on the use of type as an informative and expressive visual/verbal element in graphic design. Principles and methods of typographic layout will be introduced and expanded upon aiming the development of skills in using type creatively and effectively in specific communication scenarios. Lecture/lab.

**Prerequisites & Notes:** DSGN 111; DSGN 220; DSGN 240; DSGN 250; DSGN 260; major status; concurrent enrollment in DSGN 351.  
**Credits:** 5  
**Grade Mode:** Letter

### **DSGN 340 - Graphic Design: 2D**

Advanced concepts and solutions in graphic design for visual communication problems. Project will utilize previous skills in typography, graphic materials, publications as well as time and motion in building the visual cornerstone of branding. Course will focus on graphic identities, graphical application and methodology for integrating

messages and media for a comprehensive approach to visual communication as it's related to visual brands. Lecture and lab.

**Prerequisites & Notes:** DSGN 330; DSGN 351; concurrent enrollment in DSGN 360.  
**Credits:** 5  
**Grade Mode:** Letter

### **DSGN 341 - Graphic Design: 3D**

Concepts and techniques of three-dimensional design with an emphasis on packaging design. Projects will focus on choice of materials, structural forms, and graphic treatment as integrated components of the visual communication strategy. Lecture and lab.

**Prerequisites & Notes:** DSGN 340; DSGN 360; concurrent enrollment in DSGN 361.  
**Credits:** 5  
**Grade Mode:** Letter

### **DSGN 351 - Print and Finishing**

A hands-on study of the design process for print-based materials. Emphasizes team-based approaches to problem solving in the production of a bound collaborative analog and digital print edition.

**Prerequisites & Notes:** DSGN 111; DSGN 220; DSGN 240; DSGN 250; DSGN 260; major status; concurrent enrollment in DSGN 330.  
**Credits:** 5  
**Grade Mode:** Letter

### **DSGN 359 - Book Arts Production**

Course in the history, methods and practices of book design, structures and their application in the production of limited edition and unique formats employing letterpress, offset and digital printing techniques. Lecture/lab. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** DSGN 250, major status.  
**Credits:** 5  
**Grade Mode:** Letter

### **DSGN 360 - Digital Media Design I**

Methods and concepts of designing for an online experience, including a working knowledge of scripting languages, image optimization, file organization, information architecture, and usability.

**Prerequisites & Notes:** DSGN 330; DSGN 351; concurrent enrollment in DSGN 340.  
**Credits:** 5  
**Grade Mode:** Letter

## DESIGN

### **DSGN 361 - Digital Media Design II**

Approaches and concepts in designing for various digital platforms, focusing on user-interface, interactivity, and user-experience.

**Prerequisites & Notes:** DSGN 340; DSGN 360; concurrent enrollment in DSGN 341.

**Credits:** 5

**Grade Mode:** Letter

### **DSGN 375 - Summer Design Abroad**

Team taught. Opportunity for students to experience design on an international level. Extensive workshop/field trip format combines lectures by prominent designers, visitations to design firms and international corporations as well as opportunities to attend museums and expositions featuring design. Repeatable to a maximum of 14 cr. Offered summers only.

**Credits:** 7

**Grade Mode:** Letter

### **DSGN 385 - Professional Practices in Visual Communication Design**

Current trends, professional issues and practices. Preparation of a professional portfolio.

**Prerequisites & Notes:** DSGN 340, DSGN 360, Design, BA or Design, BFA major status.

**Credits:** 3

**Grade Mode:** Letter

### **DSGN 389 - BA Internship**

Faculty supervised fieldwork in design related activities. S/U grading. Repeatable to maximum of 10 credits, including original course.

**Prerequisites & Notes:** Design BA major with Junior status, and permission of instructor.

**Credits:** 1-10

**Grade Mode:** S/U

### **DSGN 390 - Topics in Design**

Specialized topics in design. The subject of each individual course will be announced in the timetable of classes. Repeatable with different topics only.

**Prerequisites & Notes:** Pre-reqs vary; depend on topic offered. See Classfinder/Timetable for specific details.

**Credits:** 3-5

**Grade Mode:** Letter

### **DSGN 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **DSGN 430 - Typography II**

Advanced problems of typographic layout. Focus on the design of long textual content, such as books and publications. Emphasis in the use of type as a conceptual tool for both communication and visual expression in a variety of visual/verbal genres. Lecture/lab.

**Prerequisites & Notes:** DSGN 330; Design, BFA status

**Credits:** 5

**Grade Mode:** Letter

### **DSGN 460 - Digital Media Design III**

Advanced problems in time-based media design. Projects will be more complex and conceptual in nature. Focus is on the investigation of narrative and technical aspects of time-based media, including pre-production, production, and post-production.

**Prerequisites & Notes:** DSGN 361; Design, BFA status

**Credits:** 5

**Grade Mode:** Letter

### **DSGN 480 - BFA Seminar**

Advanced problems in visual communication design (design production, graphic design, interactive/web/motion graphics). Repeatable to 15 credits including original course.

**Prerequisites & Notes:** BFA status.

**Credits:** 5

**Grade Mode:** Letter

### **DSGN 481 - BFA Workshop**

Special topics in visual communication design in an intensive workshop format. Repeatable up to a maximum of 6 credits, including original course. S/U grading.

**Prerequisites & Notes:** BFA status.

**Credits:** 2

**Grade Mode:** S/U

**DSGN 485 - Professional Practices in Visual Communication Design: BFA**

Currents trends, professional issues and practices.

Extension of Summer Internship experience. Contemporary trends, professional issues and practices. Personal and group branding focus and projects. Development of personal portfolio, group internship publication and BFA website.

**Prerequisites & Notes:** BFA major status and DSGN 489

**Credits:** 3

**Grade Mode:** Letter

**DSGN 489 - Internship**

Supervised pragmatic work experiences under the direction and supervision of qualified professional practitioners. Taken during summer quarter between junior and senior academic years. S/U grading.

**Prerequisites & Notes:** DSGN 331; DSGN 362. BFA status.

**Credits:** 10

**Grade Mode:** S/U

# Music

## Introduction

A Music degree from Western Washington University is highly regarded in the profession. Western graduates become successful teachers, performers, composers and leaders in all fields of music. The strength of Western's Department of Music is its faculty's commitment to students and helping them achieve their goals and aspirations.

The Department of Music also encourages and promotes participation from those students whose academic interests lie outside the arts, yet who have the appropriate experience and the dedication to succeed in our department. With more than five hundred students participating in our music program, there are opportunities for performance and academic study at many levels of involvement.

Explorations in early, traditional, contemporary, jazz and electronic music exist in the various course activities and degree plans with the emphasis always on dealing directly with the musical art through performance, composition and analysis.

The Department of Music offers one general and four professional undergraduate programs leading to baccalaureate degrees in music. The general program (BA) provides a liberal arts education with music as the major subject. The four professional undergraduate programs (BMus) emphasize the development of proficiency in the major area: music education, performance, history and literature, and composition. The BMus in Music Education has three areas of emphasis: P-12 general music, P-12 instrumental music, and P-12 choral music. State certification to teach is received concurrently with the granting of the degree. Western's music education curriculum is constructed to result in a minimum of two endorsements.

A variety of large and small ensembles and music courses are open to all qualified students of the University, regardless of major. The ensembles include: University Choir, Concert Choir, Symphonic Band, Wind Symphony, University Symphony Orchestra, Jazz Ensembles, Chamber Music (in all instruments and voice), Collegium Musicum, and Opera Theatre. All music ensembles present public programs throughout the year, and several ensembles participate in annual tours. Music courses open to all students in the University include: The Art of Listening to Music, Fundamentals of Music, Pop and Rock Music Survey, Intro to Country Music, Intro to Hip-Hop, Survey of Video Game Music, Survey of World

Musical Cultures and Jazz: Genesis and Evolution, among others.

## Advisement (please read carefully)

The Department of Music provides individual advisement and program planning for all students majoring in music. This takes place during the registration period. The department provides advisement by appointment. Many students prefer to spend a day on campus prior to transfer, at which time they may receive advisement, visit the various departmental performance groups and classes, and meet with instructors. Interested students should follow the guidelines set forth in the Music section of this catalog prior to contacting the department. Write or phone the Department of Music, Western Washington University, Bellingham, Washington 98225-9107, phone 360-650-3130 or visit the Website, [cfpa.wvu.edu/music](http://cfpa.wvu.edu/music).

The department is a full member of the National Association of Schools of Music.

## Faculty

**CHRISTOPHER BIANCO** (2006) Chair and Associate Professor. BME, Northwestern University; MM, University of Montana; DMA, the University of Texas-Austin.

**AMBER SUDDUTH BONE** (2006) Assistant Professor. BM, University of Hawaii; Ed. Cert., MM, DMA, University of Washington.

**PATRICIA BOURNE** (2012) Associate Professor. BME, Murray State University; MME, University of Oklahoma; Ed. D, Arizona State University

**ROGER D. BRIGGS** (1989) Professor. BM, Memphis State; MM, PhD, Eastman School of Music.

**GUSTAVO CAMACHO** (2014) Assistant Professor. BME, New Mexico State University; MM and DMA, Arizona State University.

**GRANT DONNELLAN** (2000) Professor. BM, Oberlin Conservatory; MM, Yale University.

**RYAN K. DUDENBOSTEL** (2014) Assistant Professor. BM, Western Washington University; MM, University of Missouri-Kansas City; DMA UCLA.

**DAVID FEINGOLD** (1980) Associate Professor. BA, Sarah Lawrence College; MA, Western Washington University.

**TIMOTHY FITZPATRICK** (2006) Associate Professor BM, Western Washington University; MM, University of Texas-Austin; MM, Western Washington University.

**JOHN FRIESEN** (1998) Professor. BMus, University of British Columbia; MMus, Julliard; DMA, University of Southern California.

**JEFFREY GILLIAM** (1992) Professor. BMus, Eastman School of Music; MMus, University of Michigan.

**LESLIE GUELKER-CONE** (1995) Professor. BA,

California State University, Stanislaus; MA, San Jose State University; DMA, University of Colorado, Boulder.

**BRUCE HAMILTON** (2002) Associate Professor. BM, MM, DM, Indiana University.

**MILICA JELACA JOVANOVIĆ** (2004) Associate Professor. BMUS, University of Belgrade; DMA, University of Michigan; MM, Moscow Tchaikovsky Conservatory; PhD, University of Michigan.

**PATRICK ROULET** (1994-2004; 2014) Assistant Professor. BM University of Michigan; MM Boston University; DMA, University of Washington.

**WALTER SCHWEDE** (1997) Associate Professor. BM, University of Michigan, MM, Catholic University.

**LESLEY SOMMER** (1997) Associate Professor. BM, MM, DM, Indiana University.

**BERTIL H. VAN BOER** (1996) Professor. AB, University of California, Berkeley; MA, University of Oregon; PhD, Uppsala University.

**KEVIN WOODS** (2015) Assistant Professor. BA, Western Washington University; MM, University of Colorado-Boulder.

### Affiliate Music Faculty

**HOLLY ALCORN**, Voice

**JON BASH**, Online Video Game Music

**ERIKA BLOCK**, Clarinet

**LAURA CAMACHO**, Music Appreciation

**GREGORY COX**, Trombone

**MARK DAVIES**, Voice

**HEATHER DUDENBOSTEL**, Voice

**VINCE GREEN**, Trumpet

**ERIC KEAN**, Viola

**LISA MCCARTHY**, Flute

**BEN MUSA**, Double Bass

**FRANCINE PETERSON**, Bassoon

**MELISSA PLAGEMANN**, Voice

**RACHEL ROULET**, Accompanist

**JAY ROZENDAAL**, Voice

**CARLA J. RUTSCHMAN**, Tuba

**LUCAS SENGER**, Online Hip Hop

**AMY SMART**, Online Country Music

**TODD SMITH**, Music History, Composition

**ZACHARY SMITH**, Instrumental Music Education

**MICHELLE STRANGES**, Keyboard Technician

**JENNIFER WEEKS**, Oboe

**KATHRYN WELD**, Voice

**JILL WHITMAN**, Harp

**JEANETTE WICKELL**, Online World Music

**JUDITH WIDRIG**, Piano

**FRED WINKLER**, Saxophone

### Declaration Process

Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students electing to begin in a quarter other than fall should seek advisement prior to enrollment.

## Other Departmental Information

### Music Performance

All students in Bachelor of Music degree programs must be members of a major performing ensemble each quarter of residence except in those quarters in which music education majors are enrolled in student teaching and those quarters in which piano majors are enrolled in accompanying. The requirement must be met through the student's major instrument or voice as follows: Symphonic Band or Wind Symphony for wind/percussion players, University Choir or Concert Choir for vocalists, and Symphony Orchestra for string players. Pianists and guitarists may elect to participate in any of the major performing ensembles for which they are qualified.

Pianists will take a combination of Major Performance Ensemble and Piano Accompanying as follows:

- **Performance:** Three quarters of major ensemble, remaining quarters in piano accompanying.
- **Composition and History/Literature:** six quarters of major ensemble, three quarters of piano accompanying, remaining quarters either major ensemble or piano accompanying.
- **Music Education:** six quarters of major ensemble, remaining quarters piano accompanying.
- **Bachelor of Arts in Music** majors will take three quarters of major performance ensemble and three quarters of accompanying.

(Note: Incoming piano students who pass their audition but exhibit deficiencies in sight-reading may additionally be required to take MUS 098 for one or more quarters. Students must pass the sight-reading examination before they are allowed to register for MUS 276.)

Guitarists majoring in music performance may, under advisement, substitute up to 12 additional credits in chamber music for this requirement. Performance ensembles may be repeated for credit.

### Applied Performance Proficiency

All entering music students will be expected to demonstrate performance proficiency before a faculty committee to determine their admissibility as music majors or minors. This qualifying audition will be held on announced dates prior to the start of fall, winter and spring quarter classes and on any day school is in session by **prior**

# MUSIC

**appointment. Audition deadlines** are as follows:

Fall quarter — June 1  
Winter quarter — December 1  
Spring quarter — March 1

Freshman and transfer students with marginal qualifications may be placed on **probation** at the beginning of their first quarter of study and will be re-examined at the end of the quarter. A student who fails to have probationary status removed at the end of two consecutive quarters may be removed from the major, continued applied instruction and admissibility to restricted classes. Music minors wishing to include applied instruction as part of the elective credits for the minor must perform an audition in accordance with the listed levels of proficiency. All students receiving applied instruction, with the exception of guitar and piano, must audition for placement in the appropriate major performing ensemble. Applied music may be repeated for credit. Students must complete the audition process in order to be eligible for music advising.

Minimum applied performance proficiency levels required for entrance to private applied music study are as follows. This list of repertoire is intended to characterize acceptable standards for full admittance and entrance to the major, with the permission of the appropriate area coordinator. Please contact the music department adviser at 360-650-4091 for details. However, at the entrance audition, the entering music student may play or sing musical selections other than those listed below.

**Piano:** Baroque, Classical, Romantic and contemporary literature at the level of difficulty or greater than: Bach, "Short Preludes" & "Inventions"; Clementi, Haydn, Mozart & Beethoven "Sonatinas"; Bartok "Mikrokosmos" Books 3 & 4. Three pieces of different style periods, all from memory. Sight-reading required.

**Violin:** Scales, either three or four octaves at a moderate tempo, six to eight notes per bow. Arpeggios, three or four octave, both minor and major, three notes per bow. Etudes: any of the etudes/caprices of Kreutzer, Rode, Fiorillo, Dont (op. 35) Gavinies, Paganini, Wieniawski (opus 10) or Ernst. One movement of a Solo Sonata or Partita, of J.S. Bach, and either a movement of any of the major concertos, Beethoven, Brahms, Mendelssohn, Saint-Saens, Tchaikovsky, et al, or, a virtuoso work such as Havanaise-Introduction and Rondo Capriccioso of Saint-Saens, Polonaise Brillante of Wieniawski, Zapateado of Sarasate, or Tzigane by Ravel, et al.

**Viola:** 3 octave scale of your choice. 1 movement of Bach Solo Suite. 1 movement of a Sonata (by

Brahms/Clarke/Schubert etc.) or Concerto (by Walton, Bartok, Hindemith, Stamitz, etc.) demonstrating your current level of musicality and technique.

**Cello:** 3 or 4 octave scales. Etude by Popper or similar. Two contrasting works from different stylistic periods. Eg. Bach Solo Suite and Sonata (by Brahms/Grieg/Shostakovich etc.) or Concerto (by Saint-Saens, Lalo, Dvorak, Haydn, etc.) or shorter concert work is also acceptable.

**Double Bass:** 1 etude from Nanny's "Complete Methods" book 1 OR solo of candidate's choice. Two contrasting orchestral excerpts (1 Mozart). Scales through half, 1st & 2nd positions.

**Guitar, Classical:** Scales-two octaves, any key (I and m), major and minor; Reading-easy pieces through 5th position; prepare two contrasting pieces from "Solo Guitar Playing" Book 1 (Noad) or "100 Graded Studies" (Noad).

**Guitar, Jazz:** Scales - two octaves, major and minor, alternate picking; reading - melodic through and including 5th position, ability to read a chord "chart"; prepare two contrasting tunes from a fake book, both melody and chords; be able to solo over basic chord changes, i.e., blues changes.

**Harp:** Two pieces of different style, memorized, such as Handel Concerto in B-flat, Haydn Theme & Variations, Pescetti C Major Sonata, Pierne Impromptu Caprice, Debussy First Arabesque, selections from Suite of Eight Dances by Salzedo. Major and melodic minor scales. Sightreading.

**Flute:** Two contrasting etudes from "Melodious and Progressive Studies", Book one, revised by Robert Cavally. Flute solo of choice (e.g., Telemann Sonata, Faure Fantaisie, Mozart Concerto in D, Hindemith Sonata, etc.).

**Oboe:** Any study from the Barret Oboe Method or the 48 Ferling Studies. Oboe solo of choice (e.g., Albinoni Concerto in d minor, Britten Six Metamorphoses after Ovid, Cimarosa Concerto in C, Nielsen Two Fantasy Pieces, Vaughan Williams Concerto, etc.).

**Clarinet:** Two contrasting etudes from "32 Studies" by Cyrille Rose. One movement from a work for clarinet and piano (e.g., Hindemith Sonata, Saint-Saens Sonata, Poulenc Sonata, etc.). One movement from a work for clarinet alone (e.g., Stravinsky "3 Pieces", Osborne "Rhapsody", etc.).

**Bassoon:** Two Weissenborn or Advanced Rubank etudes. Movements from any of the Galliard Six Sonatas for Bassoon or any Baroque Sonata.

**Saxophone:** Two studies from Ferling 48 Famous Studies, Rubank Selected Studies, Klose 25 Exercises or Niehaus Jazz Studies. Saxophone solo of choice (e.g., Glazounov Concerto, Ibert Concertino da Camera, Villa-Lobos Fantasia, Bozza Aria, Ibert Aria, etc.).

**Horn:** First or Third movement from any Mozart or Strauss Horn Concerto OR One recital solo such as Dukas "Villanelle", Hindemith "Sonata", Saint-Saens "Morceau de Concert", or Beethoven "Sonata for Horn", One technical etude from Kopprasch "60 Selected Studies", Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible), Sightreading may be requested at the audition

**Trumpet:** One or two études from "34 Studies" by Brandt, edited by Nagel. Haydn "Concerto" (first and second movements), or Vidal "Concertino" or Thome "Fantasy in Eb" or Corelli "Sonata VIII," edited by Fitzgerald. Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

**Tenor/Bass Trombone & Euphonium:** Two or three studies from "Melodious Études" by Rochut, Book I (bass trombone should play one octave lower where feasible), Studies one through ten of the Blazhevich Clef Studies. Five selected studies from the Arban Method, Book 1, Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible), Sightreading may be requested at the audition

**Tuba:** Any two of the first four solos in "Solos for the Tuba Player" by Wechselblatt. First 10 studies from the "Studies for BB $\flat$  Tuba" by Tyrell, Major and minor scales through four sharps and four flats (two octaves when possible, Sightreading may be requested at the audition

**Percussion:** On entering, percussion students should demonstrate proficiency in snare drum, timpani, and keyboard percussion, and have some experience and ability on drum set and accessory instruments (bass drum, cymbals, tambourine, etc.).

- Snare Drum: The 40 Percussive Arts Society snare drum rudiments, a concert and a rudimental style etude or solo.
- Timpani: Demonstrate the ability to tune various intervals and perform an etude or solo using four drums.
- Keyboard Percussion (Marimba, Vibraphone, Xylophone): Major and minor scales and arpeggios through 4 sharps and 4 flats (2 octaves), an etude or solo utilizing two and/or four mallet techniques.
- Drum Set (optional): Demonstrate knowledge of various contemporary styles

(Jazz, Rock, Latin) and the ability to maintain a steady pulse.

**Voice:** 2 songs of contrasting styles from the classical or folk song repertoires. At least one song in a language other than English is recommended, i.e. Italian, German or French art song or aria (memorization required). An accompanist will be provided

**Composition Portfolio** — Students interested in pursuing a BMus in composition must schedule an interview with Dr. Roger Briggs, director of composition. Students should schedule their composition interview for the same day they schedule their entrance audition in their major instrument/voice.

### Academic Progress Policy

A minimum GPA of 2.5 in music courses is required for graduation with a degree in music. Students must complete the basic music theory sequence (MUS 222, MUS 224) with an average of B- or better to continue on to upper-division theory and history courses. Specific requirements for admission into the various BMus degree programs can be obtained from the appropriate area coordinator or the undergraduate advisor.

### Upper-division Juries

Each student enrolled in private lessons (MUS 212-216, MUS 312-316, or MUS 412-416) will be required to perform a jury 2 quarters each academic year to monitor progress. Successfully performing an upper-division jury is required to pass into 300-level and 400-level lessons from 200-level. Passing an upper-division jury is only required to pass into upper-division applied instruction; completing an upper-division jury is not required to take upper-division academic courses although pre-requisites still apply.

Advancement will be based on the student's readiness to meet the particular vocal/instrumental, musical, and academic requirements for each level as stated in each area's policy statement. BMus students who have not been advanced to upper-division status by the end of their third year at Western will be required to meet with the appropriate area coordinator and advisor regarding timely progress.

### Theory, Aural Skills, and Keyboard Skills Placement Examinations - Transfers

All students transferring to Western who have completed at least one quarter of college-level theory, aural skills, or keyboard skills will take,

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prior to enrollment, a Theory Placement Examination, an Aural Skills Placement Examination, and/or a Keyboard Skills Examination. These examinations are evaluative instruments; the results are advisory only. Students may repeat theory and/or aural skills/keyboard skills courses previously taken elsewhere. All credit received in theory, aural skills, and keyboard skills previously at other institutions will be transferred at the level for which it was earned and may apply toward fulfillment of the requirements for the major in music or in music education.

## History Placement Examination - Transfers

Students with upper-division music history credit (300 level or above) must take a history placement examination to determine what history courses remain to be taken.

## Keyboard Competency

All students in Bachelor of Music programs will successfully complete a Keyboard Proficiency Examination (KPE). Those students commencing their music theory studies at Western will complete this requirement as part of the two-year music theory and aural skills/keyboard skills sequence.

Students transferring to Western with one or more quarters of music theory, aural skills, or keyboard skills will complete the requirement either by: 1) completing the remaining quarters of the theory and aural skills/keyboard skills sequence; or 2) taking the Keyboard Proficiency Examination. The appropriate course of action will be determined by the results of the Placement Examinations.

# Bachelor of Arts

## Music, BA

Department of Music, College of Fine and Performing Arts

### 60 Credits

### Introduction

The Music BA consists of a basic core of study in Music Theory and History along with private instruction and ensemble performance. The Bachelor of Arts is the liberal arts degree program in music which allows for individual preferences in intensifying studies in certain aspects of music and broadening the scope of academic pursuits.

Students in the BMus degree programs will be required to take the Keyboard Competency Examination by the end of the sophomore year or, in the case of transfer students, after three quarters of full-time study.

## Scholarships

In addition to general University scholarships, several awards are available from off-campus music organizations through The Western Foundation. Scholarship awards to incoming music majors will be based upon quality of entrance audition. For further information, please call the music advisor, PAC 263, at 360-650-4091 or refer to [cfpa.wvu.edu/music](http://cfpa.wvu.edu/music).

## Concert Attendance

All music majors will register for MUS 099, Concert Attendance (0 credits, S/U grading) each quarter in residence. Programs or ticket stubs from a minimum of eight approved concerts/recitals must be submitted each quarter to receive a satisfactory grade. For further information please call the music adviser at 360-650-4091.

## Program Advisement

All undergraduate music majors are assigned to the departmental undergraduate program advisor for scheduling and program approval.

## Bachelor of Music

To complete the Bachelor of Music degree requirements, it may be necessary for the student to take more than the usual 180 credit hours. Students should anticipate that these programs may require more than four years.



## Why Consider a Music Major?

This program is designed for the liberal arts student who may wish to complete minors or an additional major in another field in addition to completing a major in Music. Students in the Music BA program frequently complete studies in such fields as Theatre, Business, Mathematics or one of the languages.

Contact Information	
<b>Department Chair</b>	<b>Undergraduate Academic Advisor</b>
Christopher Bianco Performing Arts 271 360-650-3404 Christopher.Bianco@wwu.edu	Jon Bash Performing Arts 263 360-650-4091 Jon Bash@wwu.edu
Sample Careers	
Disc Jockey   Arts Administration Manager   Music Reporter   Recreation Director   Publicist   Music Promoter   Church Music Director   Music Critic	
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

## How to Declare (Admission and Declaration Process):

Freshmen and transfer students will be declared as their intended major after performing a successful audition on their main instrument or voice. Progress will be reviewed by coordinators in each applied and academic area.

**Admissions:** The prerequisite entrance into all Music programs is the entrance audition on the primary instrument or voice.

**Application Deadlines:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is June 1. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students electing to begin in a quarter other than fall should seek advisement before enrollment.

**Advising Tips:** The Department of Music provides individual advisement and program planning for all students majoring in music. This takes place during the registration period and by appointment. Many students prefer to spend a day on campus prior to transfer, at which time they may receive advisement and visit the various departmental performance groups and classes and meet with instructors. Interested students should follow the guidelines set forth in the Music section of this catalog prior to contacting the department. Write or phone the Department of Music, Western Washington University, Bellingham, Washington 98225-9107, phone 360-650-3130 or visit the website, <http://www.wwu.edu/music/>.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A minimum GPA of 2.5 in music courses is required for graduation with a degree in music.

## Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required.
- MUS 101 - Fundamentals of Music
- MUS 121A - Aural Skills I
- MUS 121B - Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123A - Aural Skills I
- MUS 123B - Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125A - Aural Skills I
- MUS 125B - Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221A - Aural Skills II

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- MUS 221B - Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223A - Aural Skills II
- MUS 223B - Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225A - Aural Skills II
- MUS 225B - Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- Nine credits from:
  - MUS 105 - Survey of Popular and Rock Music
  - MUS 205 - Survey of World Musical Cultures
  - MUS 231 - Elementary Composition
  - MUS 322 - Form and Analysis: Music to 1900
  - MUS 324A - Modal Counterpoint
  - MUS 324B - Tonal Counterpoint
  - MUS 326 - Orchestration/Arranging
  - MUS 331 - Composition
  - MUS 334 - Jazz Improvisation I
  - MUS 335 - Jazz Improvisation II
  - MUS 336 - Jazz Improvisation III
  - MUS 422 - Analytical Techniques: 20th-Century Music
  - MUS 431 - Composition
  - MUS 434 - Jazz Arranging I
  - MUS 435 - Jazz Arranging II
  - MUS 436 - Jazz Arranging III
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music
  - MUS 443B - History of Musical Genres: Solo Song
  - MUS 443C - History of Musical Genres: Opera
  - MUS 443D - History of Musical Genres: Keyboard Music
  - MUS 443E - History of Musical Genres: Chamber Music
  - MUS 443F - History of Musical Genres: Symphonic Music
  - MUS 443G - History of Musical Genres: Concerto
  - MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century
  - MUS 443I - History of Musical Genres: Opera I
  - MUS 443J - History of Musical Genres: Opera II
- Applied music on major instrument or voice: 6 credits minimum. Additional course credits in applied music instruction beyond the required minimum of 6 may be obtained under the advisement of the appropriate area coordinator.
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar
  - MUS 412 - Applied Instruction: Piano
  - MUS 413 - Applied Instruction: Strings
  - MUS 414 - Applied Instruction: Winds and Percussion
  - MUS 415 - Applied Instruction: Voice
  - MUS 416 - Applied Instruction: Classical Guitar
- Major Ensemble Requirement: 12 credits minimum\*\*
  - MUS 271 - University Choir
  - MUS 272 - Symphonic Band
  - MUS 471 - Concert Choir
  - MUS 472 - Wind Symphony

MUS 473 - University Symphony Orchestra

\*\*Pianists will take three quarters of major performing ensemble and three quarters of MUS 276 and/or 476 (piano accompanying).

## Bachelor of Music

### Music Education P-12, BMus

Department of Music, College of Fine and Performing Arts

**139-145 credits minimum\***

#### Introduction

The Music Education Degree Program is comprised of a comprehensive course of study in basic Music Theory, Music History, Conducting, and Music Education methods courses which lead to P-12 Certification as a Music Specialist.

The Music P-12 major must be accompanied by the Secondary Education Professional Program offered through Woodring College of Education.

#### Why Consider a Music Education P-12 Major?

A Music degree from Western Washington University is highly regarded in the profession. Western graduates become successful teachers, performers, composers and leaders in all fields of music. The strength of Western's Department of Music is its faculty's commitment to students and helping them achieve their goals and aspirations.

Contact Information		
<b>Undergraduate Academic Advisor</b> Jon Bash Performing Arts 263 360-650-4091 Jon.Bash@wwu.edu	<b>Program Coordinator</b> Patricia Bourne Performing Arts 45 360-650-2217 Patty.Bourne@wwu.edu	<b>Choral Music Education</b> Tim Fitzpatrick Performing Arts 39 360-650-7290 Timothy.Fitzpatrick@wwu.edu
<b>Secondary Education website</b> wce.wwu.edu/sec/secondary-education	<b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu	<b>Secondary Education Program Coordinator</b> Christina Carlson Miller Hall 401A 360-650-3327 Christina.Carlson@wwu.edu

#### Sample Careers

Secondary School Choir Director | Secondary School Band Director | Secondary School Orchestra Director/Elementary and/or Secondary General Music Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Freshmen and transfer students will be declared as their intended major after performing a successful audition on their main instrument or voice. Progress will be reviewed by coordinators in each applied and academic area.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument of voice.

**Application Deadlines:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is the end of the previous May. Due to the sequential nature

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of the music curriculum, midyear applications are not recommended. Students electing to begin in a quarter other than fall should seek advisement prior to enrollment.

**\*Includes 36 credits from the Secondary Education Program:** This major must be accompanied by courses in the professional preparation program in secondary education that are specified under Additional Requirements. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

A grade of C (2.0) or better is required for courses in the secondary education professional program and all courses required for the endorsement. A minimum GPA of 2.5 in music courses is required for graduation with a degree in music.

## Upper-division juries

Students must expect to achieve upper-division applied instruction (300-400-level) by the end of their third year in the program. Requirements for passing upper-division juries will be outlined in the policy statements of each instrumental and vocal area.

## Requirements

- MUS 099 - Concert Attendance  
Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required.
- MUS 101 - Fundamentals of Music
- MUS 121A - Aural Skills I
- MUS 121B - Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123A - Aural Skills I
- MUS 123B - Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125A - Aural Skills I
- MUS 125B - Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221A - Aural Skills II
- MUS 221B - Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223A - Aural Skills II
- MUS 223B - Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225A - Aural Skills II
- MUS 225B - Keyboard Skills II
- MUS 268 - Introduction to Music Education
- MUS 328 - Technology for Music Educators
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 352 - Instrumental Conducting
- MUS 353 - Choral Conducting
- MUS 362 - General Music Education
- MUS 460 - Literacy and Music
- MUS 461 - Advanced Techniques in General Music Education
- MUS 469 - Music Teaching Practicum II (must be taken twice)
- One course from:
  - MUS 354A - Advanced Choral Conducting
  - MUS 354B - Advanced Instrumental Conducting
- One course from: (Each quarter in residence)\*\*
  - MUS 271 - University Choir

MUS 272 - Symphonic Band

MUS 471 - Concert Choir

MUS 472 - Wind Symphony

MUS 473 - University Symphony Orchestra

\*\*Piano students will take six quarters of major performing ensemble and six quarters of MUS 276 and/or 476 (piano accompanying). Guitar students as follows: six quarters major performance ensemble (MUS 271 or 471), three quarters of Collegium (MUS 280 or 480) and three quarters Guitar Ensemble (MUS 282).

Applied music on major instrument or voice each quarter in residence; including at least three credits in courses numbered 312-316 or 412-416:

MUS 212 - Applied Instruction: Piano

MUS 213 - Applied Instruction: Strings

MUS 214 - Applied Instruction: Winds and Percussion

MUS 215 - Applied Instruction: Voice

MUS 216 - Applied Instruction: Classical Guitar

MUS 312 - Applied Instruction: Piano

MUS 313 - Applied Instruction: Strings

MUS 314 - Winds and Percussion

MUS 315 - Applied Instruction: Voice

MUS 316 - Applied Instruction: Classical Guitar

MUS 412 - Applied Instruction: Piano

MUS 413 - Applied Instruction: Strings

MUS 414 - Applied Instruction: Winds and Percussion

MUS 415 - Applied Instruction: Voice

MUS 416 - Applied Instruction: Classical Guitar

Select one of the following Emphasis Areas:

P-12 General Music Emphasis (7 credits). This emphasis leads to an endorsement in general music.

MUS 271 - University Choir

MUS 263 - Pedagogy/Lab: Voice

MUS 264P - Pedagogy/Lab: Percussion

One course from:

MUS 264L - Pedagogy/lab: Woodwinds I

MUS 264M - Pedagogy/lab: Woodwinds II

One course from:

MUS 264N - Pedagogy/Lab: Brass I

MUS 264O - Pedagogy/Lab: Brass II

One course from:

MUS 265C - Pedagogy/Lab: Strings I

MUS 265D - Pedagogy/Lab: Strings II

P-12 Choral Music Emphasis (12 credits). This emphasis leads to two endorsements: choral music and general music.

MUS 264P - Pedagogy/Lab: Percussion

MUS 366A - Vocal Diction: English and Italian

MUS 366B - Vocal Diction: German

MUS 366C - Vocal Diction: French

MUS 463 - Secondary Choral Music Education

MUS 466B - Applied Music Pedagogy: Voice

One course from:

MUS 264L - Pedagogy/lab: Woodwinds I

MUS 264M - Pedagogy/lab: Woodwinds II

One course from:

MUS 264N - Pedagogy/Lab: Brass I

MUS 264O - Pedagogy/Lab: Brass II

One course from:

MUS 265C - Pedagogy/Lab: Strings I

MUS 265D - Pedagogy/Lab: Strings II

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P-12 Instrumental Music Emphasis (13 credits). This emphasis leads to two endorsements: instrumental music and general music.

- MUS 271 - University Choir
- MUS 263 - Pedagogy/Lab: Voice
- MUS 264L - Pedagogy/lab: Woodwinds I
- MUS 264M - Pedagogy/lab: Woodwinds II
- MUS 264N - Pedagogy/Lab: Brass I
- MUS 264O - Pedagogy/Lab: Brass II
- MUS 264P - Pedagogy/Lab: Percussion
- MUS 265C - Pedagogy/Lab: Strings I
- MUS 265D - Pedagogy/Lab: Strings II
- MUS 465 - Secondary Instrumental Music Education

## Additional Requirements (36 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Music — Composition Concentration, BMus

Department of Music, College of Fine and Performing Arts

**118-122 credits**

### Introduction

Music composition majors learn a variety of skills enabling them to express their musical ideas in an effective manner that allows for performance of their creations. Each student receives private composition instruction along with instruction in basic music theory, music history, conducting, lessons on their major instrument or voice, and ensemble performance. While composition instruction will cover all modes, genres and periods, students may elect to concentrate their creativity on one or more specific areas. Instruction will include introduction and advanced courses in the use of computer hardware and software.

### Why Consider a Music Composition Concentration?

A Music degree from Western Washington University is highly regarded in the profession. Western graduates become successful teachers, performers, composers and leaders in all fields of music. The strength of Western's Department of Music is its faculty's commitment to students and helping them achieve their goals and aspirations.

Contact Information		
<b>Department Chair</b>	<b>Undergraduate Academic Advisor</b>	<b>Program Coordinator</b>
Christopher Bianco	Jon Bash	Roger Briggs
Performing Arts 271	Performing Arts 263	Performing Arts 141
360-650-3404	360-650-4091	360-650-3868
Christopher.Bianco@wwu.edu	Jon.Bash@wwu.edu	Roger.Briggs@wwu.edu
Sample Careers		
Professional Composer for Orchestras, Choirs or Wind Bands   Music Critic   Composer of Popular Music   Engineer/Mixer		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

Freshmen and transfer students will be declared as their intended major after performing a successful audition on their main instrument or voice and submitting a portfolio that has been approved by the Composition Area Coordinator. Progress will be reviewed by coordinators in each applied and academic area.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument or voice. Prospective Composition majors must also submit a portfolio of previous work for faculty review.

**Application Deadlines:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is June 1. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students electing to begin in a quarter other than fall should seek advisement prior to enrollment.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A minimum GPA of 2.5 in music courses is required for graduation with a degree in music.

## Upper-division juries

Students must expect to achieve upper-division applied instruction (300-400-level) by the end of their second year in the program. Requirements for passing upper-division juries will be outlined in the instrumental and vocal areas' policy statements.

## Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required
- MUS 101 - Fundamentals of Music
- MUS 121A - Aural Skills I
- MUS 121B - Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123A - Aural Skills I
- MUS 123B - Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125A - Aural Skills I
- MUS 125B - Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221A - Aural Skills II
- MUS 221B - Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223A - Aural Skills II
- MUS 223B - Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225A - Aural Skills II
- MUS 225B - Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 352 - Instrumental Conducting
- MUS 353 - Choral Conducting
- Two courses from:
  - MUS 322 - Form and Analysis: Music to 1900
  - MUS 324A - Modal Counterpoint
  - MUS 324B - Tonal Counterpoint
  - MUS 326 - Orchestration/Arranging
  - MUS 422 - Analytical Techniques: 20th-Century Music

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- One course from:
  - MUS 441 - Notation
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music
  - MUS 443B - History of Musical Genres: Solo Song
  - MUS 443C - History of Musical Genres: Opera
  - MUS 443D - History of Musical Genres: Keyboard Music
  - MUS 443E - History of Musical Genres: Chamber Music
  - MUS 443F - History of Musical Genres: Symphonic Music
  - MUS 443G - History of Musical Genres: Concerto
  - MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century
  - MUS 443I - History of Musical Genres: Opera I
  - MUS 443J - History of Musical Genres: Opera II
  - MUS 444 - Shakespeare and Musicvoice majors must take 443b or 443c
- Three courses from:
  - MUS 275 - Chamber Jazz Ensembles
  - MUS 278 - Opera Workshop
  - MUS 280 - Collegium Musicum
  - MUS 281 - Applied Chamber Music
  - MUS 282 - Guitar Ensemble
  - MUS 283 - Chamber Vocal Ensembles
  - MUS 284 - Vocal Jazz Ensemble
  - MUS 475 - Chamber Jazz Ensemble
  - MUS 478 - Advanced Opera Production
  - MUS 480 - Advanced Collegium Musicum
  - MUS 481 - Advanced Applied Chamber Music
  - MUS 483 - Advanced Chamber Vocal Ensembles
  - MUS 484 - Advanced Vocal Jazz Ensemble
  - MUS 485 - New Music Ensemble
- One course from:
  - MUS 354A - Advanced Choral Conducting
  - MUS 354B - Advanced Instrumental Conducting
- One course from:
  - MUS 499 - Senior Recital
  - MUS 490 - Senior Thesis
- 21 credits minimum including at least three credits of 431
  - MUS 231 - Elementary Composition
  - MUS 331 - Composition
  - MUS 431 - Composition
- Applied music on major instrument or voice each quarter in residence (minimum 12 credits); including at least three credits in courses numbered 312-316 or 412-416:
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar
  - MUS 412 - Applied Instruction: Piano
  - MUS 413 - Applied Instruction: Strings
  - MUS 414 - Applied Instruction: Winds and Percussion
  - MUS 415 - Applied Instruction: Voice
  - MUS 416 - Applied Instruction: Classical Guitar
- One course from: (Each quarter in residence minimum 24 credits)\*\*
  - MUS 271 - University Choir
  - MUS 272 - Symphonic Band
  - MUS 471 - Concert Choir



MUS 472 - Wind Symphony

MUS 473 - University Symphony Orchestra

□ Electives: 5 credits selected under advisement

\*\*Piano students will take a combination of major performing ensemble and MUS 276/476 (piano accompanying) as follows: six quarters major performance ensemble, three quarters accompanying, remaining quarters in either piano accompanying or major performance ensemble. Guitar students as follows: six quarters Major Performance Ensemble (MUS 271- or 471); three quarters of Collegium (MUS 280 or 480); and three quarters of Guitar Ensemble (MUS 282).

## Music — History and Literature Concentration, BMus

Department of Music, College of Fine and Performing Arts

**116-121 credits**

### Introduction

In addition to core studies in Music Theory and History, students in the Music History and Literature Degree Program pursue in-depth study in a variety of topics related to the history of musical composition.

### Why Consider a Concentration in Music History and Literature?

A Music degree from Western Washington University is highly regarded in the profession. Western graduates become successful teachers, performers, composers and leaders in all fields of music. The strength of Western's Department of Music is its faculty's commitment to students and helping them achieve their goals and aspirations.

#### Contact Information

##### Department Chair

Christopher Bianco  
Performing Arts 271  
360-650-3404  
Christopher.Bianco@wwu.edu

##### Undergraduate Academic Advisor

Jon Bash  
Performing Arts 263  
360-650-4091  
Jon.Bash@wwu.edu

##### Program Coordinator

Bertil Van Boer  
Performing Arts 149  
360-650-2282  
Bertil.vanBoer@wwu.edu

#### Sample Careers

Musicologist | College Music History Faculty | Music Reporter | Music Librarian | Music Critic | Public Relations Specialist | Music Publishing Specialist | Music Promoter

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Freshmen and transfer students will be declared as their intended major after performing a successful audition on their main instrument or voice. Progress will be reviewed by coordinators in each applied and academic area.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument or voice.

**Application Deadline:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is June 1. Students electing to begin in a quarter other than fall should seek advisement prior to enrollment.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A minimum GPA of 2.5 in music courses is required for graduation with a degree in music.

### Upper-division juries

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Students must expect to achieve upper-division applied instruction (300-400-level) by the end of their second year in the program. Requirements for passing upper-division juries will be outlined in the instrumental and vocal areas' policy statements.

## Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required.
- MUS 101 - Fundamentals of Music
- MUS 121A - Aural Skills I
- MUS 121B - Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123A - Aural Skills I
- MUS 123B - Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125A - Aural Skills I
- MUS 125B - Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221A - Aural Skills II
- MUS 221B - Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223A - Aural Skills II
- MUS 223B - Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225A - Aural Skills II
- MUS 225B - Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 351 - Basic Conducting
- MUS 441 - Notation
- MUS 490 - Senior Thesis
- Two courses from:
  - MUS 322 - Form and Analysis: Music to 1900
  - MUS 324A - Modal Counterpoint
  - MUS 324B - Tonal Counterpoint
  - MUS 326 - Orchestration/Arranging
  - MUS 422 - Analytical Techniques: 20th-Century Music
- Two courses from:
  - MUS 275 - Chamber Jazz Ensembles
  - MUS 278 - Opera Workshop
  - MUS 280 - Collegium Musicum
  - MUS 281 - Applied Chamber Music
  - MUS 282 - Guitar Ensemble
  - MUS 283 - Chamber Vocal Ensembles
  - MUS 284 - Vocal Jazz Ensemble
  - MUS 475 - Chamber Jazz Ensemble
  - MUS 478 - Advanced Opera Production
  - MUS 480 - Advanced Collegium Musicum
  - MUS 481 - Advanced Applied Chamber Music
  - MUS 483 - Advanced Chamber Vocal Ensembles
  - MUS 484 - Advanced Vocal Jazz Ensemble
  - MUS 485 - New Music Ensemble
- Two courses from:
  - MUS 280 - Collegium Musicum
  - MUS 480 - Advanced Collegium Musicum
- 12 credits from:
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music

- MUS 443B - History of Musical Genres: Solo Song
- MUS 443C - History of Musical Genres: Opera
- MUS 443D - History of Musical Genres: Keyboard Music
- MUS 443E - History of Musical Genres: Chamber Music
- MUS 443F - History of Musical Genres: Symphonic Music
- MUS 443G - History of Musical Genres: Concerto
- MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century
- MUS 443I - History of Musical Genres: Opera I
- MUS 443J - History of Musical Genres: Opera II
- Applied music on major instrument or voice each quarter in residence (minimum 12 credits); including at least three credits in courses numbered 312-316 and 412-416.
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar
  - MUS 412 - Applied Instruction: Piano
  - MUS 413 - Applied Instruction: Strings
  - MUS 414 - Applied Instruction: Winds and Percussion
  - MUS 415 - Applied Instruction: Voice
  - MUS 416 - Applied Instruction: Classical Guitar
- Foreign Language: Students must complete an examination in French or German.
- One course from: (Each quarter in residence minimum 24 credits)\*\*\*
  - MUS 271 - University Choir
  - MUS 272 - Symphonic Band
  - MUS 471 - Concert Choir
  - MUS 472 - Wind Symphony
  - MUS 473 - University Symphony Orchestra

\*\*\*Piano students will take a combination of major performing ensemble and MUS 276/476 (piano accompanying) as follows: six quarters major performance ensemble, three quarters accompanying, remaining quarters in either piano accompanying or major performance ensemble. Guitar students as follows: six quarters Major Performance Ensemble (MUS 271- or 471); three quarters of Collegium (MUS 280 or 480); and three quarters of Guitar Ensemble (MUS 282).
- Electives: 14 credits selected under advisement

## Music — Performance Concentration, BMus

Department of Music, College of Fine and Performing Arts

### 117-122 credits

#### Introduction

In addition to a core set of courses in Music Theory and History, students in the performance degree program will receive comprehensive instruction on their primary instrument or voice.

#### Why Consider a Concentration in Music Performance?

A Music degree from Western Washington University is highly regarded in the profession. Western graduates become successful teachers, performers, composers and leaders in all fields of music. The strength of Western's Department of Music is its faculty's commitment to students and helping them achieve their goals and aspirations.

# MUSIC

## Contact Information

### Undergraduate Academic Advisor

Jon Bash  
Performing Arts 263  
360-650-4091  
Jon.Bash@wwu.edu

### Percussion Coordinator

Patrick Roulet  
Performing Arts 223  
Patrick.Roulet@wwu.edu

### Vocal Coordinator

Leslie Guelker-Cone  
Performing Arts 043  
Leslie.Guelker-Cone@wwu.edu

### Brass Coordinator

Gustavo Camacho  
Performing Arts 271  
Gustavo.Camacho@wwu.edu

### Piano Coordinator

Milica Jelaca Jovanovic  
Performing Arts 17  
Milica.Jelacajovanovic@wwu.edu

### Woodwind Coordinator

Lisa McCarthy  
Performing Arts 63  
Lisa.McCarthy@wwu.edu

### Guitar Coordinator

David Feingold  
Performing Arts 271  
David.Feingold@wwu.edu

### String Coordinator

Walter Schwede  
Performing Arts 139  
Walter.Schwede@wwu.edu

## Sample Careers

University/College Professor | Studio Musician | Orchestra Musician | Arts Administrator/Manager | Member of Professional Opera | Church Music Director | Private Teacher | Composer

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Admission and Declaration Process

Freshmen and transfer students will be declared as their intended major after performing a successful audition on their main instrument or voice. Progress will be reviewed by coordinators in each applied and academic area.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument or voice.

**Application Deadline:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is June 1. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students electing to begin in a quarter other than fall should seek advisement before enrollment.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A minimum GPA of 2.5 in music courses is required for graduation with a degree in music.

## Upper-division juries

Students must expect to achieve upper-division applied instruction (300-400-level) by the end of their second year in the program. Requirements for passing upper-division juries will be outlined in the instrumental and vocal areas' policy statements.

## Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required
- MUS 101 - Fundamentals of Music
- MUS 121A - Aural Skills I
- MUS 121B - Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123A - Aural Skills I
- MUS 123B - Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125A - Aural Skills I
- MUS 125B - Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221A - Aural Skills II

- MUS 221B - Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223A - Aural Skills II
- MUS 223B - Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225A - Aural Skills II
- MUS 225B - Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 351 - Basic Conducting
- MUS 499 - Senior Recital
- One course from:
  - MUS 441 - Notation
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music
  - MUS 443B - History of Musical Genres: Solo Song
  - MUS 443C - History of Musical Genres: Opera
  - MUS 443D - History of Musical Genres: Keyboard Music
  - MUS 443E - History of Musical Genres: Chamber Music
  - MUS 443F - History of Musical Genres: Symphonic Music
  - MUS 443G - History of Musical Genres: Concerto
  - MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century
  - MUS 443I - History of Musical Genres: Opera I
  - MUS 443J - History of Musical Genres: Opera II
  - MUS 444 - Shakespeare and Music  
voice majors must take MUS 443B or MUS 443C
- Two courses from:
  - MUS 322 - Form and Analysis: Music to 1900
  - MUS 324A - Modal Counterpoint
  - MUS 324B - Tonal Counterpoint
  - MUS 326 - Orchestration/Arranging
  - MUS 422 - Analytical Techniques: 20th-Century Music
- Four courses from:
  - MUS 275 - Chamber Jazz Ensembles
  - MUS 278 - Opera Workshop
  - MUS 280 - Collegium Musicum
  - MUS 281 - Applied Chamber Music
  - MUS 282 - Guitar Ensemble
  - MUS 283 - Chamber Vocal Ensembles
  - MUS 284 - Vocal Jazz Ensemble
  - MUS 475 - Chamber Jazz Ensemble
  - MUS 478 - Advanced Opera Production
  - MUS 480 - Advanced Collegium Musicum
  - MUS 481 - Advanced Applied Chamber Music
  - MUS 483 - Advanced Chamber Vocal Ensembles
  - MUS 484 - Advanced Vocal Jazz Ensemble
  - MUS 485 - New Music Ensemble
- Applied music on major instrument or voice each quarter in residence, including at least three credits from 412-416: (minimum 30 credits)
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar
  - MUS 412 - Applied Instruction: Piano

## MUSIC

- MUS 413 - Applied Instruction: Strings
- MUS 414 - Applied Instruction: Winds and Percussion
- MUS 415 - Applied Instruction: Voice
- MUS 416 - Applied Instruction: Classical Guitar
- Entrance by performance audition—student must expect to achieve upper-division applied instruction by the sophomore year.
- Advanced Applied Pedagogy (minimum 4 credits):
  - MUS 466 - Applied Music Pedagogy
  - MUS 466A - Applied Music Pedagogy: Piano
  - MUS 466B - Applied Music Pedagogy: Voice
- Junior Recital (required performance; prerequisite for Senior Recital; not a course; schedule with approval of Applied Instructor; see Music Advisor).
- One course from: (Each quarter in residence minimum 24 credits)\*\*
  - MUS 271 - University Choir
  - MUS 272 - Symphonic Band
  - MUS 471 - Concert Choir
  - MUS 472 - Wind Symphony
  - MUS 473 - University Symphony Orchestra
- Electives: 8 credits minimum selected under advisement. Piano student must take Applied Music Literature – MUS 467 (6 credits minimum). Voice students will take Voice Studies – MUS 166A & 166B (5 credits), and Vocal Diction – MUS 366A, 366B, and 366C (3 credits). Guitar students must take Fretboard Harmony – MUS 367 (minimum 1 credit), and Guitar History & Repertory – MUS 468A and 468B (4 credits minimum).

\*\*Piano students will take a combination of major performing ensemble and MUS 276/476 (piano accompanying) as follows: three quarters major performing ensemble, remaining quarters piano accompanying. Guitar students as follows: six quarters Major Performance Ensemble (MUS 271-or 471); three quarters of Collegium (MUS 280 or 480); and three quarters of Guitar ensemble (MUS 282).

## Master of Music

### Music, Thesis, MMus

#### College of Fine and Performing Arts

##### Graduate Faculty

**Bianco, Christopher**, DMA, wind, ensemble, conducting, Chair.  
**Bone, Amber Sudduth**, DMA, voice, opera.  
**Bourne, Patricia**, Ed. D, music education.  
**Briggs, Roger D.**, PhD, composition, orchestra.  
**Camacho, Gustavo**, DMA, horn, brass, chamber music.  
**Donnellan, Grant**, MMus, violin.  
**Dudenbostel, Ryan**, DMA, conducting.  
**Feingold, David**, MMus, guitar.  
**Fitzpatrick, Timothy**, MMus, choral music education.  
**Friesen, John**, DMA, cello, chamber music.  
**Gilliam, Jeffrey**, MMus, piano, piano accompanying.  
**Guelker-Cone, Leslie**, DMA, choral music, conducting.  
**Hamilton, Bruce**, DMus, composition, theory/analysis, electro-acoustic music.  
**Jelaca-Jovanovic, Milica**, DMA, piano, piano literature, piano pedagogy.  
**Roulet, Patrick**, DMA, percussion.  
**Schwede, Walter**, MMus, violin, chamber music.  
**Sommer, Lesley**, DM, composition, theory/analysis.  
**Van Boer, Bertil H.**, PhD, musicology.  
**Woods, Kevin**, MMus, jazz studies.

Program Advisor: Dr. Bertil Van Boer, Performing Arts Center 147, (360) 650-2282.

## Introduction

The Master of Music degree consists of a core of courses which serve as a common foundation and a set of more specialized courses in one of five concentrations: composition, music history and literature, performance, conducting and music education. The degree may be used as a preparation for doctoral studies in music, or it may serve as a terminal degree. Minimum credits for each concentration is 45.

The composition concentration includes course work in composition, music history, and music theory as well as a thesis (original composition). Ensembles, studio instruction, and course work in conducting are also available.

The music history and literature concentration includes seminars in music history, work in notation, courses in music theory, performance (including the Collegium Musicum), and a written thesis.

The performance concentration includes vocal or instrumental studio instruction, work with small and large ensembles, and course work in music history and music theory. Pianists may emphasize solo performance or accompanying. Studies in jazz areas are available.

The conducting concentration includes course work in conducting, music history, and music theory, and a conducting practicum to fulfill the thesis requirement. Ensembles and studio instruction are also available.

The music education concentration includes courses in music education, music history and music theory courses. Courses within the Woodring College of Education are permissible, as well. Ensembles and studio instruction are also available. The thesis can be a written project, a recital or a conducting practicum.

## Goals

To prepare students for professional-level work in music, as performers (singers, instrumentalists or conductors), composers, scholars, educators, or in a combination of these areas.

## Prerequisites and Examinations

Prerequisite for admission to the Master of Music program is a BM or BA in Music degree. In addition, each of the special concentrations has specific requirements for acceptance into the program, as follows:

Students in the Composition concentration must submit a portfolio of at least three original recent compositions for evaluation by the composition-theory faculty.

Students in the Performance concentration must pass an audition before members of the performance faculty. If a live audition cannot be done, a live link may suffice at the discretion of the faculty. Vocal performers must demonstrate competence in German, French and Italian diction.

Students in the History and Literature concentration must provide substantial scholarly work or term papers. Applicants should also demonstrate reading ability in French or German.

Students in the Conducting concentration must pass an audition with the appropriate faculty members. If a live audition cannot be done, a live link may suffice at the discretion of the faculty. Choral conductors should demonstrate competence in vocal pedagogy and in German, French, Italian, and Latin diction.

Students in the Music Education concentration are accepted following an interview, either in person or through an e-conference, as well as an audition indicating at least a 300 level of performance ability. This may be arranged with the appropriate studio faculty. Evidence for admission is based upon evaluation of written research in the field of music education on the undergraduate level, the completion of at least one year of successful public school music instruction, and evidence of an appropriate level of musicianship.

Placement examinations in music theory and music history must be taken prior to beginning the program. These will be sent to a proctor after admission to the program and will indicate whether there exist curricular deficiencies.

Courses necessary to remove deficiencies are not credited toward the degree.

# MUSIC

Please note: Admission to the Master of Music program requires acceptance both of the general academic requirements of the Graduate School and by the faculty of the concentration within which the degree is to be undertaken.

## Basic Requirements for All Concentrations (minimum 45 credits)

- MUS 541 - History/Analysis: Music to 1600 (4)
- MUS 542 - History/Analysis: Music from 1600-1830 (4)
- MUS 543 - History/Analysis: Music from 1830-Present (4)
- MUS 503 - Introduction to Graduate Study of Music (4)
- MUS 532 - Analytical Techniques: 20th-Century Musical Practices (3)
- MUS 533 - Analytical Techniques: 19th-Century Musical Styles and Practices (3)
- MUS 690 - Thesis (6)

All students admitted to graduate study must register for at least one course in the area of basic requirements during each quarter of enrollment until those requirements are fulfilled.

## Requirements and Electives for Each Concentration

### Composition Concentration

- MUS 534 - Composition (12)
- Electives (5)

### History and Literature Concentration

- MUS 538 - Notation
- MUS 539 - History of Musical Genres
- MUS 580 - Advanced Collegium Musicum
- MUS 550 - Seminar in the History of Music (3)

### Performance Concentration

- One course from:
  - MUS 574 - Jazz Ensembles
  - MUS 575 - Chamber Jazz Ensembles
  - MUS 578 - Opera Production
  - MUS 580 - Advanced Collegium Musicum
  - MUS 581 - Applied Chamber Music
  - MUS 583 - Chamber Vocal Ensembles
  - or any approved 400-level or 500-level course(s)
- 9 credits from:
  - MUS 511 - Individual Instruction: Advanced Organ
  - MUS 512 - Individual Instruction: Advanced Piano
  - MUS 513 - Individual Instruction: Advanced Strings
  - MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion
  - MUS 515 - Individual Instruction: Advanced Voice
  - MUS 518 - Individual Instruction: Applied Jazz
  - MUS 576 - Accompanying
- Electives (2)

### Conducting Concentration (Choral Conducting, Orchestral Conducting, Band Conducting)

- Conducting Studies (9-17)
  - MUS 501 - Instrumental Conducting and Rehearsal Techniques
  - MUS 502 - Choral Conducting and Literature
  - MUS 519 - Individual Instruction - Advanced Applied Conducting
  - approved 400-level and/or 500-level course(s)



- Basic Musicianship (0-9) Courses to be selected from the following (any not selected under Basic Requirements):

- MUS 541 - History/Analysis: Music to 1600
- MUS 542 - History/Analysis: Music from 1600-1830
- MUS 543 - History/Analysis: Music from 1830-Present
- MUS 550 - Seminar in the History of Music
- MUS 531 - Arranging
- MUS 534 - Composition
- and approved 400-level and/or 500-level course(s)

- Applied Music (0-9)

- MUS 511 - Individual Instruction: Advanced Organ
- MUS 512 - Individual Instruction: Advanced Piano
- MUS 513 - Individual Instruction: Advanced Strings
- MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion
- MUS 515 - Individual Instruction: Advanced Voice
- MUS 518 - Individual Instruction: Applied Jazz
- and/or approved 411-418 course(s)

- Ensemble (0-9)

- Approved 400-level and/or 500-level ensemble course(s)

Music Education Concentration (Instrumental Music Supervision, Choral Music Supervision, Choral Conducting, Orchestral Conducting, Band Conducting)

- Professional Understandings/Techniques (6-9)

- Courses to be selected from the following:
- MUS 501 - Instrumental Conducting and Rehearsal Techniques
- MUS 502 - Choral Conducting and Literature
- MUS 525 - Brass and Percussion Techniques and Materials
- or any approved 400-level or 500-level course(s)

- Basic Musicianship (3-9)

- Courses to be selected from the following: (any not elected under Basic Requirements)
- MUS 531 - Arranging
- MUS 534 - Composition
- MUS 541 - History/Analysis: Music to 1600
- MUS 542 - History/Analysis: Music from 1600-1830
- MUS 543 - History/Analysis: Music from 1830-Present
- MUS 550 - Seminar in the History of Music
- or any approved 400-level or 500-level course(s)

- Applied Music (0-9)

- MUS 511 - Individual Instruction: Advanced Organ
- MUS 512 - Individual Instruction: Advanced Piano
- MUS 513 - Individual Instruction: Advanced Strings
- MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion
- MUS 515 - Individual Instruction: Advanced Voice
- MUS 518 - Individual Instruction: Applied Jazz
- or approved 411-418

- Ensemble (0-9)

- Approved 400-level or 500-level ensemble course(s)

- Guided electives in music education (3-9)

## Minor

### Music Minor

Department of Music, College of Fine and Performing Arts

**30 credits**

#### Introduction

# MUSIC

The Music Minor consists of a basic core of study in music theory along with ensemble performance, an introduction to music history, and optional private instruction. The minor allows for individual preferences in intensifying studies in certain aspects of music and broadening the scope of academic pursuits while focusing on a major in a different field.

## Why Consider a Music Minor?

This program is designed for the liberal arts student who has an interest in a higher level of music education but may wish to complete a major in another field. Students in the Music Minor program frequently complete studies in such fields as Theatre, Business, Journalism, Mathematics or one of the languages.

### Contact Information

#### Department Chair

Christopher Bianco  
Performing Arts 271  
360-650-3404  
Christopher.Bianco@wwu.edu

#### Undergraduate Academic Advisor

Jon Bash  
Performing Arts 263  
360-650-4091  
Jon.Bash@wwu.edu

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Freshmen and transfer students will be declared as a Music Minor after meeting with the appropriate instrumental or vocal area coordinator and advisor and completing an audition.

**Application deadlines:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is the end of the previous May. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students electing to begin in a quarter other than fall should seek advisement prior to enrollment.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- MUS 101 - Fundamentals of Music
- MUS 121A - Aural Skills I
- MUS 121B - Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123A - Aural Skills I
- MUS 123B - Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125A - Aural Skills I
- MUS 125B - Keyboard Skills I
- One course from:
  - MUS 104 - The Art of Listening to Music
  - MUS 105 - Survey of Popular and Rock Music
- One course from:
  - MUS 202 - Jazz: Genesis and Evolution
  - MUS 205 - Survey of World Musical Cultures
- 12 credits selected under advisement

## Music Courses

### MUS 098 - Piano sight-reading

Music majors entering with piano as their major instrument of study are expected to be proficient sight readers and to accompany instrumentalists and vocalists as part of their training. Pianists must be able to pass a sight-reading proficiency exam; if they cannot, this course is required. A student will continue to repeat this class until the sight-reading exam is passed. S/U grading.

**Credits:** 0  
**Grade Mode:** S/U

### MUS 099 - Concert Attendance

All music pre-majors and majors are required to attend a minimum of eight approved concerts and/or recitals each quarter in residence. S/U grading.

**Credits:** 0  
**Grade Mode:** S/U

### MUS 100 - Marrowstone Music Festival

A combined theory, composition, and music literature class keyed to the works students will perform during the Marrowstone Music Festival. Students will gain insight into these works and have the opportunity to develop their own compositional skills. S/U grading.

**Prerequisites & Notes:** concurrent participation/enrollment in Marrowstone Music Festival  
**Credits:** 1  
**Grade Mode:** Letter

### MUS 101 - Fundamentals of Music

The study of musical construction for those unfamiliar with the fundamentals of notation (pitch and rhythm), major and minor scales, intervals, triads and keys, with particular attention to their practical application.

**Credits:** 2  
**Grade Mode:** Letter

### MUS 102 - Introduction to Music Theory and Ear Training

Courses designed to strengthen the prospective music major's knowledge of fundamental theoretical principles and to introduce the basic aural/reading skills needed to begin the musicianship sequence.

**Prerequisites & Notes:** MUS 101 or instructor permission  
**Credits:** 3  
**Grade Mode:** Letter

### MUS 103 - Introduction to Music Theory and Ear Training

Courses designed to strengthen the prospective music major's knowledge of fundamental theoretical principles and to introduce the basic aural/reading skills needed to begin the musicianship sequence.

**Prerequisites & Notes:** MUS 102  
**Credits:** 3  
**Grade Mode:** Letter

### MUS 104 - The Art of Listening to Music

Open to all students. Non-technical basis for enjoyable listening to music; performance practices relating to symphony orchestras, instrumental ensembles, opera, choral groups and solo performance.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### MUS 105 - Survey of Popular and Rock Music

Open to all students. An introduction to the genres, forms and composers of popular music within the framework of a study of its historical and cultural context.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### MUS 106 - Intro to Hip-Hop

Study of the major works of Hip-Hop, including the history, culture, and influence of the art form from its onset in the 70's to its place in the popular music of the 21st century.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### MUS 107 - Introduction to Country Music

Explore the country music genre, including major performers, songwriters, songs and impact on culture from the early times on the radio to the twenty-first century.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

# MUSIC

## **MUS 108 - Survey of Video Game Music**

A critical overview of the history, development, and current state of music & audio in video games & interactive media and surrounding issues.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

## **MUS 116 - Guitar Technologies: Guitar for Beginners**

This course serves as an introduction to the guitar. Techniques include both basics of plectrum and finger-style technique. Also covered are chords, strumming and finger-style applications for arpeggio playing, leading to basic accompaniment. S/U grading.

**Credits:** 2

**Grade Mode:** S/U

## **MUS 121A - Aural Skills I**

The development of aural competence in and visual familiarity with the sounds and symbols of the diatonic major and minor system. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation.

**Prerequisites & Notes:** Music major. Co-requisite: MUS 121B.

**Credits:** 1

**Grade Mode:** Letter

## **MUS 121B - Keyboard Skills I**

The development of competence in and familiarity with the piano keyboard, reading and playing in the diatonic major and minor systems. Exercises and drill in scales, harmonization, accompaniment, prepared and sight reading.

**Prerequisites & Notes:** Music major. Co-requisite: MUS 121A.

**Credits:** 1

**Grade Mode:** Letter

## **MUS 122 - Theoretical and Analytical Skills I**

Study of and practical experience in using the basic materials of musical construction including notation, melody, harmony, rhythm and form.

**Prerequisites & Notes:** MUS 101 or equivalent; music major

**Credits:** 2

**Grade Mode:** Letter

## **MUS 123A - Aural Skills I**

The development of aural competence in and visual familiarity with the sounds and symbols of the diatonic major and minor system. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation.

**Prerequisites & Notes:** Music major; MUS 121A. Co-requisite: MUS 123B.

**Credits:** 1

**Grade Mode:** Letter

## **MUS 123B - Keyboard Skills I**

The development of competence in and familiarity with the piano keyboard, reading and playing in the diatonic major and minor systems. Exercises and drill in scales, harmonization, accompaniment, prepared and sight reading.

**Prerequisites & Notes:** Music major; MUS 121B. Co-requisite: MUS 123A.

**Credits:** 1

**Grade Mode:** Letter

## **MUS 124 - Theoretical and Analytical Skills I**

Study of and practical experience in using the basic materials of musical construction including notation, melody, harmony, rhythm and form.

**Prerequisites & Notes:** MUS 122; music major

**Credits:** 2

**Grade Mode:** Letter

## **MUS 125A - Aural Skills I**

The development of aural competence in and visual familiarity with the sounds and symbols of the diatonic major and minor system. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation.

**Prerequisites & Notes:** Music major; MUS 123A. Co-requisite: MUS 125B.

**Credits:** 1

**Grade Mode:** Letter

## **MUS 125B - Keyboard Skills I**

The development of competence in and familiarity with the piano keyboard, reading and playing in the diatonic major and minor systems. Exercises and drill in scales, harmonization, accompaniment, prepared and sight reading.

**Prerequisites & Notes:** Music major; MUS 123B. Co-requisite: MUS 125A.

**Credits:** 1

**Grade Mode:** Letter

## **MUS 126 - Theoretical and Analytical Skills I**

Study of and practical experience in using the basic materials of musical construction including notation, melody, harmony, rhythm and form.

**Prerequisites & Notes:** MUS 124; music major  
**Credits:** 2  
**Grade Mode:** Letter

### **MUS 160 - Preparatory Class Piano**

Designed for students with no keyboard experience. Basic reading skills and technique.

**Credits:** 1  
**Grade Mode:** Letter

### **MUS 163 - Class Voice**

Study of basic vocal production skills and repertoire preparation.

**Credits:** 2  
**Grade Mode:** Letter

### **MUS 166A - Introduction to Voice Studies A**

This course will prepare the student for success in solo and choral voice performance at the university level. The student will be exposed to linguistic and musical resources for the preparation and performance of vocal music in various languages. Efficient practice and research techniques are also integral to the course.

**Prerequisites & Notes:** Admission to music program as a voice pre-major.  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 166B - Introduction to Voice Studies B**

A continuation of MUS 166A with added emphasis on skills necessary for success as a vocal soloist. The student will be exposed to more in-depth linguistic and musical resources such as: recital preparation, performance anxiety, and a general survey of the solo vocal repertoire.

**Prerequisites & Notes:** Admission to the music program as a voice pre-major, MUS 166A.  
**Credits:** 2  
**Grade Mode:** Letter

### **MUS 168 - Exploring the World of Teaching Music**

Overview of strategies for effective teaching, rehearsal techniques and strategies, motivational tools, appropriate body language, assertive classroom management. S/U grading.

**Prerequisites & Notes:** concurrent

participation/enrollment in Marrowstone Music Festival

**Credits:** 1  
**Grade Mode:** S/U

### **MUS 173 - Marrowstone Orchestra**

Study, rehearsal and performance of orchestra literature appropriate to students participating in the Marrowstone Music Festival. S/U grading.

**Prerequisites & Notes:** concurrent participation/enrollment in Marrowstone Music Festival  
**Credits:** 1  
**Grade Mode:** S/U

### **MUS 181 - Marrowstone Chamber Music**

Study, rehearsal and performance of chamber music appropriate to students participating in the Marrowstone Music Festival. S/U grading.

**Prerequisites & Notes:** concurrent participation/enrollment in Marrowstone Music Festival  
**Credits:** 1  
**Grade Mode:** S/U

### **MUS 202 - Jazz: Genesis and Evolution**

Open to all students. Personalities, styles and social/cultural influences on jazz from its beginning to the present day.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **MUS 205 - Survey of World Musical Cultures**

Open to all students. A general introduction to the musical styles of major world cultures, including those of Africa, India, Asia, Indonesia and Eastern Europe. Focus on the role played by music in each society.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **MUS 211 - Applied Instruction: Organ**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
**Credits:** 1-4  
**Grade Mode:** Letter

### **MUS 212 - Applied Instruction: Piano**

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Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 213 - Applied Instruction: Strings

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 213A - Applied Instruction: Violin

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 213B - Applied Instruction: Viola

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 213C - Applied Instruction: Cello

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 213D - Applied Instruction: Double Bass

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 213E - Applied Instruction: Harp

Repeatable for credit.

**Prerequisites & Notes:** music mjr; min applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 214 - Applied Instruction: Winds and Percussion

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 214A - Applied Instruction: Flute

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 214B - Applied Instruction: Oboe

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 214C - Applied Instruction: Clarinet

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 214D - Applied Instruction: Bassoon

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 214E - Applied Instruction: Saxophone

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4

**Grade Mode:** Letter

### MUS 214F - Applied Instruction: French Horn

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 214G - Applied Instruction: Trumpet**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 214H - Applied Instruction: Trombone**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 214I - Applied Instruction: Euphonium**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 214J - Applied Instruction: Tuba**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 214K - Applied Instruction: Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 215 - Applied Instruction: Voice**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 216 - Applied Instruction: Classical Guitar**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

**Credits:** 1-4  
**Grade Mode:** Letter

**MUS 221A - Aural Skills II**

The development of aural competence in and visual familiarity with the sounds and symbols of the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation.

**Prerequisites & Notes:** Music major; MUS 125A. Co-requisite: MUS 221B.

**Credits:** 1  
**Grade Mode:** Letter

**MUS 221B - Keyboard Skills II**

The development of competence in and familiarity with the piano keyboard, reading and playing in the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in scales, harmonization, accompaniment, prepared and sight reading.

**Prerequisites & Notes:** Music major; MUS 125B. Co-requisite: MUS 221A.

**Credits:** 1  
**Grade Mode:** Letter

**MUS 222 - Theoretical and Analytical Skills II**

Advanced study of and practical experience in using the materials of musical construction including extended, chromatic, and non-tertian harmonic structures and complex musical forms.

**Prerequisites & Notes:** MUS 126; music major  
**Credits:** 2

**Grade Mode:** Letter

**MUS 223A - Aural Skills II**

The development of aural competence in and visual familiarity with the sounds and symbols of the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation.

**Prerequisites & Notes:** Music major; MUS 221A. Co-requisite: MUS 223B.

**Credits:** 1  
**Grade Mode:** Letter

**MUS 223B - Keyboard Skills II**

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The development of competence in and familiarity with the piano keyboard, reading and playing in the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in scales, harmonization, accompaniment, prepared and sight reading.

**Prerequisites & Notes:** Music major; MUS 221B.  
Co-requisite: MUS 223A.

**Credits:** 1

**Grade Mode:** Letter

### MUS 224 - Theoretical and Analytical Skills II

Advanced study of and practical experience in using the materials of musical construction including extended, chromatic, and non-tertian harmonic structures and complex musical forms.

**Prerequisites & Notes:** MUS 222; music major

**Credits:** 2

**Grade Mode:** Letter

### MUS 225A - Aural Skills II

The development of aural competence in and visual familiarity with the sounds and symbols of the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation.

**Prerequisites & Notes:** Music major; MUS 223A.  
Co-requisite: MUS 225B.

**Credits:** 1

**Grade Mode:** Letter

### MUS 225B - Keyboard Skills II

The development of competence in and familiarity with the piano keyboard, reading and playing in the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in scales, harmonization, accompaniment, prepared and sight reading.

**Prerequisites & Notes:** Music major; MUS 223B.  
Co-requisite: MUS 225A.

**Credits:** 1

**Grade Mode:** Letter

### MUS 230 - Introduction to Electroacoustic Music

Instruction in editing and mixing audio with computer software; analog synthesis with vintage synthesizers; history of electroacoustic music.

**Prerequisites & Notes:** MUS 105

**Credits:** 2

**Grade Mode:** Letter

### MUS 231 - Elementary Composition

Elementary craft of melody, counterpoint, harmony, instrumentation, texture, rhythm, and notation; participation in weekly composition seminars. Repeatable for credit under advisement.

**Credits:** 2

**Grade Mode:** Letter

### MUS 232 - Computer Music Seminar

Instruction in musical programming with CSound or SuperCollider. Topics include sound synthesis, signal processing, and algorithmic composition.

**Prerequisites & Notes:** MUS 105; music major

**Credits:** 2

**Grade Mode:** Letter

### MUS 260 - Remedial Class Piano

Concentration on specific areas of the Keyboard Competency Exam based on individual needs. Repeatable for credit.

**Prerequisites & Notes:** music major; successful completion of a minimum 4 items Keyboard Competency Exam

**Credits:** 1

**Grade Mode:** Letter

### MUS 261 - Intermediate Class Piano

Intermediate piano repertoire, sight-reading skills, technique and accompanying. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** MUS 225A and MUS 225B; music major.

**Credits:** 1

**Grade Mode:** Letter

### MUS 263 - Pedagogy/Lab: Voice

Vocal pedagogy and performance, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1

**Grade Mode:** Letter

### MUS 264L - Pedagogy/lab: Woodwinds I

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1

**Grade Mode:** Letter

### MUS 264M - Pedagogy/lab: Woodwinds II



Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1  
**Grade Mode:** Letter

#### **MUS 264N - Pedagogy/Lab: Brass I**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1  
**Grade Mode:** Letter

#### **MUS 264O - Pedagogy/Lab: Brass II**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1  
**Grade Mode:** Letter

#### **MUS 264P - Pedagogy/Lab: Percussion**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1  
**Grade Mode:** Letter

#### **MUS 265C - Pedagogy/Lab: Strings I**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1  
**Grade Mode:** Letter

#### **MUS 265D - Pedagogy/Lab: Strings II**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

**Credits:** 1  
**Grade Mode:** Letter

#### **MUS 268 - Introduction to Music Education**

This course is designed to introduce philosophical issues and pedagogical practices in the teaching of music in elementary and secondary schools. Through discussion, reading, presentation, and observation, students will explore the career realities of full-time public school music teaching. Students will be introduced to a variety of frameworks for effective instruction, and will

examine content and strategies for organizing and presenting lessons in classroom and rehearsal settings.

**Prerequisites & Notes:** Music Education major; MUS 124 and MUS 125 or equivalent.

**Credits:** 2  
**Grade Mode:** Letter

#### **MUS 269 - Music Teaching Practicum I**

Observation, assisting and/or micro-teaching experience in K-12 music classroom environments. Repeatable for credit.

**Prerequisites & Notes:** instructor permission  
**Credits:** 2  
**Grade Mode:** Letter

#### **MUS 271 - University Choir**

Preparation and performance of major choral works and part-songs. Open to all students having the ability to sing mixed part-songs. Repeatable for credit.

**Prerequisites & Notes:** instructor permission  
**Credits:** 2  
**Grade Mode:** Letter

#### **MUS 272 - Symphonic Band**

Preparation and performance of major band works. Open to all students with band experience. Repeatable for credit.

**Prerequisites & Notes:** instructor permission  
**Credits:** 2  
**Grade Mode:** Letter

#### **MUS 274 - Jazz Ensembles**

Performance and interpretation of contemporary jazz in a large ensemble situation. Repeatable for credit.

**Prerequisites & Notes:** by audition  
**Credits:** 2  
**Grade Mode:** Letter

#### **MUS 275 - Chamber Jazz Ensembles**

Supervised performances in small ensemble groups in jazz idioms stressing repertoire, improvisation, and performance of written arrangements and compositions. One public performance per quarter required. Repeatable for credit.

**Prerequisites & Notes:** By audition  
**Credits:** 2  
**Grade Mode:** Letter

# MUSIC

## **MUS 276 - Piano Accompanying**

Includes private accompanying instruction and weekly performance seminars. Accompanying assignments include duos, chamber ensembles and large performance ensembles. Sight-reading skills, interpretation and accompanying techniques are emphasized. Repeatable for credit.

**Prerequisites & Notes:** MUS 098 or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

## **MUS 278 - Opera Workshop**

Preparation of opera scenes or a major music production to include a public performance each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 1-2

**Grade Mode:** Letter

## **MUS 280 - Collegium Musicum**

Music literature studies from an analytical and performance viewpoint from early to classic music, culminating in a public performance each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 1-2

**Grade Mode:** Letter

## **MUS 281 - Applied Chamber Music**

Rehearsal, coaching, and study of the performance of works for small ensembles, culminating in a concert performance. Open to piano, string, wind, brass and percussion performers. Repeatable for credit.

**Prerequisites & Notes:** By audition.

**Credits:** 0-2

**Grade Mode:** Letter

## **MUS 282 - Guitar Ensemble**

Classical guitar students participate in duos, trios, quartets and pieces written for guitar orchestra.

**Prerequisites & Notes:** MUS 216 or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

## **MUS 283 - Chamber Vocal Ensembles**

Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 2

**Grade Mode:** Letter

## **MUS 284 - Vocal Jazz Ensemble**

Preparation and performance of vocal works by major jazz composers. Open to all University students having the ability to sing in mixed chorus. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 2

**Grade Mode:** Letter

## **MUS 285 - Fundamentals of Musical Theatre**

Practical application for singing, acting and movement to performance-related work from American musical theatre through solo, duet and group performance. Repeatable to a maximum of 6 cr.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **MUS 305 - Musics of the Pacific Rim**

An investigation of specific musical styles and practices of selected Pacific Rim cultures, including Pacific Islands, West Coast Native Americans, South America, Indonesia, China and Japan. Includes class participation in actual musical situations from these areas.

**Prerequisites & Notes:** MUS 205

**Credits:** 3

**Grade Mode:** Letter

## **MUS 311 - Applied Instruction: Organ**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

## **MUS 312 - Applied Instruction: Piano**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 313 - Applied Instruction: Strings**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 313A - Applied Instruction: Violin**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 313B - Applied Instruction: Viola**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 313C - Applied Instruction: Cello**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 313D - Applied Instruction: Double Bass**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 313E - Applied Instruction: Harp**

Repeatable for credit.

**Prerequisites & Notes:** Music major; upper-division exam.

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314 - Winds and Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314A - Applied Instruction: Flute**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314B - Applied Instruction: Oboe**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314C - Applied Instruction: Clarinet**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314D - Applied Instruction: Bassoon**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314E - Applied Instruction: Saxophone**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314F - Applied Instruction: French Horn**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314G - Applied Instruction: Trumpet**

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Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314H - Applied Instruction: Trombone**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314I - Applied Instruction: Euphonium**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314J - Applied Instruction: Tuba**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 314K - Applied Instruction: Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 315 - Applied Instruction: Voice**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 316 - Applied Instruction: Classical Guitar**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 321 - Aural and Keyboard Skills III**

The development of aural competence in and visual familiarity with the sounds and symbols of atonal, freely tonal and highly chromatic tonal systems; completion of extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 225A and MUS 226B; majors only.

**Credits:** 1

**Grade Mode:** S/U

### **MUS 322 - Form and Analysis: Music to 1900**

Formal and stylistic analysis of works from the major historical periods up to 1900.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 323 - Aural and Keyboard Skills III**

The development of aural competence in and visual familiarity with the sounds and symbols of atonal, freely tonal and highly chromatic tonal systems; completion of extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 321

**Credits:** 1

**Grade Mode:** S/U

### **MUS 324A - Modal Counterpoint**

Counterpoint in species and free style. Composition and analysis of pieces in two and three parts.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 324B - Tonal Counterpoint**

Counterpoint in species and free style. Composition and analysis of pieces in two and three parts.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 325 - Aural and Keyboard Skills III**

The development of aural competence in and

visual familiarity with the sounds and symbols of atonal, freely tonal and highly chromatic tonal systems; completion of extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 323

**Credits:** 1

**Grade Mode:** S/U

### **MUS 326 - Orchestration/Arranging**

Orchestration and arranging with special reference to the needs of the instrumental conductor and composer. Repeatable for credit.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 328 - Technology for Music Educators**

Analysis, application, and interaction with current technology used for educational purposes in music. Sequencing, notation, smart board instruction, web design, and mixed media as instructional and research tools.

**Prerequisites & Notes:** MUS 126 and MUS 221 or instructor permission; music education major status.

**Credits:** 2

**Grade Mode:** Letter

### **MUS 331 - Composition**

Intermediate-level projects in melody, counterpoint, harmony, instrumentation, texture, rhythm, and notation; participation in weekly composition seminars. Repeatable for credit under advisement.

**Prerequisites & Notes:** MUS 224; successful completion of upper-division competency exam in composition.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 334 - Jazz Improvisation I**

Study of basic chord changes, scales and patterns with improvisation based on these principles. Analysis of transcribed solos and study of jazz repertoire.

**Prerequisites & Notes:** Permission of instructor

**Credits:** 3

**Grade Mode:** Letter

### **MUS 335 - Jazz Improvisation II**

Study of altered chords, scales and patterns with improvisation based on the principles. Analysis of transcribed solos, study of jazz repertoire and ear training.

**Prerequisites & Notes:** MUS 334 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 336 - Jazz Improvisation III**

Study of bitonal chords, atonality and patterns with improvisation based on these principles. Analysis of transcribed solos, study of jazz repertoire and ear training.

**Prerequisites & Notes:** MUS 335 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 341 - History of Music to 1600**

Main styles, forms, terminology and composers up to 1600. Individual research projects.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B; music major status.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 342 - History of Music 1600-1830**

Main styles, forms, terminology and composers from 1600 to 1830. Individual research projects.

**Prerequisites & Notes:** MUS 341; music major

**Credits:** 3

**Grade Mode:** Letter

### **MUS 343 - History of Music 1830-Present**

Main styles, forms, terminology and composers from 1830-present. Individual research projects.

**Prerequisites & Notes:** MUS 342; music major

**Credits:** 3

**Grade Mode:** Letter

### **MUS 351 - Basic Conducting**

Basic conducting techniques, score reading and interpretive analysis.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B; music major status.

**Credits:** 2

**Grade Mode:** Letter

### **MUS 352 - Instrumental Conducting**

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Instrumental techniques, score reading, interpretive analysis and rehearsal techniques.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B; music major status.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 353 - Choral Conducting**

Choral techniques, score reading, interpretive analysis and rehearsal techniques.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B; music major status.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 354A - Advanced Choral Conducting**

Hands-on practical experience in developing advanced conducting skills. Ensemble conducting experience.

**Prerequisites & Notes:** MUS 352, MUS 353; music major

**Credits:** 3

**Grade Mode:** Letter

### **MUS 354B - Advanced Instrumental Conducting**

Hands-on practical experience in developing advanced conducting skills. Ensemble conducting experience.

**Prerequisites & Notes:** MUS 352, MUS 353; music major

**Credits:** 3

**Grade Mode:** Letter

### **MUS 361 - Music for Elementary Teachers**

For elementary teachers, not music majors. The skills of singing, reading, writing, playing and hearing music; techniques and materials used in the elementary grades.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 362 - General Music Education**

Instructional techniques, resources, curriculum design, and methodology for teaching students in non-performance based general music classes. Emphasis on P-6th Grades.

**Prerequisites & Notes:** MUS 124 and MUS 268; music major status.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 364 - Elementary String Education**

Instruction in elementary-level string instrumental repertoire, teaching strategies, rehearsal techniques, curriculum design and implementation. Peer-teaching and micro-teaching assignments in conjunction with Instrumental Pedagogy Lab classes and public school programs.

**Prerequisites & Notes:** MUS 265A, MUS 265B; music major

**Credits:** 2

**Grade Mode:** Letter

### **MUS 366A - Vocal Diction: English and Italian**

Familiarization and application of the phonetic structures of the major languages of singing and the use of the International Phonetic Alphabet as a basic tool for pronunciation.

**Prerequisites & Notes:** music major; must be taken concurrent with applied voice instruction

**Credits:** 1

**Grade Mode:** Letter

### **MUS 366B - Vocal Diction: German**

Familiarization and application of the phonetic structures of the major languages of singing and the use of the International Phonetic Alphabet as a basic tool for pronunciation.

**Prerequisites & Notes:** music major; must be taken concurrent with applied voice instruction

**Credits:** 1

**Grade Mode:** Letter

### **MUS 366C - Vocal Diction: French**

Familiarization and application of the phonetic structures of the major languages of singing and the use of the International Phonetic Alphabet as a basic tool for pronunciation.

**Prerequisites & Notes:** music major; must be taken concurrent with applied voice instruction

**Credits:** 1

**Grade Mode:** Letter

### **MUS 367 - Fretboard Harmony**

Diatonic harmony applied to the fretboard. Hands-on application of scales and chords as well as basic arranging chord-melody for the guitarist.

**Prerequisites & Notes:** MUS 124, three quarters of MUS 216.

**Credits:** 1

**Grade Mode:** Letter

**MUS 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. (Also offered as ART 398, DNC 398 and THTR 398).

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

**Credits:** 3

**Grade Mode:** Letter

**MUS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**MUS 411 - Applied Instruction: Organ**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 412 - Applied Instruction: Piano**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 413 - Applied Instruction: Strings**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 413A - Applied Instruction: Violin**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 413B - Applied Instruction: Viola**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 413C - Applied Instruction: Cello**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 413D - Applied Instruction: Double Bass**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 413E - Applied Instruction: Harp**

Repeatable for credit.

**Prerequisites & Notes:** Music major; upper-division exam.

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 414 - Applied Instruction: Winds and Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 414A - Applied Instruction: Flute**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

**MUS 414B - Applied Instruction: Oboe**

Repeatable for credit.

## MUSIC

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414C - Applied Instruction: Clarinet**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414D - Applied Instruction: Bassoon**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414E - Applied Instruction: Saxophone**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414F - Applied Instruction: French Horn**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414G - Applied Instruction: Trumpet**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414H - Applied Instruction: Trombone**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414I - Applied Instruction: Euphonium**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414J - Applied Instruction: Tuba**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 414K - Applied Instruction: Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 415 - Applied Instruction: Voice**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 416 - Applied Instruction: Classical Guitar**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 422 - Analytical Techniques: 20th-Century Music**

Formal and stylistic analysis of representative 20th-century works.

**Prerequisites & Notes:** MUS 224; MUS 225A and MUS 225B.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 431 - Composition**

Advanced projects in melody, counterpoint, harmony, instrumentation, texture, rhythm, and notation; participation in weekly composition seminars. Repeatable for credit under advisement.

**Prerequisites & Notes:** minimum 6 credits MUS 331



**Credits:** 3  
**Grade Mode:** Letter

### **MUS 432 - Electroacoustic Music**

Instruction in the use of synthesizers, samplers, and computer software for use in electroacoustic music. Group instruction and studio time. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** Two from: MUS 230, MUS 232, MUS 328  
**Credits:** 2  
**Grade Mode:** Letter

### **MUS 434 - Jazz Arranging I**

Writing and arranging for small jazz ensembles. Analysis of small jazz ensemble styles.

**Prerequisites & Notes:** MUS 224 or MUS 334.  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 435 - Jazz Arranging II**

Writing and arranging for a variety of instrumental combinations. Analysis of jazz ensemble styles.

**Prerequisites & Notes:** MUS 434  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 436 - Jazz Arranging III**

Writing and arranging for large jazz ensemble. Analysis of large jazz ensemble styles.

**Prerequisites & Notes:** MUS 435  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 441 - Notation**

Reading and interpreting early, contemporary or other extant systems.

**Prerequisites & Notes:** MUS 224, MUS 341, MUS 343; permission of instructor.  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 442 - Seminar in Music History**

The student, in consultation with the instructor, selects one or more given musical developments for individual research. Ongoing results of this research are shared with other members of the seminar. Focus of varies from quarter to quarter. Repeatable for credit.

**Prerequisites & Notes:** MUS 342, MUS 343;

music major  
**Credits:** 4  
**Grade Mode:** Letter

### **MUS 443A - History of Musical Genres: Choral Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 443B - History of Musical Genres: Solo Song**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 443C - History of Musical Genres: Opera**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 443D - History of Musical Genres: Keyboard Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 443E - History of Musical Genres: Chamber Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3  
**Grade Mode:** Letter

### **MUS 443F - History of Musical Genres: Symphonic Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3  
**Grade Mode:** Letter

# MUSIC

## **MUS 443G - History of Musical Genres: Concerto**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3

**Grade Mode:** Letter

## **MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3

**Grade Mode:** Letter

## **MUS 443I - History of Musical Genres: Opera I**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
**Credits:** 3

**Grade Mode:** Letter

## **MUS 443J - History of Musical Genres: Opera II**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major.  
**Credits:** 3

**Grade Mode:** Letter

## **MUS 444 - Shakespeare and Music**

History and literature of musicians' responses to works of Shakespeare - music for stage and film, orchestral music, opera and song settings.

**Prerequisites & Notes:** MUS 343

**Credits:** 3

**Grade Mode:** Letter

## **MUS 451 - Conducting Practicum**

Advanced conducting techniques to include direction of student ensembles under faculty supervision.

**Prerequisites & Notes:** MUS 351; MUS 352 or MUS 353

**Credits:** 1-3

**Grade Mode:** Letter

## **MUS 455 - Band Music Workshop**

Offered summers only. Repeatable for credit.

**Credits:** 2

**Grade Mode:** Letter

## **MUS 456 - String Music Workshop**

Offered summers only. Repeatable for credit.

**Credits:** 2

**Grade Mode:** Letter

## **MUS 460 - Literacy and Music**

This course is designed to introduce processes associated with the development of comprehensive literacy (reading, writing, speaking, and listening) within the P-12 music classroom. The course considers and includes two approaches to the pursuit of teaching toward literacy: 1) the cross-over, combination, and correlation between literacy standards and music standards, and 2) the onset of guiding students toward literacy in the academic area of music, i.e., the symbolic systems and "codes" related to musical ideas, meaning, and communication.

**Prerequisites & Notes:** Admitted teacher candidate in Woodring College of Education or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

## **MUS 461 - Advanced Techniques in General Music Education**

Advanced teaching techniques for instructing secondary level students in non-performance based classrooms. In depth curriculum, methods, assessment strategies, long-term planning. Laboratory experience is included.

**Prerequisites & Notes:** Admission to Woodring College of Education and MUS 362

**Credits:** 3

**Grade Mode:** Letter

## **MUS 463 - Secondary Choral Music Education**

Instruction in middle and high school choral repertoire, teaching strategies, rehearsal techniques, classroom management, curriculum design. Peer-teaching and micro-teaching assignments in public schools.

**Prerequisites & Notes:** MUS 268 and MUS 354; Music Education major.

**Credits:** 3

**Grade Mode:** Letter

**MUS 465 - Secondary Instrumental Music Education**

Instruction in middle and high school instrumental rehearsal techniques, repertoire selection, classroom management systems, short and long term planning, and curriculum design. Peer-teaching and on-site observation within public school secondary instrumental classes.

**Prerequisites & Notes:** MUS 264L; MUS 264M; MUS 264N; MUS 264O; MUS 264P; MUS 265C; MUS 265D; MUS 268; MUS 352.

**Credits:** 3

**Grade Mode:** Letter

**MUS 466 - Applied Music Pedagogy**

A study of the basic concepts involved in instrument or voice pedagogy through a survey of the most important modern teaching methods. Repeatable for credit.

**Prerequisites & Notes:** upper-division applied instruction; music major

**Credits:** 1-3

**Grade Mode:** Letter

**MUS 466A - Applied Music Pedagogy: Piano**

A study of the basic concepts involved in instrument or voice pedagogy through a survey of the most important modern teaching methods. Repeatable for credit.

**Prerequisites & Notes:** upper-division applied instruction; music major

**Credits:** 2

**Grade Mode:** Letter

**MUS 466B - Applied Music Pedagogy: Voice**

A study of the basic concepts involved in instrument or voice pedagogy through a survey of the most important modern teaching methods. Repeatable for credit.

**Prerequisites & Notes:** upper-division applied instruction; music major

**Credits:** 2

**Grade Mode:** Letter

**MUS 467 - Applied Music Literature**

A stylistic and historical survey of literature for instruments or voice. Repeatable for credit.

**Prerequisites & Notes:** music major

**Credits:** 1-3

**Grade Mode:** Letter

**MUS 467A - Applied Music Literature**

A stylistic and historical survey of literature for instruments or voice. Repeatable for credit.

**Prerequisites & Notes:** music major

**Credits:** 3

**Grade Mode:** Letter

**MUS 468A - Guitar History and Repertory**

A survey of guitar literature and history from Renaissance to present.

**Prerequisites & Notes:** MUS 367; corequisite: MUS 216.

**Credits:** 2

**Grade Mode:** Letter

**MUS 468B - Guitar History and Repertory**

A survey of guitar literature and history from Renaissance to present.

**Prerequisites & Notes:** MUS 367; corequisite: MUS 216.

**Credits:** 2

**Grade Mode:** Letter

**MUS 469 - Music Teaching Practicum II**

Observation, assisting and intense field experience in music classroom environments. Repeatable for credit.

**Prerequisites & Notes:** admission to Woodring College of Education

**Credits:** 2

**Grade Mode:** Letter

**MUS 471 - Concert Choir**

Selected group experience, vocal ability, reading skill, musicianship and interest in serious choral music considered for membership. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 2

**Grade Mode:** Letter

**MUS 472 - Wind Symphony**

Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 2

**Grade Mode:** Letter

**MUS 473 - University Symphony Orchestra**

Repeatable for credit.

**Prerequisites & Notes:** by audition

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**Credits:** 2

**Grade Mode:** Letter

## **MUS 474 - Jazz Ensembles**

Advanced performance and interpretation of contemporary jazz in an ensemble situation; recent developments in the idiom; performance of student compositions and arrangements. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 2

**Grade Mode:** Letter

## **MUS 475 - Chamber Jazz Ensemble**

Supervised small ensemble playing in jazz idioms stressing repertoire, improvisation and performance of written arrangements and compositions. One public performance per quarter required. Repeatable for credit.

**Prerequisites & Notes:** by audition; MUS 334, MUS 335 or MUS 336 strongly recommended.

**Credits:** 2

**Grade Mode:** Letter

## **MUS 476 - Advanced Piano Accompanying**

Advanced instruction in accompanying skills. Repeatable for credit.

**Prerequisites & Notes:** completion of major performance ensemble requirement

**Credits:** 2

**Grade Mode:** Letter

## **MUS 478 - Advanced Opera Production**

Preparation of opera scenes or a major musical production to include a public performance each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 1-2

**Grade Mode:** Letter

## **MUS 480 - Advanced Collegium Musicum**

Music literature studies from an analytical and performance viewpoint from early to classic music, culminating in a public performance each quarter. Repeatable for credit.

**Credits:** 1-2

**Grade Mode:** Letter

## **MUS 481 - Advanced Applied Chamber Music**

Open to piano, string, wind, brass and percussion performers. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 2

**Grade Mode:** Letter

## **MUS 483 - Advanced Chamber Vocal Ensembles**

Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 2

**Grade Mode:** Letter

## **MUS 484 - Advanced Vocal Jazz Ensemble**

Preparation and performance of vocal works by major jazz composers. Open to all University students having the ability to sing in mixed chorus. Repeatable for credit.

**Prerequisites & Notes:** by audition; MUS 101, MUS 102, MUS 103 recommended

**Credits:** 2

**Grade Mode:** Letter

## **MUS 485 - New Music Ensemble**

Performance of 20th-century music literature. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 1-2

**Grade Mode:** Letter

## **MUS 486 - Chamber Orchestra**

Rehearsal and performance of chamber orchestra literature. Repeatable for credit.

**Credits:** 1

**Grade Mode:** Letter

## **MUS 490 - Senior Thesis**

S/U grading.

**Prerequisites & Notes:** Admission to music history and literature program or music composition program.

**Credits:** 3

**Grade Mode:** S/U

## **MUS 499 - Senior Recital**

A full-length, public recital approved by the student's Recital Committee. S/U grading.

**Credits:** 3

**Grade Mode:** S/U

## **MUS 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MUS 501 - Instrumental Conducting and Rehearsal Techniques**

Advanced work in conducting band and orchestra music; baton technique, interpretation, score preparation and rehearsal techniques. Repeatable for credit.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 502 - Choral Conducting and Literature**

Successful techniques in developing and conducting choral groups, score analysis of outstanding choral works; laboratory experience in conducting. Repeatable for credit.

**Credits:** 3

**Grade Mode:** Letter

### **MUS 503 - Introduction to Graduate Study of Music**

Sources and availability of music, recordings and literature about music throughout its entire history. Techniques of research bibliography and formal writing about music. Students are expected to prepare and defend a formal written project.

**Credits:** 4

**Grade Mode:** Letter

### **MUS 511 - Individual Instruction: Advanced Organ**

In addition to regularly scheduled private lessons, students are expected to participate in organ class performances and to hold a church organist position throughout their residence for the degree. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 3-4

**Grade Mode:** Letter

### **MUS 512 - Individual Instruction: Advanced Piano**

In addition to regularly scheduled private lessons, a public performance is expected each quarter.

Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 1-4

**Grade Mode:** Letter

### **MUS 513 - Individual Instruction: Advanced Strings**

In addition to regularly scheduled private lessons, a public performance of a significant work is expected. The performance will be approved and evaluated by a faculty committee. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 3-4

**Grade Mode:** Letter

### **MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion**

In addition to regularly scheduled private lessons, a public performance of a significant work is expected. The performance will be approved and evaluated by a faculty committee. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 3-4

**Grade Mode:** Letter

### **MUS 515 - Individual Instruction: Advanced Voice**

In addition to regularly scheduled private lessons, a public performance is expected each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

**Credits:** 0-4

**Grade Mode:** Letter

### **MUS 518 - Individual Instruction: Applied Jazz**

Individual instruction in jazz performance styles and techniques. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 3-4

**Grade Mode:** Letter

### **MUS 519 - Individual Instruction - Advanced Applied Conducting**

Individual instruction in conducting techniques and repertoire.

**Prerequisites & Notes:** admission to MMus

# MUSIC

degree program; MUS 501 or MUS 502

**Credits:** 1-3

**Grade Mode:** Letter

## **MUS 525 - Brass and Percussion Techniques and Materials**

Pedagogical and fundamental performance problems for all brass and percussion instruments; appropriate literature for beginning through advanced levels; performance problems encountered within the school band and orchestra settings.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 531 - Arranging**

Practical techniques in arranging and composing for large and small ensembles. Summer only.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 532 - Analytical Techniques: 20th-Century Musical Practices**

Analysis of works by various composers who have generated the major trends of 20th-century music.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 533 - Analytical Techniques: 19th-Century Musical Styles and Practices**

Analysis of works by various composers who generated the major trends of 19th-century music.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 534 - Composition**

Composition, rehearsal and public performance of original works. Repeatable for credit.

**Prerequisites & Notes:** MUS 431

**Credits:** 4

**Grade Mode:** Letter

## **MUS 538 - Notation**

Reading, interpreting and transcribing music from early notational systems.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 539 - History of Musical Genres**

An in-depth look at a particular musical genre. Sample topics: opera, solo song, choral music, the concerto, symphonic music. Course may be repeated once for credit, with a different topic.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 541 - History/Analysis: Music to 1600**

An in-depth study of a particular segment of music from the period with historical perspective, analysis of representative works, and bibliography and research techniques appropriate to the subject. Repeatable once for credit.

**Credits:** 4

**Grade Mode:** Letter

## **MUS 542 - History/Analysis: Music from 1600-1830**

An in-depth study of a particular segment of music from the period with historical perspective, analysis of representative works, and bibliography and research techniques appropriate to the subject. Repeatable once for credit.

**Credits:** 4

**Grade Mode:** Letter

## **MUS 543 - History/Analysis: Music from 1830-Present**

An in-depth study of a particular segment of music from the period with historical perspective, analysis of representative works, and bibliography and research techniques appropriate to the subject. Repeatable once for credit.

**Credits:** 4

**Grade Mode:** Letter

## **MUS 550 - Seminar in the History of Music**

Detailed study of a particular period or phase of the history of music designed to give students a first-hand acquaintance with one special area of musical literature and with musicological method.

**Credits:** 3

**Grade Mode:** Letter

## **MUS 555 - Advanced Band Music Workshop**

Course not applicable to MMus degree. Offered summers only. Repeatable for credit.

**Credits:** 2

**Grade Mode:** Letter

**MUS 556 - Advanced String Orchestra Music Workshop**

Course not applicable to MMus degree. Offered summers only. Repeatable for credit.

**Credits:** 2

**Grade Mode:** Letter

**MUS 571 - Concert Choir**

Rehearsal and public performance of representative choral works. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

**MUS 572 - Wind Symphony**

Rehearsal and public performance of works for wind ensemble. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

**MUS 573 - University Symphony Orchestra**

Rehearsal and public performance of works for symphony orchestra. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

**MUS 574 - Jazz Ensembles**

Advanced performance and interpretation of contemporary jazz in an ensemble situation; recent developments in the idiom; performance of student compositions and arrangements. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

**MUS 575 - Chamber Jazz Ensembles**

Supervised small ensemble playing in jazz idioms stressing repertoire, improvisation and performance of written arrangements and compositions. One public performance per quarter required. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

**MUS 576 - Accompanying**

Graduate-level instruction in accompanying skills. Pianists will accompany singers and instrumentalists under the supervision and regular coaching of the instructor. Repeatable for credit.

**Credits:** 0-3

**Grade Mode:** Letter

**MUS 578 - Opera Production**

Preparation of opera scenes or a major musical production to include a public performance each quarter. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 1-2

**Grade Mode:** Letter

**MUS 580 - Advanced Collegium Musicum**

Editing, coaching and performance practice of early music (before 1800). Involves preparation and participation in public performance. (Only 6 credits applicable towards MMus degree). Repeatable up to 6 credits.

**Credits:** 2

**Grade Mode:** Letter

**MUS 581 - Applied Chamber Music**

Rehearsal and public performance of representative works of chamber music. Open to piano, string, wind, brass and percussion performers. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

**MUS 583 - Chamber Vocal Ensembles**

Rehearsal and public performance of chamber vocal works. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

**MUS 585 - New Music Ensemble**

Rehearsal and performance of 20th-century music

## MUSIC

literature. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 2

**Grade Mode:** Letter

### **MUS 586 - Chamber Orchestra**

Rehearsal and performance of chamber orchestra literature. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** admission to MMus degree program

**Credits:** 1

**Grade Mode:** Letter

### **MUS 690 - Thesis**

Students in the composition concentration of the MMus degree program may meet the thesis requirement` by submitting a major original composition; students in the performance concentration may meet the thesis requirement by presenting a full-length public recital; students in the music education concentration selecting the conducting practicum for their thesis requirement will carry out a practical and/or creative conducting project, field study or investigation, or rehearsal/conducting series culminating in a public performance. Repeatable to a maximum of 6 cr.

**Credits:** 1-6

**Grade Mode:** Letter



# Theatre and Dance

## Introduction

### Department Mission Statement

The faculty and staff of the Theatre and Dance department are committed to a liberal arts approach to performing arts education while maintaining a balance of both academic and practical approaches to the arts of theatre and dance. We believe strongly in the value of academic rigor, which in turn supports and maintains productions and projects of the highest standards. We promote a global, diverse and collaborative view of performing arts education, and strive to train artistic leaders in their chosen disciplines who will further contribute to the craft.

### Program Description: Theatre

Theatre offers a Bachelor of Arts as well as a theatre minor and an endorsement in Theatre Education in conjunction with Woodring College of Education. Each theatre arts major is grounded in generalist fundamentals and chooses one or more areas of specialization (acting, dramatic writing, educational theatre, technical theatre, design and/or management). In addition to preparing majors for careers in academic or professional theatre, the lessons acquired through this course of study are readily transferable to careers in teaching, law, business, social services and other areas where inter- and intrapersonal skills are required.

The following areas of knowledge are central to the undergraduate degree in theatre arts:

- Major works of dramatic literature representative of diverse cultures
- The history of theatrical production - its styles, conventions and social context - from the ancients to the present day
- The means by which theatrical production is realized
- The role of theatre in shaping our past, present and future

In addition, students completing a degree in theatre arts will possess the ability to:

- Analyze and interpret dramatic literature and performance from the standpoint of designer, performer, director, playwright or critic
- Safely and efficiently use the tools and equipment basic to theatrical production

- Function effectively as a member of a collaborative team in the preparation and realization of a public performance

Assessment of these competencies is accomplished through individual course performance as well as a final evaluation of each student via a senior project, which may include the presentation of a written thesis, performance project or portfolio. Projects vary by student specialization and interests.

### Program Description: Dance

Dance offers a Bachelor of Arts and a Bachelor of Fine Arts as well as a Dance Minor and a Teaching Endorsement in conjunction with Woodring College of Education.

Entry into the BA/BFA is by audition. Completion of the program is dependent upon successful progress through the curriculum. The BA is a broadly-based degree, with a liberal arts orientation, and is designed for students with a general rather than career interest in performing or choreographing. BA candidates will focus on pedagogical and historic aspects of dance. The BFA degree is a highly selective program which trains exceptionally committed, disciplined, and talented students. The BFA degree also requires recommendation of faculty members.

The Dance Program expects achievement in the following competencies by graduating majors in both the BA and BFA. Our students will:

- Develop proficiency in modern dance technique
- Develop competency in ballet technique
- Become familiar with the history of dance and enhance writing skills by using this knowledge
- Gain expanded diversity awareness through the cultural dimensions of dance
- Understand alignment and anatomy as they relate to dancers
- Explore their choreographic potential in traditional and/or experimental approaches
- Learn the basic skills and operations of technical theatre related to dance production
- Have multiple performing opportunities in different venues

Assessment of these competencies is accomplished through individual course performance, completion of degree requirements, and in part by successful audition and casting in faculty directed events. BFA candidates will be expected to participate in a culminating Capstone course and presentation as choreographers and as featured dancers.

# THEATRE AND DANCE

## Faculty

**BETH LEONARD** (2013) Chair and Professor. B.S. University of Kansas; M.A. University of Central Missouri; MFA University of Missouri; ABD University of Kansas.

**RICH BROWN** (2006) Professor. BA, MA, Central Missouri State University; PhD, University of Oregon.

**DEBORAH CURRIER** (2003) Associate Professor. BA, California State University; MA, PhD, University of Oregon.

**NOLAN DENNETT** (1989) Professor. BA, Brigham Young University; MA, Western Washington University.

**DIPU GUPTA** (2013) Assistant Professor. BA, University of Pennsylvania; MARCH, University of Virginia; MFA University of California, L.A.

**MONICA HART** (2013) Assistant Professor. BA University of Montana; MFA Wayne State.

**PENNY HUTCHINSON** (2005) Associate Professor. BA, Vermont College; MFA, Mills College.

**MARK KUNTZ** (1997) Professor. BA, University of Washington; MFA, University of Oregon.

**JAMES E. LORTZ** (1989) Professor. BFA, MFA, University of Montana.

**DARREN W. MCCROOM** (2015) Assistant Professor. BFA, Rockford College; MFA, University of Illinois.

**EVAN MUELLER** (2015) Assistant Professor. BA, Duke University; MFA, Rutgers University.

## Instructors

# Bachelor of Arts

## Dance, BA

Theatre and Dance Department, College of Fine and Performing Arts

**77-86 credits**

## Introduction

In the course of their Dance studies, students will learn to understand and evaluate contemporary thinking about dance and related arts, while nurturing a physical and intellectual understanding of the language of movement that is reflective of and insightful toward the human condition.

## Why Consider a Dance Major?

The BA is a broadly based degree, with a liberal arts orientation, and is designed for students with a general interest in dance and its applications. BA candidates will focus on pedagogical and historic aspects of Dance Art as well as on the performance/generative components. They will be encouraged to demonstrate proficiency in pedagogy. Dance majors develop multiple skills that are essential in all fields, including self-discipline, collaboration, patience and problem-solving.

**CHER CARNELL** (1996) Director of Dance and Senior Instructor, BA University of Wisconsin; MEd, Western Washington University.

**MIKE BAJUK** (2004) Senior Instructor. BM, Western Washington University; MS, University of Indiana-Purdue.

**KAMARIE CHAPMAN** (2010) Senior Instructor, BA Western Washington University; MFA, University of New Mexico.

**SUSAN HAINES** (2005) Senior Instructor. BA, Radford University; MFA, University of North Carolina-Greensboro.

**PAM KUNTZ** (1999) Senior Instructor. BFA, University of Montana; MFA, Boston Conservatory.

**RICHARD MERRILL** (2005) Senior Instructor.

## Affiliated Teaching Staff

**RACHEL ANDERSON** (2000) BA, Western Washington University; MFA, University of Montana.

## Application Requirements: Theatre

In order to declare a theatre major, contact the Theatre Office at Performing Arts 395 to attain a decaration of major form.

## Application Requirements: Dance

A student may declare a major in Dance after placement in Modern Dance I and with the permission of the departmental advisor.

## Contact Information

**Department Chair**  
Beth Leonard

**Major Information:**  
Director of Dance

Performing Arts 395B  
360-650-3880  
Beth.Leonard@wwu.edu

Cher Carnell  
Commissary 113C  
360-650-3893  
Cher.Carnell@wwu.edu

#### Sample Careers

Dance Educator | Arts Management | Dance Teacher | Community Dance Worker | Choreographer

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)  
<http://www.artjob.org/>

### How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

- 15 college credits
- Modern placement of Level One or above.

**Advising tips:** Students should seek early departmental advising.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- DNC 121 - Contemporary Dance I - Level 1
- DNC 122 - Contemporary Dance I - Level 2
- DNC 123 - Contemporary Dance I - Level 3
- DNC 221 - Contemporary Dance II - Level 1
- DNC 222 - Contemporary Dance II - Level 2
- DNC 223 - Contemporary Dance II - Level 3
- DNC 231 - Introduction to Dance in Western Cultures
- DNC 232 - Movement and Culture
- DNC 242 - Choreography I
- DNC 257 - Performance
- DNC 321 - Contemporary Dance III - Level 1
- DNC 322 - Contemporary Dance III - Level 2
- DNC 323 - Contemporary Dance III - Level 3
- DNC 339 - Functional Alignment
- DNC 340 - Anatomy for Dancers
- DNC 342 - Choreography II
- DNC 357 - Repertory
- DNC 431 - History of Western Dance Since 1450
- THTR 255 - Theatre Production: Technology
- 12-18 credits from:
  - DNC 211 - Ballet II - Level 1
  - DNC 212 - Ballet II - Level 2
  - DNC 213 - Ballet II - Level 3
  - DNC 311 - Ballet III - Level 1
  - DNC 312 - Ballet III - Level 2
  - DNC 313 - Ballet III - Level 3
- One course from:
  - DNC 433 - Creative Movement for Educators With Lab
  - DNC 434 - Dance Arts in Education
- One course from:
  - THTR 210 - Foundations in Design Communication
  - THTR 212 - Introduction to Stage Technology
- One course from:

# THEATRE AND DANCE

THTR 210 - Foundations in Design Communication  
THTR 212 - Introduction to Stage Technology  
THTR 216 - Introduction to Costuming  
THTR 313 - Beginning Lighting Design  
THTR 314 - Stage Management

## Theatre, BA

Department of Theatre and Dance, College of Fine and Performing Arts

### 58-67 Credits

### Introduction

The Department of Theatre and Dance strives to give students a well-rounded education. In addition to a core of practical theatre courses, students focus on one or more concentrations to hone their skills within specific areas of interest. Declared students reinforce their major studies through hands-on application of their skills. With an abundance of student programs and seasonal production opportunities, theatre students rarely find themselves without a project to do. The central goal of the degree is to provide students with a comprehensive understanding of theatre, including knowledge of its history, the means by which theatre is realized, and the role of theatre in forming the past, present and future of society.

### Why Consider a Theatre Major?

The major is grounded in fundamentals and a student chooses one or more areas of specialization (Acting, Dramatic Writing, Educational Theatre, Technical Theatre, Musical Theatre, Stage Management, Costume Design, Lighting Design and Scenic Design). In addition to preparing majors for careers in the academic or professional theatre, the lessons acquired through this course of study are readily transferable to careers in teaching, law, business and other areas where interpersonal and self-reliant skills are required.

Contact Information		
<b>Department Chair</b>	<b>Administrative Services Manager</b>	<b>Program Coordinator</b>
Beth Leonard	Erin Emry	Ashley VanCurler
Performing Arts 395	Performing Arts 385	Performing Arts 395
360-650-3880	360-650-7310	360-650-3876
Beth.Leonard@wwu.edu	Erin.Emry@wwu.edu	Ashley.VanCurler@wwu.edu

**Sample Careers**  
Actor/Actress | Graphic Designer | House Management | Master Electrician | Costume Designer | Advertising/Marketing Manager | Talent Scout | Lighting Designer | Stage Manager | Events Coordinator | Props Designer | Technical Director | Set Designer | Booking Agent | Marketing Communications Specialist

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Go to the Department of Theatre and Dance Office (Performing Arts 395) to declare the major. At the time of your declaration you will be assigned a faculty advisor who will help you navigate through the Theatre major.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

- THTR 101 - Introduction to the Art of the Theatre
- THTR 210 - Foundations in Design Communication
- THTR 212 - Introduction to Stage Technology

- THTR 228 - Understanding Plays
- THTR 255 - Theatre Production: Technology
- THTR 370 - Play Direction
- THTR 380 - Theatre History I
- THTR 381 - Theatre History II
- THTR 382 - Theatre History III
- THTR 384 - Introduction to Dramatic Writing
- THTR 496 - Senior Capstone Thesis
- One course from:
  - THTR 160 - Introduction to Acting
  - THTR 260 - Acting Studio I: Theory
- Two topics courses selected from:
  - THTR 428 - Topics in Theatrical Performance

Select one of the following Concentration areas:

### Acting

(Acceptance in this concentration is contingent upon successful 300 level audition)

- THTR 260 - Acting Studio I: Theory
- THTR 261 - Voice Studio I: Voice and Breath
- THTR 264 - Movement Studio I: Grotowski
- THTR 360 - Acting Studio II: Interpretation of a Role
- THTR 361 - Voice Studio II: Speech and Language
- THTR 364 - Movement Studio II: Suzuki/Viewpoints

### Dramatic Writing

- Three different topic courses selected from:
  - THTR 485 - Dramatic Writing Workshop
- Plus 7 credits under advisement

### Directing

- THTR 314 - Stage Management
- THTR 371 - Directing Projects
- THTR 470 - Play Direction II
- THTR 471 - Advanced Directing Projects
- Plus 7 credits under advisement

### Educational Theatre

- THTR 350 - Theatre for Youth
- THTR 450 - Theatre for Youth II
- THTR 452 - Secondary Theatre Techniques
- One course from the following group:
  - THTR 351 - Creative Pedagogy
  - THTR 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - ART 398 - Integrated Arts for Elementary Educators
- Plus 6 credits under advisement

### Musical Theatre

- THTR 260 - Acting Studio I: Theory

## THEATRE AND DANCE

- THTR 261 - Voice Studio I: Voice and Breath
- THTR 366 - Musical Theatre
- DNC 111 - Ballet I - Level 1
- DNC 203 - Jazz Dance
- MUS 101 - Fundamentals of Music
- MUS 166A - Introduction to Voice Studies A
- MUS 271 - University Choir

### Technical Theatre

- THTR 313 - Beginning Lighting Design
- THTR 314 - Stage Management
- THTR 320 - Digital Drafting and Design Modeling
- THTR 355 - Intermediate Theatre Technology
- THTR 455 - Advanced Production and Design

### Stage Management

- THTR 311 - Beginning Scene Design
- THTR 313 - Beginning Lighting Design
- THTR 314 - Stage Management
- THTR 320 - Digital Drafting and Design Modeling
- THTR 355 - Intermediate Theatre Technology
- THTR 455 - Advanced Production and Design

### Costume Design

- THTR 216 - Introduction to Costuming
- THTR 218 - Costume Figure Drawing
- THTR 309 - Period Styles
- THTR 316 - Beginning Costume Design
- THTR 355 - Intermediate Theatre Technology
- THTR 383 - Costume History
- THTR 416 - Advanced Costume Design

### Lighting Design

- THTR 309 - Period Styles
- THTR 311 - Beginning Scene Design
- THTR 312 - Digital Drawing for Theatre Design
- THTR 313 - Beginning Lighting Design
- THTR 355 - Intermediate Theatre Technology
- THTR 413 - Advanced Lighting Design
- Plus 3 credits under advisement

### Scenic Design

- THTR 309 - Period Styles
- THTR 311 - Beginning Scene Design
- THTR 312 - Digital Drawing for Theatre Design
- THTR 313 - Beginning Lighting Design
- THTR 321 - 3D Digital Modeling and Design
- THTR 355 - Intermediate Theatre Technology
- THTR 411 - Advanced Scenic Design

# Bachelor of Fine Arts

## Dance, BFA

Department of Theatre and Dance, College of Fine and Performing Arts

**94-103 credits**

### Introduction

In the course of their Dance studies, students will learn to understand and evaluate contemporary thinking about dance and related arts, while nurturing a physical and intellectual understanding of the language of movement that is reflective of and insightful toward the human condition.

### Why Consider a Dance Major with a Bachelor of Fine Arts Degree?

The BFA Program in Dance is a professionally oriented degree, which presumes that students are seriously interested in the process of performing or choreographing and wish to make it their career. The BFA degree is a highly selective program which trains exceptionally committed, disciplined, and talented students to the level at which they might gain entry to a leading graduate, conservatory, or MFA Program, or directly enter one of the areas of the dancing profession.

Contact Information	
<b>Department Chair</b> Beth Leonard Performing Arts 395B 360-650-3880 Beth.Leonard@wwu.edu	<b>Director of Dance</b> Cher Carnell Commissary 113C 360-650-3893 Cher.Carnell@wwu.edu
Sample Careers	
Professional Dancer   Choreographer   Dance Therapist   Arts Management   Dance Educator   Dance Notation   Professor	
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a> <a href="http://www.artjob.org/">http://www.artjob.org/</a>	

### How to Declare (Admission and Declaration Process):

**Admissions:** The BFA is by invitation only.

Faculty vote to select students recognized as qualified for the BFA.

**Application deadlines:** Interested students may apply in spring of either their sophomore or junior year.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- DNC 121 - Contemporary Dance I - Level 1
- DNC 122 - Contemporary Dance I - Level 2
- DNC 123 - Contemporary Dance I - Level 3
- DNC 221 - Contemporary Dance II - Level 1
- DNC 222 - Contemporary Dance II - Level 2
- DNC 223 - Contemporary Dance II - Level 3
- DNC 231 - Introduction to Dance in Western Cultures
- DNC 232 - Movement and Culture

## THEATRE AND DANCE

- DNC 242 - Choreography I
- DNC 257 - Performance
- DNC 321 - Contemporary Dance III - Level 1
- DNC 322 - Contemporary Dance III - Level 2
- DNC 323 - Contemporary Dance III - Level 3
- DNC 339 - Functional Alignment
- DNC 340 - Anatomy for Dancers
- DNC 342 - Choreography II
- DNC 345 - Fundamentals of Contemporary Partnering
- DNC 357 - Repertory
- DNC 403 - Senior Seminar
- DNC 404 - Capstone Preparation
- DNC 421 - Contemporary Dance IV - Level 1
- DNC 422 - Contemporary Dance IV - Level 2
- DNC 423 - Contemporary Dance IV - Level 3
- DNC 431 - History of Western Dance Since 1450
- DNC 442 - Advanced Choreography
- THTR 255 - Theatre Production: Technology
- 12-18 credits from:
  - DNC 211 - Ballet II - Level 1
  - DNC 212 - Ballet II - Level 2
  - DNC 213 - Ballet II - Level 3
  - DNC 311 - Ballet III - Level 1
  - DNC 312 - Ballet III - Level 2
  - DNC 313 - Ballet III - Level 3
- One course from:
  - DNC 433 - Creative Movement for Educators With Lab
  - DNC 434 - Dance Arts in Education
- One course from:
  - THTR 210 - Foundations in Design Communication
  - THTR 212 - Introduction to Stage Technology
- One course from:
  - THTR 210 - Foundations in Design Communication
  - THTR 212 - Introduction to Stage Technology
  - THTR 216 - Introduction to Costuming
  - THTR 313- Beginning Lighting Design
  - THTR 314 - Stage Management

## Additional Endorsement

### Dance Additional Teaching Endorsement

Department of Theatre and Dance, College of Fine and Performing Arts

**23 credits**

#### Introduction

Students completing a teacher certification program and endorsable major in a subject other than Dance may qualify for an additional endorsement in Dance by completing requirements listed below. See the Woodring College of Education section of this catalog for more information on teacher certification programs and approved majors.

#### Contact Information

##### Department Chair

Beth Leonard  
Performing Arts 395B

##### Teaching Endorsement Information:

Cher Carnell  
Commissary 113C



360-650-3880  
Beth.Leonard@wwu.edu

360-650-3893  
Cher.Carnell@wwu.edu

Sample Careers

Dance Educator

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

Dance courses required for a state teaching endorsement and courses in the secondary education professional program must be completed with a grade of C (2.0) or better.

## Requirements

- Choose two courses from:
    - DNC 121 - Contemporary Dance I - Level 1
    - DNC 122 - Contemporary Dance I - Level 2
    - DNC 123 - Contemporary Dance I - Level 3
    - DNC 221 - Contemporary Dance II - Level 1
    - DNC 222 - Contemporary Dance II - Level 2
    - DNC 223 - Contemporary Dance II - Level 3
  - DNC 231 - Introduction to Dance in Western Cultures
  - DNC 232 - Movement and Culture
  - DNC 339 - Functional Alignment
  - DNC 433 - Creative Movement for Educators With Lab
  - THTR 212 - Introduction to Stage Technology
- Recommended: Students are strongly encouraged to take DNC 434

## Theatre Arts P-12, Additional Teaching Endorsement

Department of Theatre and Dance, College of Fine and Performing Arts

### 31 Credits

### Introduction

Completion of the following courses leads to an additional endorsement in theatre arts when accompanied by a first endorsement in another content area. See the Theatre Arts Education advisor for additional suggested reading resources. To receive a recommendation for state of Washington teacher certification, students must complete a professional preparation program. See the Elementary Education and Secondary Education sections of this catalog for program admission, completion, and teacher certification requirements.

#### Contact Information

##### Department Chair

Beth Leonard  
Performing Arts 395B  
360-650-3880  
Beth.Leonard@wwu.edu

##### Teaching Endorsement Information:

Deborah Currier  
Performing Arts 387  
360-650-2387  
Deb.Currier@wwu.edu

Sample Careers

Theatre Educator

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

Course required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

# THEATRE AND DANCE

## Requirements

- THTR 101 - Introduction to the Art of the Theatre
- THTR 160 - Introduction to Acting
- THTR 212 - Introduction to Stage Technology
- THTR 228 - Understanding Plays
- THTR 255 - Theatre Production: Technology
- THTR 314 - Stage Management
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- THTR 370 - Play Direction
- THTR 452 - Secondary Theatre Techniques

## Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching

- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Minor

### Dance Minor

Department of Theatre and Dance, College of Fine and Performing Arts

**32-34 credits**

#### Introduction

In the course of their Dance studies, students will explore a physical and intellectual understanding of the language of movement. Kinesthetic and intellectual learning are combined to develop in student's self-awareness and collaborative cooperation.

#### Why Consider a Dance Minor?

The Dance Minor is designed to give students with a general interest in Dance a fundamental background in technique, functional alignment, and dance history. Contemporary technique is emphasized and there are diverse options for the elective choices within the Minor. Dance minors cultivate multiple skills that are essential in all fields, including self-discipline, collaboration, patience and problem-solving.

#### Contact Information

**Department Chair**  
Beth Leonard

**Minor Information:**  
Cher Carnell

# THEATRE AND DANCE

Performing Arts 395B  
360-650-3880  
Beth.Leonard@wwu.edu

Commissary 113C  
360-650-3893  
Cher.Carnell@wwu.edu

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students must have a Contemporary placement of Level One or above. To arrange for a technique level placement and to declare the Dance Minor please contact Cher Carnell, Director of Dance, Cher.Carnell@wwu.edu, 360-650-3893, CM 113C.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- DNC 121 - Contemporary Dance I - Level 1
- DNC 122 - Contemporary Dance I - Level 2
- DNC 123 - Contemporary Dance I - Level 3
- DNC 211 - Ballet II - Level 1
- DNC 221 - Contemporary Dance II - Level 1
- DNC 222 - Contemporary Dance II - Level 2
- DNC 223 - Contemporary Dance II - Level 3
- DNC 231 - Introduction to Dance in Western Cultures
- DNC 257 - Performance  
or DNC 357 - Repertory
- DNC 339 - Functional Alignment
- 3-6 credits (under advisement) selected from the following:
  - DNC 232 - Movement and Culture
  - DNC 311 - Ballet III - Level 1
  - DNC 312 - Ballet III - Level 2
  - DNC 313 - Ballet III - Level 3
  - DNC 321 - Contemporary Dance III - Level 1
  - DNC 340 - Anatomy for Dancers
  - DNC 342 - Choreography II
  - DNC 434 - Dance Arts in Education
  - DNC 442 - Advanced Choreography
  - THTR 210 - Foundations in Design Communication  
or THTR 212 - Introduction to Stage Technology
  - THTR 212 - Introduction to Stage Technology
  - THTR 216 - Introduction to Costuming
  - THTR 255 - Theatre Production: Technology (up to 2 credits)

## Theatre Minor

Department of Theatre and Dance, College of Fine and Performing Arts

### 30 Credits

#### Contact Information

**Department Chair**

Beth Leonard  
Performing Arts 395B  
360-650-3880  
Beth.Leonard@wwu.edu

**Administrative Services Manager**

Erin Emry  
Performing Arts 385  
360-650-7310  
Erin.Emry@wwu.edu

**Program Coordinator**

Ashley VanCurler  
Performing Arts 395  
360-650-3876  
Ashley.VanCurler@wwu.edu

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- THTR 101 - Introduction to the Art of the Theatre
- THTR 160 - Introduction to Acting
- THTR 210 - Foundations in Design Communication
- THTR 212 - Introduction to Stage Technology
- THTR 228 - Understanding Plays
- One course from:
  - THTR 370 - Play Direction
  - THTR 380 - Theatre History I
  - THTR 381 - Theatre History II
  - THTR 382 - Theatre History III
  - THTR 428 - Topics in Theatrical Performance
- One course from:
  - THTR 216 - Introduction to Costuming
  - THTR 260 - Acting Studio I: Theory
  - THTR 314 - Stage Management
  - THTR 384 - Introduction to Dramatic Writing
- Electives under advisement

## Dance Courses

### DNC 100 - Mod-Hop I

Entry level technique class that is a fusion of contemporary dance styles, including hip-hop, African jazz and modern dance. Emphasis on rhythm, conditioning, isolation and individuality. Repeatable to a maximum of 6 credits. S/U grading.

**Credits:** 2

**Grade Mode:** S/U

### DNC 101 - Open Ballet

No dance experience required. Basic principles of ballet as an artistic and physical medium. Introduction to ballet terminology, basic barre exercises, simple combinations in adagio and allegro. Repeatable to a maximum of 6 credits. S/U grading.

**Credits:** 2

**Grade Mode:** S/U

### DNC 102 - Beginning Contemporary Dance

No dance experienced required. The study of the basic principles of movement: space, time and

effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Open to non-minors. Repeatable to a maximum of 6 credits. S/U grading.

**Credits:** 2

**Grade Mode:** S/U

### DNC 108 - Introduction to the Fine Arts: the Classics

This course focuses on those artists whose greatness has withstood the test of time, in Art, Dance, Music and Theatre. Guest lecturers, readings, discussions and reflective papers will explore connective threads of those individual artists who have made extraordinary contributions to society and culture.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### DNC 111 - Ballet I - Level 1

Introduction to the basic principles of ballet as an artistic and physical medium. Emphasis on French terminology, basic barre exercises, simple combinations in adagio and allegro. Open to non-majors. Repeatable to a maximum of 4 credits.

## THEATRE AND DANCE

**Prerequisites & Notes:** Audition or level placement and instructor permission.

**Credits:** 2

**Grade Mode:** Letter

### DNC 112 - Ballet I - Level 2

Builds on principles introduced in DNC 111, including the basic principle of ballet as an artistic and physical medium. Emphasis on French terminology, basic barre exercises, simple combinations in adagio and allegro. Open to non-majors. Repeatable to a maximum of 4 credits.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 111 recommended.

**Credits:** 2

**Grade Mode:** Letter

### DNC 113 - Ballet I - Level 3

Builds on principles introduced in DNC 112, including the basic principles of ballet as an artistic and physical medium. Emphasis on French terminology, basic barre exercises, simple combinations in adagio and allegro. Open to non-majors. Repeatable to a maximum of 4 credits.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 111, DNC 112 recommended.

**Credits:** 2

**Grade Mode:** Letter

### DNC 121 - Contemporary Dance I - Level 1

The study of the basic principles of movement: space, time, effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Repeatable to maximum of 6 credits.

**Prerequisites & Notes:** Audition or level placement and instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### DNC 122 - Contemporary Dance I - Level 2

The study of the basic principles of movement: space, time, effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 121 recommended.

**Credits:** 3

**Grade Mode:** Letter

### DNC 123 - Contemporary Dance I - Level 3

The study of the basic principles of movement: space, time, effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 121, DNC 122 recommended.

**Credits:** 3

**Grade Mode:** Letter

### DNC 200 - Mod-Hop II

More advanced exploration of contemporary dance styles, including hip-hop, African jazz, and modern dance. Emphasis on complex rhythm, phrasing and performance. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 100 or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

### DNC 203 - Jazz Dance

This course focuses on the technical and expressive aspects of jazz dance and develops awareness of line, speed, balance and strength. Attention is placed on alignment, conditioning, musicality, and synthesis of combinations.

**Prerequisites & Notes:** Instructor permission; by audition.

**Credits:** 2

**Grade Mode:** Letter

### DNC 208 - Contact Improvisation

This course explores the fundamentals of improvising with another dancer(s), primarily employing the momentum and support derived through physical contact with one's partner. Improvisation and partnering are skills essential to a dancer's development as genuine creators and performers. Repeatable up to 4 credits.

**Prerequisites & Notes:** Dance major or minor, or permission of instructor.

**Credits:** 2

**Grade Mode:** S/U

### DNC 211 - Ballet II - Level 1

Further development in principles of ballet. Increased difficulty and terminology. Preparation for advanced levels. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 111, DNC 112, DNC 113 recommended.

**Credits:** 2

**Grade Mode:** Letter

### **DNC 212 - Ballet II - Level 2**

Further development in principles of ballet. Increased difficulty and terminology. Preparation for advanced levels. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 211 recommended.

**Credits:** 2

**Grade Mode:** Letter

### **DNC 213 - Ballet II - Level 3**

Further development in principles of ballet. Increased difficulty and terminology. Preparation for advanced levels. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 211, DNC 212 recommended.

**Credits:** 2

**Grade Mode:** Letter

### **DNC 221 - Contemporary Dance II - Level 1**

Further development in movement principles established in Contemporary Dance I. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 121, DNC 122, DNC 123 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 222 - Contemporary Dance II - Level 2**

Continues with further development in movement principles established in Contemporary Dance I. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 221 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 223 - Contemporary Dance II - Level 3**

Continues with further development in movement principles established in Contemporary Dance I.

Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 221, DNC 222 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 230 - Making Movement Art**

First-year students only. An investigation of how dances are made. Students will be exposed to movement art through readings, lectures, videos, live performances, interviews, out of class observations, and laboratory experiences. Students will also have the opportunity to interact with several dance faculty and guest artists as well as faculty in other departments of the College of Fine and Performing Arts.

**Prerequisites & Notes:** First-year students.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **DNC 231 - Introduction to Dance in Western Cultures**

An historical and cultural overview, from the primitive to the contemporary, of the development of dance as an art form in Western civilization.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** CCOM

### **DNC 232 - Movement and Culture**

An investigation of movement and dance as a vehicle for understanding culture through movement labs, readings, films and discussions.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **DNC 242 - Choreography I**

Introduction to basic principles of choreography: articulating a concept, finding movement vocabulary, and developing a structure. Prepares students to handle the rehearsal process from the point of view of a choreographer. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Concurrent enrollment in DNC 221 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **DNC 243 - Dance and Technology I**

## THEATRE AND DANCE

Introduction to sound and video editing software and filming/framing techniques for use in the creation of Dances for Camera and other time based art. Repeatable up to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 242.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 257 - Performance**

Direct instruction and experience in performance work. Repeatable to a maximum of 8 credits. S/U grading.

**Prerequisites & Notes:** being cast in a faculty-directed production

**Credits:** 2

**Grade Mode:** S/U

### **DNC 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **DNC 311 - Ballet III - Level 1**

Comprehensive barre and center floor work with emphasis on strength, flexibility, stamina, musicality, and performance projection in all areas of the class enchainements. Variations from classical ballet repertoire may be included. Repeatable to a maximum of 12 credits, including the original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 211, DNC 212, DNC 213 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 312 - Ballet III - Level 2**

Comprehensive barre and center floor work with emphasis on strength, flexibility, stamina, musicality, and performance projection in all areas of the class enchainements. Variations from classical ballet repertoire may be included. Repeatable to a maximum of 12 credits, including the original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 311

recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 313 - Ballet III - Level 3**

Comprehensive barre and center floor work with emphasis on strength, flexibility, stamina, musicality, and performance projection in all areas of the class enchainements. Variations from classical ballet repertoire may be included. Repeatable to a maximum of 12 credits, including the original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 311, DNC 312 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 321 - Contemporary Dance III - Level 1**

Advanced studies of movement principles established in Contemporary Dance II. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 221, DNC 222, DNC 223 DNC 339 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 322 - Contemporary Dance III - Level 2**

Advanced studies of movement principles established in Contemporary Dance II. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 321, DNC 339 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 323 - Contemporary Dance III - Level 3**

Advanced studies of movement principles established in Contemporary Dance II. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 321, DNC 322, DNC 339 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 334 - Music and Movement**

An interdisciplinary examination of music and



movement that addresses rhythmic acuity for the dancer, accompaniment for the dance teacher and underscoring dance for the choreographer. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 221, DNC 222, DNC 223 or formal music instruction at the 100 level or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

### **DNC 339 - Functional Alignment**

An internal exploration of functional alignment and its practical application towards movement and dancing. Experiential exercises that will enable the development and increased awareness of anatomical alignment and its relationship to range of motion, flexibility, strength, and movement potential. Introduction to proper anatomical and kinesiological terminology. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 121, DNC 122, DNC 123 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 340 - Anatomy for Dancers**

An investigation of the human body and how it works. Through lectures, readings and laboratory experiences, students will analyze skeletal systems, individual differences, common dance injuries, and proper conditioning for dancers.

**Prerequisites & Notes:** DNC 339 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **DNC 342 - Choreography II**

Further study of the principles of choreography. In addition to concepts, movement, vocabulary and structure this class involves experimentation with theme and development, use of music, as well as construction/deconstruction/reconstruction of choreographic forms and content. Training the thinking artist and the artistic thinker. Repeatable to a maximum of 8 cr.

**Prerequisites & Notes:** DNC 242.

**Credits:** 4

**Grade Mode:** Letter

### **DNC 343 - Dance and Technology II**

Builds on skills learned in DNC 243 and applies an artistic process to the use of editing software and video equipment; combining visual design, choreographic skills and advanced filming and

editing techniques to create Dances for the Camera and other time based art. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 223, DNC 243, DNC 342.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 345 - Fundamentals of Contemporary Partnering**

Students explore elements of contemporary partnering including transfer of weight, momentum/leverage, counter balancing and moving in harmony. The class is not gender specific. The warm-up includes exercises to enhance kinesthetic awareness and to facilitate ease and comfort in lifting and being lifted. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** DNC 221, DNC 222, DNC 223 or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

### **DNC 357 - Repertory**

The process work, which leads to performance, involved in the creation and/or reconstruction of a major choreographic work. Repeatable to a maximum of 8 credits.

**Credits:** 2

**Grade Mode:** Letter

### **DNC 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. Also offered as ART 398, MUS 398 and THTR 398.

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## THEATRE AND DANCE

### **DNC 403 - Senior Seminar**

This course is designed for senior Dance majors to focus on skills and knowledge important for a successful transition to graduate school or professional employment in dance.

**Credits:** 1

**Grade Mode:** Letter

### **DNC 404 - Capstone Preparation**

This course is designed to assist BFA candidates with their rehearsal processes, as performers and as choreographers, in preparation for and presentation of their culminating Capstone performances.

**Prerequisites & Notes:** BFA degree candidacy, senior status.

**Credits:** 1

**Grade Mode:** Letter

### **DNC 421 - Contemporary Dance IV - Level 1**

A performance approach to dance techniques - phrasing, musicality and clarity of intentions are emphasized at this level. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 321, DNC 322, DNC 323 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 422 - Contemporary Dance IV - Level 2**

A performance approach to dance techniques - phrasing, musicality and clarity of intentions are emphasized at this level. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 421 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 423 - Contemporary Dance IV - Level 3**

A performance approach to dance techniques - phrasing, musicality and clarity of intentions are emphasized at this level. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Audition or level placement and instructor permission. DNC 421, DNC 422 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 430 - Real Life Skills for Dancers**

This course helps students to explore their personal goals, aesthetics involved in goal setting, and to develop a resume and Capstone portfolio. The course will examine emotional and physical well-being as well as graduate education and career opportunities in dance.

**Prerequisites & Notes:** Dance major with junior/senior status.

**Credits:** 2

**Grade Mode:** Letter

### **DNC 431 - History of Western Dance Since 1450**

Ballet and modern dance forms of Western culture from the Renaissance into the era of contemporary movement art. Will include reviews of live performances, and study of leading dance artists and their historical significance. This course explores effective writing in the discipline of Dance through reflection, critical analysis, and historical research.

**Prerequisites & Notes:** DNC 231

**Credits:** 4

**Grade Mode:** Letter

### **DNC 433 - Creative Movement for Educators With Lab**

Methodologies of teaching creative movement to children. Exploration and integration of the elements of space, time, and effort as reflective of the Essential Academic Learning Requirements in the dance arts.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **DNC 434 - Dance Arts in Education**

Materials for the methodology of teaching the formal dance techniques of modern dance and ballet for students of the dance major and additional teaching endorsement. Observations and teaching opportunities included.

**Prerequisites & Notes:** DNC 339, DNC 340; demonstrated competency at the advanced level of technique.

**Credits:** 3

**Grade Mode:** Letter

### **DNC 442 - Advanced Choreography**

Practical application of choreographic process in the performance setting. Experience in collaboration with costume and lighting designers

to support and realize choreographic intention by means of the unity of supporting elements. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** DNC 342 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

## Theatre Arts Courses

### THTR 101 - Introduction to the Art of the Theatre

An introduction to the nature of the theatre, to plays and the way they work, and to the arts of the theatre and the activities of those who perform them.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### THTR 160 - Introduction to Acting

Fundamentals of acting with emphasis on basic techniques and tools used by the actor. Includes improvisation; resume writing; auditioning; and vocal, physical and emotional awareness.

**Credits:** 3

**Grade Mode:** Letter

### THTR 168 - Introduction to Film: Acting and Production

Introduction to rudimentary acting and production techniques, including professional conduct, script analysis and audition process.

**Credits:** 3

**Grade Mode:** Letter

### THTR 184 - Writing for the Stage

This week-long intensive workshop focuses on writing for the stage – character creation, conflict and structure- resulting in the production of a working script and a staged reading. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### THTR 201 - Introduction to the Cinema

Training eye and ear to appreciate the work of the filmmaker. Analysis of the basic conventions of technique with an emphasis on critical exposition.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### THTR 202 - Film Genre

Exploring the development, structure, conventions, aesthetics, historical and cultural facets that comprise a specific genre in film. Examples include Film Noir, Western, Horror, etc.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

### THTR 210 - Foundations in Design Communication

Introduction to theatre design concepts and principles, art techniques and theatre design critical language. Exploration of art media, drawing, painting and design presentation in relation to theatre design through dramatic analysis and design expression.

**Credits:** 3

**Grade Mode:** Letter

### THTR 212 - Introduction to Stage Technology

Basic theory of planning, drafting, construction and rigging for stagecraft and lighting technology.

**Credits:** 4

**Grade Mode:** Letter

### THTR 213 - Stage Technology Practicum

Practice of basic theory in stagecraft and theatre technology. 12 hours of lab required.

**Prerequisites & Notes:** THTR 212 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### THTR 215 - Stage Make-Up

Theory and practice of applying makeup for the stage with emphasis on character development, facial anatomy and aging.

**Credits:** 2

**Grade Mode:** Letter

### THTR 216 - Introduction to Costuming

Introduction to costume technology, design and color theory, play analysis, costume history, and drawing/rendering techniques. 8 hours of lab work required.

**Prerequisites & Notes:** THTR 101 recommended.

## THEATRE AND DANCE

**Credits:** 3

**Grade Mode:** Letter

### **THTR 218 - Costume Figure Drawing**

An introductory course focusing on costume figure drawing as a means of conveying costuming ideas through traditional and digital methods.

**Prerequisites & Notes:** Co-requisite: THTR 216.

**Credits:** 3

**Grade Mode:** Letter

### **THTR 228 - Understanding Plays**

Reading play scripts with an eye to theatrical production. Introduction to primary dramatic forms (tragedy, comedy). Practice in speaking and writing intelligently about plays.

**Prerequisites & Notes:** THTR 101 or permission of instructor

**Credits:** 3

**Grade Mode:** Letter

### **THTR 255 - Theatre Production: Technology**

Serve as a member of the production crew for a departmental production in the areas of costumes, scenery, lighting, sound, stage management, and general backstage crew. Repeatable up to 3 times. S/U grading.

**Prerequisites & Notes:** THTR 212 or permission of instructor.

**Credits:** 1

**Grade Mode:** S/U

### **THTR 256 - Rehearsal and Performance**

For theatre majors (before 50 hours in major) and non-majors: practical experience in rehearsal and performance. S/U grading.

**Prerequisites & Notes:** Permission of Instructor.

**Credits:** 2

**Grade Mode:** S/U

### **THTR 260 - Acting Studio I: Theory**

Exploration of the theory of the physical, vocal, intellectual and emotional instrument of the individual actor in relation to character demands of a scene or play through the studio approach. Students demonstrate their knowledge of theory in both written and oral forms.

**Prerequisites & Notes:** Audition and permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **THTR 261 - Voice Studio I: Voice and Breath**

The fundamentals of Voice and Speech for Actors with an emphasis on developing resonance, finding vocal variety, and communicating with clarity and efficiency. Includes work with dramatic and poetic text.

**Prerequisites & Notes:** THTR 160 and instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **THTR 263 - Movement for Actors**

An actor's introduction to the history, vocabulary and basic techniques of several styles of theatrical movement and dance. Topics may include ballet, modern, jazz, tap, hip-hop, mask, combat and period styles. The actor will also explore character development through movement and dance. Repeatable to a maximum of 6 cr.

**Credits:** 2

**Grade Mode:** Letter

### **THTR 264 - Movement Studio I: Grotowski**

An introduction to Jerzy Grotowski's approach to acting, resulting in scene work based on emotional need discovered through movement.

**Prerequisites & Notes:** THTR 260

**Credits:** 3

**Grade Mode:** Letter

### **THTR 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **THTR 309 - Period Styles**

This course introduces students to the social, historical and artistic forces behind period styles.

**Credits:** 3

**Grade Mode:** Letter

### **THTR 310 - Scene Painting**

A survey of traditional scene painting with emphasis on color, technique, materials, tools and formulas.

**Prerequisites & Notes:** THTR 212.

**Credits:** 3

**Grade Mode:** Letter

### THTR 311 - Beginning Scene Design

Investigates how stage designers create a visual world for works of drama, music and dance.

**Prerequisites & Notes:** THTR 210, THTR 212.

**Credits:** 3

**Grade Mode:** Letter

### THTR 312 - Digital Drawing for Theatre Design

This course introduces students to digital media drawing techniques using industry standard software.

**Credits:** 3

**Grade Mode:** Letter

### THTR 313 - Beginning Lighting Design

Technical and artistic study of light and color as they affect other theatre arts and contribute to artistic design; laboratory work in production.

**Prerequisites & Notes:** THTR 311

**Credits:** 3

**Grade Mode:** Letter

### THTR 314 - Stage Management

An in-depth study of the stage manager's role and responsibilities before, during and after production. Assignment to one major production.

**Prerequisites & Notes:** 2 credits of acting and THTR 212.

**Credits:** 3

**Grade Mode:** Letter

### THTR 315 - Advanced Makeup

An advanced study of the history, technique and application of theatrical make-up. Repeatable up to 6 credits, including original course.

**Prerequisites & Notes:** THTR 215

**Credits:** 3

**Grade Mode:** Letter

### THTR 316 - Beginning Costume Design

Theory, critical language, play analysis and studio experience for design and rendering of costumes for the stage.

**Prerequisites & Notes:** THTR 210, THTR 216 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### THTR 318 - Puppetry

Design, construction and manipulation of puppets with focus on the history of puppets and puppet making.

**Credits:** 3

**Grade Mode:** Letter

### THTR 319 - Millinery

History, design and construction of hats for the theatre.

**Prerequisites & Notes:** THTR 216

**Credits:** 2

**Grade Mode:** Letter

### THTR 320 - Digital Drafting and Design Modeling

Practical working knowledge of drafting and design software.

**Prerequisites & Notes:** THTR 210; THTR 212; or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### THTR 321 - 3D Digital Modeling and Design

This course introduces concepts and methods of digital design composition appropriate for theater designers, engineers, artists and students of any field that work with physical and digital models.

**Credits:** 4

**Grade Mode:** Letter

### THTR 328 - Dramaturgy: Writing, Research and Critique

Dramaturgy for the theatre discipline: including review and critique, technical writing and methods of production research.

**Prerequisites & Notes:** ENG 101

**Credits:** 3

**Grade Mode:** Letter

### THTR 330 - Beginning Theatre Pedagogy

A teaching assistant discussion/observation course designed to provide theatre students with experience and guidance in assisting an instructor in a particular theatre course. Repeatable up to 4 credits.

**Prerequisites & Notes:** instructor permission

## THEATRE AND DANCE

**Credits:** 1-2  
**Grade Mode:** Letter

### THTR 350 - Theatre for Youth

Exploration of the history, philosophy, literature and techniques for creating theatre for young audiences.

**Credits:** 3  
**Grade Mode:** Letter

### THTR 351 - Creative Pedagogy

Instructional methods in theatre arts, design, analysis and practical application of theatre arts techniques and pedagogy through observation, seminar and practicum in the theatre department.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### THTR 353 - Touring Theatre I

An intensive and comprehensive involvement in the study and practice of creating and performing theatre for youth. This is a two-quarter commitment, audition required. Repeatable once for a maximum of 6 credits.

**Prerequisites & Notes:** Permission of instructor, audition required.  
**Credits:** 3  
**Grade Mode:** Letter

### THTR 354 - Touring Theatre II

Participants prepare all aspects of a touring production and accompanying educational support materials offered to elementary or secondary schools in Washington. This is a two-quarter commitment. Repeatable once for a maximum of 6 credits.

**Prerequisites & Notes:** THTR 353 and permission of instructor.  
**Credits:** 3  
**Grade Mode:** Letter

### THTR 355 - Intermediate Theatre Technology

Practical experience as an assistant designer or other assistant technical role on a departmental production in the areas of costumes/makeup, scenery, lighting, sound, and stage management. Repeatable up to 6 credits including original course.

**Prerequisites & Notes:** THTR 210; THTR 212; THTR 216; or instructor permission

**Credits:** 2  
**Grade Mode:** Letter

### THTR 356 - Rehearsal and Performance II

Practical experience in rehearsal and performance of university productions. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
**Credits:** 1-3  
**Grade Mode:** S/U

### THTR 360 - Acting Studio II: Interpretation of a Role

Continuation of skills and refinement of techniques presented in earlier acting studios, but with a strong emphasis on the use of the body and physical characterization. Scene work of several periods and styles is required.

**Prerequisites & Notes:** THTR 255; THTR 210, audition and instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

### THTR 361 - Voice Studio II: Speech and Language

Continued refinement of skills and techniques presented in Voice Studio I, but with strong emphasis on diction and clarity of speech. Includes work with dialects and challenging dramatic text.

**Prerequisites & Notes:** THTR 255; THTR 210; audition and instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

### THTR 362 - Irene Ryans and URTA Auditions

Preparation course for students selected to compete in the Kennedy Center's American College Theatre Festival's Irene Ryans acting competition and URTA graduate school auditions. Repeatable up to a maximum of three credits, including original course.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 1  
**Grade Mode:** S/U

### THTR 363 - Voice and Diction

Sequence of exercises and drills challenging improvement in resonance, breath support, articulation, relaxation, placement and vocal work ranging from good stage speech (mid-Atlantic) to dialect.

**Prerequisites & Notes:** Audition and permission of instructor.

**Credits:** 3  
**Grade Mode:** Letter

**THTR 364 - Movement Studio II:  
 Suzuki/Viewpoints**

An introductory exploration of the Suzuki and Viewpoints actors training movement systems intended to build an actor's awareness of his/her body, especially the center. The method uses exercises that are inspired by Greek theater as well as martial arts and requires great amounts of energy and concentration allowing greater awareness of natural expressiveness in order to commit more fully to the physical and emotional requirements of acting.

**Prerequisites & Notes:** THTR 255; THTR 210; audition and instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

**THTR 366 - Musical Theatre**

Practical application of singing and acting to performance-related work from American musical theatre through solo, duet and group exploration.

**Prerequisites & Notes:** THTR 260 or instructor permission  
**Credits:** 3  
**Grade Mode:** Letter

**THTR 368 - Acting for the Camera**

An exploration and application of techniques and approaches for actors reflected currently in the film and television industry.

**Prerequisites & Notes:** THTR 260, THTR 261, acceptance into THTR 360.  
**Credits:** 3  
**Grade Mode:** Letter

**THTR 370 - Play Direction**

Theory and practice of stage direction including selection of play, casting and blocking. Production of a scene for public performance is required.

**Prerequisites & Notes:** THTR 160; THTR 210; THTR 212; THTR 228; or instructor permission.  
**Credits:** 3  
**Grade Mode:** Letter

**THTR 371 - Directing Projects**

Individualized practicum in directing for the stage. Repeatable up to 6 credits.

**Prerequisites & Notes:** THTR 370

**Credits:** 1-6  
**Grade Mode:** Letter

**THTR 380 - Theatre History I**

Development of theatre to the Renaissance.

**Prerequisites & Notes:** THTR 101 recommended, THTR 228  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

**THTR 381 - Theatre History II**

Development of theatre from the Renaissance to the beginning of realism.

**Prerequisites & Notes:** THTR 101 recommended, THTR 228; THTR 380 recommended  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

**THTR 382 - Theatre History III**

Development of theatre from the beginnings of realism to contemporary theatre.

**Prerequisites & Notes:** THTR 101 recommended, THTR 228; THTR 380, THTR 381 recommended  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

**THTR 383 - Costume History**

Evolution of costume from ancient Greece through present-day fashion with reference to theatrical production.

**Credits:** 4  
**Grade Mode:** Letter

**THTR 384 - Introduction to Dramatic Writing**

Beginning exercise in dramatic writing, with emphasis on primary forms and conventions.

**Prerequisites & Notes:** THTR 228 or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

**THTR 385 - Topics in Intermediate Costume Technology and Construction**

Course focuses on varied costume technology and construction methods. Repeatable up to 6 credits, including original course.

**Prerequisites & Notes:** THTR 216

## THEATRE AND DANCE

**Credits:** 3

**Grade Mode:** Letter

### **THTR 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. (Also offered as ART 398, MUS 398 and DNC 398).

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

**Credits:** 3

**Grade Mode:** Letter

### **THTR 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **THTR 411 - Advanced Scenic Design**

Contemporary stage design practice and theory with an emphasis on artistic interpretation of dramatic literature and music as a visual design.

**Prerequisites & Notes:** THTR 311 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **THTR 412 - Advanced Stagecraft**

Technical analysis of scripts, special effects, computers and properties. Laboratory work on productions.

**Prerequisites & Notes:** THTR 212, THTR 312.

**Credits:** 4

**Grade Mode:** Letter

### **THTR 413 - Advanced Lighting Design**

Concepts and techniques of drafting and computer-assisted drafting, text work sheets, and application programs related to lighting design.

**Prerequisites & Notes:** THTR 313.

**Credits:** 4

**Grade Mode:** Letter

### **THTR 414 - Theatre Business Practices**

Examination of the theories and approaches to business management in the theatre as well as practical application of those theories discussed including budgeting, promoting and producing.

**Prerequisites & Notes:** THTR 314; THTR 101 recommended.

**Credits:** 4

**Grade Mode:** Letter

### **THTR 416 - Advanced Costume Design**

Exploration and execution of complete designs of costumes for the modern theatre with emphasis on the development of the design concept and interpretation.

**Prerequisites & Notes:** THTR 316, THTR 382, THTR 383.

**Credits:** 4

**Grade Mode:** Letter

### **THTR 420 - Advanced Theatre Design and Portfolio Development**

Exploration and project execution of complete design paper project including all supporting technical and research materials leading to a final presentation of designer portfolio.

**Prerequisites & Notes:** THTR 212; and one from THTR 411, THTR 413, THTR 416

**Credits:** 5

**Grade Mode:** Letter

### **THTR 428 - Topics in Theatrical Performance**

The in-depth exploration of an individual playwright or group of playwrights, or performance genre such as devising, opera, theatre and community, or theatre for social change. Courses will be taught as seminar only and/or combination seminar plus lab. Credits vary from three to four dependent on course offered. Repeatable under separate topics.

**Prerequisites & Notes:** THTR 222 or THTR 228.

**Credits:** 3 or 4

**Grade Mode:** Letter

### **THTR 450 - Theatre for Youth II**

Advanced techniques in youth theatre. Each student selects and prepares a script for performance for and/or by youth.

**Prerequisites & Notes:** THTR 350.

**Credits:** 3

**Grade Mode:** Letter



**THTR 452 - Secondary Theatre Techniques**

Exploration of techniques and curriculum for use in secondary theatre classrooms. Creation of lesson plans and projects aimed specifically for theatre students. This course has a required academic Service-Learning component.

**Prerequisites & Notes:** THTR 351; acting and directing courses strongly recommended.

**Credits:** 4

**Grade Mode:** Letter

**THTR 455 - Advanced Production and Design**

Practical experience as a designer or other lead technical role on a departmental production in the areas of costumes/makeup, scenery, lighting, sound, and stage management. Repeatable to a maximum of 8 credits including original course.

**Prerequisites & Notes:** THTR 355 and instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**THTR 460 - Acting Studio III: Personal Performance**

Continued refinement of skills and techniques introduced in previous studios, with special emphasis on individual acting problems.

**Prerequisites & Notes:** Audition and instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**THTR 461 - Voice Studio III: Shakespeare**

Continued refinement of skills and techniques presented in Voice Studio II, with a strong emphasis on the robust use of text and language as exemplified in the plays of Shakespeare, and other plays with heightened text.

**Prerequisites & Notes:** Audition and instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**THTR 462 - Advanced Acting Topics**

Students study specific advanced acting techniques and styles and apply them directly through production performance. Repeatable with different topics up to a maximum of 10 credits.

**Prerequisites & Notes:** Audition and permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**THTR 463 - Audition Preparation**

Preparation of several contrasting monologues and development of specific performance skills to best demonstrate the varied talents of the individual actor in an audition format. S/U grading.

**Prerequisites & Notes:** Audition and permission of instructor.

**Credits:** 2

**Grade Mode:** S/U

**THTR 464 - Movement Studio III: Advanced Suzuki/Viewpoints**

An advanced exploration of the Suzuki and Viewpoints actor training movement systems.

**Prerequisites & Notes:** Audition and permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**THTR 465 - Summer Stock II**

Offered only summer quarter. Contact director of theatre for details. Repeatable once.

**Prerequisites & Notes:** Written permission of director of Summer Stock. Offered only summer quarter.

**Credits:** 1-15

**Grade Mode:** Letter

**THTR 470 - Play Direction II**

Producing and directing a one-act play for public performance; special emphasis on working with the actor.

**Prerequisites & Notes:** THTR 314, THTR 370; 30 hours in the major and permission of instructor

**Credits:** 4

**Grade Mode:** Letter

**THTR 471 - Advanced Directing Projects**

Individualized practicum in directing for the stage. Repeatable up to 6 credits.

**Prerequisites & Notes:** THTR 470

**Credits:** 1-6

**Grade Mode:** Letter

**THTR 480 - Devising Production**

Students devise an original work for the main stage theatre season through phases of research, creation, and development. All students write, design, and perform the piece.

**Prerequisites & Notes:** Audition Course -

## THEATRE AND DANCE

Permission of Instructor.

**Credits:** 5

**Grade Mode:** Letter

### **THTR 485 - Dramatic Writing Workshop**

Opportunity for disciplined expression in writing for stage, film, television or other media. May be repeated under separate topics to a maximum of 12 credits.

**Prerequisites & Notes:** THTR 384 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **THTR 495 - Internship**

Qualified third- and fourth-year students may apply to apprentice with theatre companies, performing arts agencies or producing organizations. Repeatable to a maximum of 24 cr. S/U grading.

**Prerequisites & Notes:** Junior status or above and permission of Chair.

**Credits:** 1-12

**Grade Mode:** S/U

### **THTR 496 - Senior Capstone Thesis**

Capstone research or reflective thesis demonstrating deep knowledge of an area within the student's declared theatre concentration. Topics are arranged in conjunction with and approval from student's departmental advisor.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 1

**Grade Mode:** Letter

# College of Humanities and Social Sciences

## Introduction

Dr. Brent Mallinckrodt, Dean

The College of Humanities and Social Sciences, Western's largest academic unit, is composed of two divisions: the humanities (communication studies, English, history, journalism, liberal studies, modern and classical languages, philosophy) and the social and behavioral sciences (anthropology, communication sciences and disorders, health and human development, political science, psychology, sociology). These 13 departments offer more than 40 bachelor's degrees and 10 master's degrees, along with five interdisciplinary programs in East Asian studies; linguistics; multidisciplinary studies, women, gender, and sexuality studies; and student/faculty designed majors.

The college houses several research and service centers, including the Center for Cross-cultural Research, the Center for Performance Excellence, and two community-based professional training centers: the Speech and Hearing Clinic and the Psychology Counseling Clinic. In addition, the college has five nationally accredited professional programs: school counselor, mental health counseling, speech-language pathology, community health and recreation.

## Mission Statement

The College serves the University by engaging students in distinctive, diverse programs in social and behavioral sciences and the humanities. Emerging from a vibrant liberal arts core, our

collaborative learning environment inspires individual, social, cultural, creative and scientific exploration. Students devise and apply innovative solutions, embrace divergent worldviews, consider the ethical implications of their actions and communicate effectively in their professional, public and personal lives. Together, students, faculty and staff generate knowledge, pursue research, and foster life-long learning to contribute to the well-being of communities from local to global.

## Objectives of College:

The College of Humanities and Social Sciences partners with the College of Science and Engineering to provide students with a three-component liberal education: first, a program of education-in-breadth through the General University Requirements (GURs) intended to prepare students for postgraduate life as educated persons and citizens; second, a program of education-in-depth in a disciplinary or interdisciplinary major designed to prepare students for careers or graduate study; and third, a choice of elective courses which can help satisfy the student's curiosity about any of the multitude of subjects that the University curriculum embraces. With each of these components, the college intends to produce graduates who are capable of informed and critical thinking; who have learned to tolerate ambiguity; who can appreciate cultural differences; who have developed moral and aesthetic sensibilities; who have mastered the basic tools of literacy and technology and who have acquired levels of information about the natural and social worlds, past and present, sufficient for responsible citizenship and the enjoyment of a civilized society. The college places strong emphasis on student-faculty collaboration in developing these skills through active learning, including laboratory experiences, community-based faculty-directed service learning, and student involvement in faculty research programs.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Anthropology	BA, BAE, MA
Anthropology/Archaeology Concentration	BA
Anthropology/Biocultural Concentration	BA
Anthropology/Biology	BA
Anthropology/Social Studies	BA
Archives and Records Management	MA
Behavioral Neuroscience	BS
Biology/Anthropology	BS
Communication Sciences & Disorders	BA, MA, AuD (pending approval)
Community Health	BS
Communication Studies	BA, BAE
Double Language Major (French, German, Spanish)	BA
East Asian Studies	BA

## COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Economics/Political Science	BA
English/Creative Writing	MFA
English/Creative Writing Emphasis	BA
English/English Studies	MA
English/Literature Emphasis	BA
Environmental Studies/Journalism (program in moratorium)	BA
Experimental Psychology	MS
History	BA, BAE, MA
History/Social Studies	BA
Humanities/History of Culture	BA
Humanities/Religion & Culture	BA
Journalism	BA
Kinesiology	BS, MS
Linguistics	BA
Mental Health Counseling	MS
Modern and Classical Languages (Chinese, French, German, Japanese, Spanish)	BA, BAE
Multidisciplinary Studies	BA
Philosophy	BA
Physical Education and Health ~ P-12	BAE
Political Science	BA
Political Science/Economics	BA
Political Science/Social Studies	BA
Politics/Philosophy/Economics	BA
Psychology	BAE, BS
Recreation	BA
School Counselor	M/Ed
Sociology	BA, BAE, BS
Sociology/Social Studies	BA
Student/Faculty Designed Major	BA, BS

### Majors and Minors

In addition to the GURs and other common degree requirements of the University, the candidate for a Bachelor of Arts or Bachelor of Science degree must complete a major area emphasis, which is usually accompanied by supporting courses. A minor is optional. A few concentrations are offered which encompass both a major and a minor. Students will confer with appropriate departmental advisors to plan study programs. Transfer students are expected to complete at least a portion of their work in the major and minor fields in this institution.

### Student/Faculty Designed, BA or BS (College of Humanities and Social Sciences)

Students desiring concentrated study in areas not listed as majors by departments of the College of Humanities and Social Sciences may design a major in conference with faculty members. Procedures for the Student/Faculty Designed majors (BA or BS) are available from the

Department of Liberal Studies or at [chss.wvu.edu/liberal-studies/studentfaculty-designed-majors](http://chss.wvu.edu/liberal-studies/studentfaculty-designed-majors).

### College Admission and Advisement

#### Academic Advisement

As the student completes the freshman year, which consists largely of courses that meet the GURs, he or she is referred to the academic departments for continued personalized advisement in planning and selecting courses of study. Faculty within each department share responsibility for counseling students electing concentrations in their area. In some cases, faculty from several departments may cooperate with a student in constructing his or her own interdisciplinary major; in others, faculty members may recommend to the department chair the waiving of certain course prerequisites (when it has been demonstrated that the student already has these competencies). Students who are undecided about a major may seek advisement through the Academic Advising Center in Old Main.

## COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

### Department Chairs

Dr. Todd Koetje  
Dr. Steven Woods  
Dr. Kimberly A. Peters  
Dr. Kathryn Vulic  
Dr. Keith C. Russell  
Dr. Kevin Leonard  
Jennifer Keller  
Dr. Kimberly Lynn  
Dr. María Paredes Méndez  
Dr. Ryan Wasserman  
Dr. Amir Abedi  
Dr. Larry Symons  
Dr. Mick Cunningham

Anthropology  
Communication Studies  
Communication Sciences and Disorders  
English  
Health and Human Development  
History  
Journalism  
Liberal Studies  
Modern & Classical Languages  
Philosophy  
Political Science  
Psychology  
Sociology

### Other College Information

### Departments, Courses and Programs

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online Timetable of Classes, and Extended Education bulletins.

# Anthropology

## Introduction

The discipline of anthropology studies humans in all the cultures of the world, both past and present. This includes humanity's physical development and the wide diversity of lifestyles people have created.

Anthropology has three main goals: first, providing a deep understanding of humans, both past and present; second, analyzing and organizing the knowledge gained and making it accessible; and third, engaging in the practical application of anthropology to various areas of contemporary human behavior.

Anthropology is a social science. It shares techniques and methods with other behavioral sciences and also draws upon physical and biological sciences.

Anthropology is unique among the social and behavioral sciences. Anthropologists obtain data primarily from field research and comparative cross-cultural studies in time and space. Thus, anthropology provides theoretical and empirical bases for development of hypotheses about human behavior, and for testing the breadth and application of such hypotheses.

The anthropology department provides training in each of the four main subdisciplines of anthropology.

**Cultural anthropology** seeks to understand and describe each culture in its own perspective. Cultural anthropologists gather data through first-hand field study in other cultures and do cross-cultural comparative studies which provide crucial insights and understanding of the modes and patterns of human life.

**Archaeology** uses scientific field work and laboratory techniques to investigate past human societies and the processes and effects of cultural evolution through the study of material remains.

**Physical anthropology** focuses on anatomical, physiological and genetic differences in past and contemporary human populations, and analyzes their evolutionary and cultural implications.

**Anthropological linguistics** studies the interrelationships between human culture and language with special focus on unwritten languages, the diversity of world languages, nonverbal human communication, and contemporary cultural linguistic interactions.

Utilizing ethnographic, ethnological and ethnohistorical tools, as well as information supplied by these four subdisciplines, the anthropologist comparatively studies cultures and the processes of human development. These findings have many practical uses.

## Faculty

**TODD A. KOETJE** (1997) Chair and Associate Professor. BA, University of Washington; MA, State University of New York, Binghamton; PhD, University of Tennessee.

**DANIEL L. BOXBERGER** (1983) Professor. BA, The Evergreen State College; MA, Western Washington University; PhD, University of British Columbia.

**SEAN BRUNA** (2013) Assistant Professor. BA, University of Chicago; MA, University of Chicago; MA, University of New Mexico; PhD, University of New Mexico.

**SARAH K. CAMPBELL** (1988) Professor. BA, Indiana University; MA, PhD, University of Washington.

**JOSHUA FISHER** (2010) Assistant Professor. BA, Bucknell University; MA, University of Oregon.

**JOYCE D. HAMMOND** (1984) Professor. BA, MA, Brown University; PhD, University of Illinois.

**JAMES LOUCKY** (1989) Professor. BA, Haverford College; MA, PhD, University of California, Los Angeles.

**ROBERT C. MARSHALL** (1985) Professor Emeritus. BA, Youngstown State University; PhD, University of Pittsburgh.

**M.J. MOSHER** (2010) Assistant Professor. BS, Metropolitan State University; MA, University of Colorado at Denver; PhD, University of Kansas

**JUDITH M.S. PINE** (2008) Associate Professor, BA Kansas State University, MA, PhD, University of Washington

**JOAN C. STEVENSON** (1979) Professor. BA, University of Washington; MA, PhD, University of Wisconsin-Milwaukee.

**KATHLEEN YOUNG** (1996) Associate Professor. BA, MA, Western Washington University; PhD, Simon Fraser University.

**YEON YU** (2014) Assistant Professor. BA, Olivet College; MA, University of Southern California.

The department's faculty and staff invite questions about the program and its career potential. Persons seeking more information should visit the department in Arntzen Hall or call 360-650-3620. Written inquiries should be directed to the Department of Anthropology, Western Washington University, Bellingham, WA 98225-9083. The department website is <https://chss.wvu.edu/anthropology>.

## Declaration Process

Students are eligible to declare the anthropology major if they have successfully completed any one of the following core courses: ANTH 301, 303, 335.

Students are advised to declare their major early in their academic career. Transfer students should declare after completion of one of the core courses listed above. Upper-division courses are restricted to declared majors during the first three days of registration and some courses may be available to majors only. Transfers and freshmen who are interested in the anthropology/biology major should seek advisement as soon as possible. Anthropology/biology BA or BS majors need to begin the chemistry/biology sequences required prior to declaring the major. This will assist them in shortening considerably the many quarters necessary for the anthropology/biology major.

## Other Departmental Information

### Resources

Opportunities for field work and library research in each of the four subfields of anthropology are available. Archaeological field school surveys are conducted alternate summers. The department engages in a series of funded projects, providing a wide diversity of research opportunities. Library holdings include resources for those pursuing cross-cultural and culture area research.

Degrees offered are the BA and the BA in Education. In addition a combined anthropology/biology BA or BS major is offered.

Careers for graduates in anthropology lie in both the public and private sectors of the economy and are increasing. Opportunities may be found in teaching (public school, community college and college), federal and state agencies, social services, applied health settings, museums and international business.

Mid-Program Checkpoint

## Bachelor of Arts

### Anthropology — Archaeology Concentration, BA

Department of Anthropology, College of Humanities and Social Sciences

### 80 Credits

### Introduction

Students seeking to complete a BA degree in anthropology within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- ANTH 201
- ANTH 210
- ANTH 215

Students seeking to complete a BA degree in anthropology with an archaeology concentration within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- ANTH 201
- ANTH 210
- ANTH 215
- and prerequisites for supporting courses in sciences.

Students seeking to complete a BA or BS degree in biology/anthropology (human biology emphasis) within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- ANTH 201
- ANTH 210
- ANTH 215
- BIOL 204
- BIOL 205
- BIOL 206
- One of the following sequences:
  - CHEM 121
  - CHEM 123
  - CHEM 122
  - or
  - CHEM 125
  - CHEM 126
  - CHEM 225
- Physics and calculus

# ANTHROPOLOGY

Anthropology explores what it means to be human. Anthropology is the scientific study of humankind in all the cultures of the world, past and present. This study includes humankind's physical development and creation of diverse lifestyles. The cross-cultural approach of Anthropology provides a framework for understanding all the diverse facets of what it means to be human.

## Why Consider an Archaeology Concentration in Anthropology Major?

Archaeology is the "cultural anthropology" of the human past. It uses scientific field work and laboratory techniques to investigate past human societies and the processes and effects of cultural evolution through the study of material remains. The Anthropology Department has a small, but growing program in archaeology. Our program is active in regional prehistoric and historic archaeology. Both undergraduate and graduate students' participation in fieldwork is encouraged, and necessary if one is to enter the field professionally. Unlike some professions, archaeology can be entered on some levels with a B.A. degree, although M.A. and Ph.D. work offer greater opportunities.

### Contact Information

**Department Chair**

Todd Koetje  
Arntzen Hall 334  
360-650-4791  
Todd.Koetje@wwu.edu

**Departmental Advisors:****Archaeology Advisor**

Sarah Campbell  
Arntzen Hall 342  
360-650-4793  
Sarah.Campbell@wwu.edu

**Archaeology Advisor**

Todd Koetje  
Arntzen Hall 334  
360-650-4791

**Anthropology Office**

Arntzen Hall 315  
360-650-3620

### Sample Careers

International Studies | Ethnologist | Museum Curator | Overseas Consultant | Researcher | Archaeologist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

- ANTH 301 or ANTH 303 or ANTH 335

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 247 - Introduction to Linguistic Anthropology (LING 201 or LING 204 or ENG 370 may be substituted)
- ANTH 301 - Anthropological Theory
- ANTH 312 - Field Course in Archaeology or equivalent field experience recommended
- ANTH 335 - Quantitative Methods in Anthropology or another basic statistics course under advisement
- ANTH 496 - Portfolio Assembly
- One course from:



- ANTH 330 - Religion and Culture
  - ANTH 338 - Economic Anthropology
  - ANTH 350 - The Ecology of Human Variation
  - ANTH 351 - Family and Kinship Organization
  - ANTH 353 - Sex and Gender in Culture
  - ANTH 424 - Medical Anthropology
  - ANTH 440 - Cyborg Anthropology
  - ANTH 453 - Women of the Global South
  - ANTH 475 - Global Migration
  - ANTH 481 - Childhood and Culture
  - ANTH 484 - Intercultural Education
  - One course from:
    - ANTH 361 - Native Peoples of North America
    - ANTH 362 - Peoples of Asia
    - ANTH 365 - Peoples of Latin America
    - ANTH 462 - Native Peoples of the Northwest
    - ANTH 463 - Peoples of East and Southeast Asia
    - ANTH 465 - Peoples of Mexico and Central America
    - ANTH 476 - Borderlands
  - Two courses from:
    - ANTH 308 - Hunter-Gatherer Societies in World Prehistory
    - ANTH 310 - The Rise of Civilizations
    - ANTH 314 - Archaeology of North America
  - Two courses from:
    - ANTH 406 - Archaeological Method and Theory
    - ANTH 410 - Archaeological Analysis and Interpretation
    - ANTH 411 - Archaeology of Northwestern North America
    - ANTH 428 - Cultural Resource Management
  - Two courses from:
    - ANTH 420 - Human Osteology and Forensic Anthropology
    - ANTH 422 - Nutritional Anthropology
    - ANTH 470 - Museology Studies
  - 12 credits of supporting courses in sciences, history or mathematics selected under advisement.
- Strongly recommended courses include:
- ENVS 220 - Map Reading and Analysis
  - ENVS 321 - GIS II: Computer Cartography
  - ENVS 422 - Advanced Spatial Analysis
  - ENVS 427 - Soil Landscapes
  - GEOL 310 - Geomorphology
  - GEOL 316 - Research in Marine Paleontology
  - GEOL 413 - Fluvial Geomorphology
  - GEOL 415 - Sedimentology and Stratigraphy
- Elective credits in anthropology
    - NOTE: only one 100-level course will count towards this major.

## Anthropology — Biocultural Concentration, BA

Department of Anthropology, College of Humanities and Social Sciences

### 95-98 Credits

#### Introduction

Anthropology explores what it means to be human. Anthropology is the scientific study of humankind in all the cultures of the world, past and present. This study includes humankind's physical development and creation of diverse lifestyles. The cross-cultural approach of Anthropology provides a framework for understanding all the diverse facets of what it means to be human.

# ANTHROPOLOGY

## Why Consider a Biocultural Concentration in the Anthropology Major?

The Biocultural Anthropology Concentration is the most flexible of the biology anthropology combined majors and allows for students to gain a broad interdisciplinary training relevant for many of the professions confronting the challenges of modern society. Students can supplement their studies with related coursework from other departments given the requirements of specific training or post-baccalaureate programs.

Contact Information		
<b>Anthropology Department Chair</b> Todd Koetje Arntzen Hall 334 360-650-4791 Todd.Koetje@wwu.edu	<b>Anthropology Office</b> Arntzen Hall 315 360-650-3620	
<b>Anthropology Undergraduate Advisor</b> Joan Stevenson Arntzen Hall 316 360-650-4787 Joan.Stevenson@wwu.edu	<b>Anthropology Undergraduate Advisor</b> MJ Mosher Arntzen Hall 324 360-650-3614 M.J.Mosher@wwu.edu	<b>Anthropology Undergraduate Advisor</b> Robert Marshall Arntzen Hall 344 360-650-4785 Robert.Marshall@wwu.edu

**Sample Careers**  
Physical Anthropologist | Archaeologist | Cultural Anthropologist | Anthropological Linguist | Forensic Anthropologist | Applied Health | Medical fields

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

To declare, a student must have completed any one of the following core courses:

- ANTH 301 or ANTH 303 or ANTH 335

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 247 - Introduction to Linguistic Anthropology (LING 201 or LING 204 or ENG 370 may be substituted)
- ANTH 301 - Anthropological Theory
- ANTH 303 - Qualitative Methods in Anthropology (optional)
- ANTH 335 - Quantitative Methods in Anthropology
- ANTH 350 - The Ecology of Human Variation
- ANTH 424 - Medical Anthropology
- ANTH 490 - Senior Seminar in Anthropology (optional)
- ANTH 496 - Portfolio Assembly
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology

- BIOL 348 - Human Anatomy and Physiology
- BIOL 349 - Human Physiology
- Two courses from:
  - ANTH 361 - Native Peoples of North America
  - ANTH 362 - Peoples of Asia
  - ANTH 365 - Peoples of Latin America
  - ANTH 422 - Nutritional Anthropology
  - ANTH 423 - Human Evolution
  - ANTH 457 - The Anthropology of Death and Dying
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 463 - Peoples of East and Southeast Asia
  - ANTH 465 - Peoples of Mexico and Central America
  - ANTH 476 - Borderlands
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or all three of the following:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 353 - Organic Chemistry

Students are encouraged to further specialize according to their interests by pursuing appropriate course sequences and/or minors outside of the anthropology department, e.g., mathematics with an emphasis on statistics if pursuing epidemiology. Please confer with your advisor to tailor your training to meet your post-baccalaureate plans.

Program advisors: Joan Stevenson and MJ Mosher

## Anthropology, BA

Department of Anthropology, College of Humanities and Social Sciences

### 65 Credits

#### Introduction

Anthropology explores what it means to be human. Anthropology is the scientific study of humankind in all the cultures of the world, past and present. This study includes humankind's physical development and creation of diverse lifestyles. The cross-cultural approach of Anthropology provides a framework for understanding all the diverse facets of what it means to be human.

The Anthropology Department provides training in four sub-disciplines: Cultural Anthropology, Archaeology, Physical Anthropology and Anthropological Linguistics. Using ethnographic, ethnological and ethnohistorical tools and information supplied by the four sub disciplines, the Anthropologist studies cultures and the processes of human development comparatively.

#### Why Consider an Anthropology Major?

Do you find human diversity and various cultures fascinating? Do you like to approach subjects from multiple perspectives? Do you prefer a holistic style of learning? Do you want to know why as well as how? Are you fascinated by human diversity? Are you enthusiastic, intelligent, and open-minded? If so, you may wish to consider a major in Anthropology. Students earning a degree in Anthropology will be able to apply their learning to a variety of jobs locally and internationally in the global economy of today's world.

# ANTHROPOLOGY

## Contact Information

### Department Chair

Todd Koetje  
Arntzen Hall 334  
360-650-4791  
Todd.Koetje@wwu.edu

### Major Information

Anthropology Office  
Arntzen Hall 315  
360-650-3620

## Sample Careers

International Studies | Law Enforcement | Ethnologist | Diplomacy | Museum Curator | Overseas Consultant | Linguist | Education | Researcher | Translator | Archaeologist | International Business | Politics | Governmental Advisor | Cultural Diversity Programs | Human Resources | Social Services

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

- ANTH 301 or ANTH 303 or ANTH 335

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 247 - Introduction to Linguistic Anthropology (LING 201 or LING 204 or ENG 370 may be substituted)
- ANTH 301 - Anthropological Theory
- ANTH 303 - Qualitative Methods in Anthropology
- ANTH 335 - Quantitative Methods in Anthropology or another basic statistics course under advisement
- ANTH 490 - Senior Seminar in Anthropology or other culminating project under advisement (e.g., internship or directed independent study)
- ANTH 496 - Portfolio Assembly
- Methods Component: At least one course from the following:
  - ANTH 410 - Archaeological Analysis and Interpretation
  - ANTH 420 - Human Osteology and Forensic Anthropology
  - ANTH 428 - Cultural Resource Management
  - ANTH 447 - Anthropological Semiotics
  - ANTH 454 - Participatory Action Research Methods
  - ANTH 470 - Museology Studies
  - ANTH 471 - Field Work Methods in Cultural Anthropology
  - ANTH 472 - Visual Anthropology
  - ANTH 473 - Field Course in Ethnography
  - ANTH 480 - Applied Anthropology
  - (where appropriate an internship, practicum or archaeological methods course may be substituted under advisement)
- Topical Component: At least one course from the following:
  - ANTH 330 - Religion and Culture
  - ANTH 338 - Economic Anthropology
  - ANTH 350 - The Ecology of Human Variation

- ANTH 351 - Family and Kinship Organization
- ANTH 353 - Sex and Gender in Culture
- ANTH 424 - Medical Anthropology
- ANTH 440 - Cyborg Anthropology
- ANTH 453 - Women of the Global South
- ANTH 475 - Global Migration
- ANTH 481 - Childhood and Culture
- ANTH 484 - Intercultural Education
- Culture Region Component: At least one course from the following:
  - ANTH 361 - Native Peoples of North America
  - ANTH 362 - Peoples of Asia
  - ANTH 365 - Peoples of Latin America
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 463 - Peoples of East and Southeast Asia
  - ANTH 465 - Peoples of Mexico and Central America
  - ANTH 476 - Borderlands
- Electives in anthropology under departmental advisement. Student selection of a complementary minor under advisement is strongly recommended.
- Only one 100-level course will count toward major, minor or archaeology concentration

## Anthropology/Biology, BA

Combined major offered by the Department of Anthropology, College of Humanities and Social Sciences and the Department of Biology, College of Science and Engineering.

**89 credits**

### Introduction

Biological or Physical Anthropology is the study of both present and past human variation relative to local ecologies and cultures. Biological Anthropologists specialize in Human or Primate Anatomy, Genetics, Disease Ecology, Growth and Development, Forensic Anthropology and Osteology, Medical Anthropology or Primate Behavior and Primatology.

### Why Consider an Anthropology/Biology Major?

The Biology/Anthropology major is a concentration on Human Biology and Behavioral Science. This major is more flexible than the Biology/Anthropology B.S. but is also excellent preparation for the applied health careers and graduate programs in Biological or Physical Anthropology. Check the course requirements for your postgraduate applied health programs to make sure you take all the appropriate prerequisites.

Contact Information		
<b>Anthropology Program Advisor</b> Joan Stevenson Arntzen Hall 316 360-650-4787 Joan.Stevenson@wwu.edu	<b>Biology Program Advisor</b> Jose Serrano-Moreno Biology 331 360-650-3633 Jose.Serrano-Moreno@wwu.edu	<b>Biology Program Coordinators for Advising</b> Maren Brinson and Keeley Mathews Biology 315 360-650-6165 biologyadvising@wwu.edu
<b>Anthropology Program Advisor</b> MJ Mosher Arntzen Hall 324 360-650-3614 M.J.Mosher@wwu.edu		
Sample Careers		
Applied Health Tracks   Physical Anthropology   Graduate Programs		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

# ANTHROPOLOGY

## How to Declare (Admission and Declaration Process):

Declare your Anthropology/Biology major as soon as you discover you are interested. Contact the Anthropology department and Maren Brinson in the Biology Department Office, BI 315 for details. Freshmen, your first quarter is not too soon!

This degree has a two-step process for admission. Phase I students are students who have declared their intent to major in biology, and are in the process of completing the introductory biology and general chemistry series. Admission to Phase II is based on academic performance in the introductory courses. Students must have achieved an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Consult Department advisors in Biology and Anthropology as early as possible. Early advisement will ensure appropriateness and proper sequencing of courses. Anthropology/Biology BA majors need to begin the chemistry/biology sequences required prior to declaring the major. This will assist them in shortening considerably the many quarters necessary for the anthropology/biology major.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 496 - Portfolio Assembly
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 348 - Human Anatomy and Physiology
- BIOL 349 - Human Physiology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry IIIOR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - CHEM 251 - Elementary Organic Chemistryor all three of the following:
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - CHEM 353 - Organic Chemistry
- One course from:
  - PHYS 101 - Physics Analysis
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II (recommended)
- One course from:
  - ANTH 335 - Quantitative Methods in Anthropology
  - BIOL 340 - Biometrics
  - MATH 240 - Introduction to Statistics
- 10 credits in anthropology under advisement
  - ANTH 308 - Hunter-Gatherer Societies in World Prehistory
  - ANTH 422 - Nutritional Anthropology
  - ANTH 424 - Medical Anthropology

- 8 credits of biology under advisement
  - BIOL 322 - Genetics Lab
  - BIOL 323 - Cell and Molecular Biology
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 345 - Fundamentals of Microbiology
  - BIOL 410 - Animal Behavior
  - BIOL 465 - Vertebrate Zoology
  - BIOL 467 - Comparative Vertebrate Physiology

## Anthropology/Social Studies, BA

Department of Anthropology, College of Humanities and Social Sciences.

### 87-91 Credits

#### Introduction

Anthropology explores what it means to be human and encompass the scientific study of diversity as well as similarities of all cultures of the world, past as well as present. Its scope includes human physical development, adaptation to vastly different environments, and creative expressions of meaning and belonging. The cross-cultural approach of Anthropology provides an inclusive and holistic framework for understanding all facets of humanity.

The Anthropology Department provides training in four sub-disciplines: Cultural Anthropology, Archaeology, Physical Anthropology and Anthropological Linguistics. Using ethnographic, comparative and ethnohistorical methods and working in partnerships with communities and peoples worldwide, anthropologists contribute in multiple ways to addressing contemporary human problems and highlighting evidence that points to both past and potential solutions.

#### Why Consider an Anthropology/Social Studies Major?

Do you find human diversity and various cultures fascinating? Do you appreciate the benefits of examining topics from multiple perspectives and value a holistic approach to learning? Do you prefer a holistic style of learning? Do you want to know why as well as how? Are you fascinated by human diversity? Are you enthusiastic and open-minded? If you are also excited about transmitting that enthusiasm and understanding to others, a major in Anthropology/Social Studies may be for you. Students earning a degree in Anthropology/Social Studies will be able to apply their knowledge and experience to a variety of careers locally and globally, particularly in settings for learning and teaching such as schools and learning across the life span.

To receive a recommendation for state of Washington certification, students must complete the teacher certification program, including the content methods course SEC 426, offered by the Department of Secondary Education, as a part of the undergraduate Bachelor of Arts degree, or as a post-baccalaureate program, or as a part of the Master's in Teaching degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Completion of this combined major leads to an endorsement in social studies.

Contact Information		
<b>Anthropology Department Chair</b> Todd Koetje Arntzen Hall 334 360-650-4791 Todd.Koetje@wwu.edu	<b>Anthropology Office</b> Arntzen Hall 315 360-650-3620	<b>Anthropology/Social Studies Advisor</b> Dr. James Loucky Arntzen Hall 322 360-650-3615 James.Loucky@wwu.edu
<b>Secondary Education Information</b> Janna Cecka Miller Hall 401C 360-650-3347 wce.wwu.edu/sec/secondary-education	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 wce.wwu.edu/admissions/secondary-education	

# ANTHROPOLOGY

## Sample Careers

Teacher | Education | Attorney | Researcher | Politician | Governmental Advisor | Diplomacy | Human Services

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 496 - Portfolio Assembly
- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - ANTH 481 - Childhood and Culture
  - ANTH 484 - Intercultural Education
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)
- One course from:
  - ECON 207 - Introduction to Macroeconomics
  - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
- One of the following:
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 220 - Map Reading and Analysis
  - ENVS 221 - Geographic Information Science Survey
  - ENVS 240 - Geography and World Affairs
  - ENVS 320 - GIS I: Introduction to Geographic Information Science
  - ENVS 342 - Geography of the World Economy
  - ENVS 343 - Urbanization: Processes and Patterns
- Electives under departmental advisement — at least one course from each of the following groups:
  - Cultural area courses:
    - ANTH 361 - Native Peoples of North America
    - ANTH 362 - Peoples of Asia
    - ANTH 365 - Peoples of Latin America
    - ANTH 462 - Native Peoples of the Northwest
    - ANTH 463 - Peoples of East and Southeast Asia
    - ANTH 465 - Peoples of Mexico and Central America
    - ANTH 476 - Borderlands
  - Topical cultural anthropology courses:
    - ANTH 247 - Introduction to Linguistic Anthropology



- ANTH 330 - Religion and Culture
- ANTH 338 - Economic Anthropology
- ANTH 351 - Family and Kinship Organization
- ANTH 353 - Sex and Gender in Culture
- ANTH 424 - Medical Anthropology
- ANTH 453 - Women of the Global South
- ANTH 475 - Global Migration
- ANTH 480 - Applied Anthropology

## Bachelor of Arts in Education

### Anthropology — Elementary, BAE

Department of Anthropology, College of Humanities and Social Sciences

#### 45 Credits

#### Introduction

The Anthropology Department offers a combined major in accordance with the Woodring College of Education requirements. Anthropology is particularly valuable for teachers, because it provides a broad understanding of human behavior. Teachers often work with students of various cultural backgrounds and an awareness of specific cultural learning influences, attitudes, motivations, and patterns of interaction is an integral part of working effectively and respectfully in diverse communities. This is the basis of the core subjects in cultural anthropology.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

#### Why Consider an Anthropology Elementary Major?

Through the required basic courses in Anthropology, education majors will acquire an understanding of the nature of human beings, the evolution of the human species and the tremendous variation of cultural traits that are both our heritage and potential. Through faculty advisement, prospective students will be informed of advanced coursework that are beneficial combinations to complete individual academic goals. One possible emphasis is the culture of the Native American Indians--a subject that most elementary teacher cover at some point in their curriculum. Another emphasis may be cultural minority groups in the Pacific Northwest. The relationship of cultural learning to personality development and the relationship of cultural expectations to the learning process itself are other important areas covered by courses which may be taken as part of the Anthropology Education Major.

Contact Information		
<b>Anthropology Department Chair</b> Todd Koetje Arntzen Hall 334 360-650-4791 Todd.Koetje@wwu.edu	<b>Anthropology Undergraduate Advisor</b> James Loucky Arntzen Hall 322 360-650-3615 James.Loucky@wwu.edu	<b>Anthropology Office</b> Arntzen Hall 315 360-650-3620
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wwu.edu/eled/elementary-education">https://wce.wwu.edu/eled/elementary-education</a>	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948
Sample Careers		
Actuary   Financial Planner/Analyst   Government   Investment Banker   Budget Analyst   Banking Securities   Financial Economist   Business Forecaster		
Major/Career Resources		

# ANTHROPOLOGY

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

## Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 496 - Portfolio Assembly
- One course from:
  - ANTH 481 - Childhood and Culture
  - ANTH 484 - Intercultural Education
- Electives under departmental advisement. Select one course from each of the following groups:
  - Cultural area courses:
    - ANTH 361 - Native Peoples of North America
    - ANTH 362 - Peoples of Asia
    - ANTH 365 - Peoples of Latin America
    - ANTH 462 - Native Peoples of the Northwest
    - ANTH 463 - Peoples of East and Southeast Asia
    - ANTH 465 - Peoples of Mexico and Central America
    - ANTH 476 - Borderlands
  - Topical cultural anthropology courses:
    - ANTH 247 - Introduction to Linguistic Anthropology
    - ANTH 330 - Religion and Culture
    - ANTH 351 - Family and Kinship Organization
    - ANTH 353 - Sex and Gender in Culture
    - ANTH 424 - Medical Anthropology
    - ANTH 453 - Women of the Global South
    - ANTH 475 - Global Migration
    - ANTH 480 - Applied Anthropology

## Additional Requirements

## Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

## Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

## Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Bachelor of Science

### Biology/Anthropology, BS (see Biology Department)

Biology/Anthropology, BS (see Biology Department)

## Master of Arts

### Anthropology, Thesis, MA

College of Humanities and Social Sciences

#### Graduate Faculty

**Bruna, Sean**, PhD, sovereignty, applied anthropology, medical anthropology, chronic disease prevention, community based participatory research (CBPR) Native North America, U.S. Southwest.

**Boxberger, Daniel L.**, PhD, ethnohistory, method and theory, indigenous rights, Native North America, Northwest coast.

**Campbell, Sarah**, PhD, Pacific Northwest prehistory, archaeological method and theory, cultural resource management.

**Hammond, Joyce D.**, PhD, visual anthropology, gender studies, expressive culture, fieldwork methods, and Pacific Asian Rim tourism.

**Koetje, Todd A.**, PhD, archaeology, quantitative methods, spatial studies, method and theory, paleolithic Old World, paleoindian-archaic Northeast U.S.

**Loucky, James**, PhD, applied anthropology, socialization, immigration, cross-cultural education, Latin America.

**Marshall, Robert C.**, PhD, political economy, symbolism, Marxist anthropology, East Asia, Japan.

**M. J. Mosher**, PhD, anthropological genetics, epigenetics, nutrition, adipokines, human variation and adaptation, Arctic Populations.

**Pine, Judith**, PhD, linguistic anthropology, literacy theory, indigenoussness, globalization/borders, language maintenance/endorgerment, upland peoples of SE Asia/SW China.

**Stevenson, Joan**, PhD, anthropological genetics and demography, osteology, AD/HD, sex differences, European immigrants.

**Young, Kathleen**, PhD, gender, religion, war and violence, death and dying, cross-cultural law.

Program Advisor: Dr. Sarah Campbell, Arntzen Hall 342

#### Goals

- Provide structured training in academic core, appropriate specialization courses, and experience conducting independent research
- Prepare students for a variety of professional careers utilizing anthropology (e.g. social services, international corporations, cultural resource management, forensics, public health)
- Prepare students for PhD programs or other advanced degrees.

#### Prerequisites

Undergraduate major in anthropology or related field such as human biology, linguistics, classical studies, history, women's studies, sociology and other social sciences. Applicants with insufficient background in theory, quantitative or qualitative methods relevant to their field of study may be required to take undergraduate classes before entering the program. Applicants are directed to the current course requirements in the appropriate undergraduate anthropology major for an indication of the preparation expected.

#### Application Information

**Deadline:** Please see Graduate School deadlines. Preferred consideration for admission will be given to applicants who have complete files by March 1.

**TA Deadline:** Preferred consideration will be given to applicants who have complete files by March 1.

#### Specific Entrance and Test Requirements

- A 500-word essay stating reasons for wanting to do graduate work in anthropology, and indicating major interests within anthropology

- Graduate Record Exam, General Test

Both the essay and the GRE are required for admission, but the GRE may be waived for applicants with advanced degrees.

### Program Requirements (45 credits)

- One course from the following: ANTH 501, ANTH 506, ANTH 525 or ANTH 547
- ANTH 502 - Theory in Anthropological Research
- ANTH 503 - Research Design and Method
- ANTH 585 - Essentials of Graduate Study in Anthropology
- ANTH 586 - Research Mentorship (Minimum of 3 credits)
- ANTH 690 - Thesis (3-12)
- Electives in specialization: Courses selected under advisement from 400 or 500 level courses in anthropology.

### Course Electives:

ANTH 456 - Anthropology of War and Human Rights  
 ANTH 457 - The Anthropology of Death and Dying  
 ANTH 462 - Native Peoples of the Northwest  
 ANTH 470 - Museology Studies  
 ANTH 473 - Field Course in Ethnography  
 ANTH 475 - Global Migration  
 ANTH 484 - Intercultural Education  
 ANTH 501 - History of Anthropology  
 ANTH 506 - Archaeological Method and Theory  
 ANTH 510 - Applied Archaeological Analysis and Interpretation  
 ANTH 511 - Current Archaeological Research in Northwestern North America  
 ANTH 515 - Practicum in Archaeological Spatial Analysis  
 ANTH 520 - Human Osteology  
 ANTH 522 - Nutritional Anthropology  
 ANTH 524 - Applied Medical Anthropology  
 ANTH 525 - Primate Evolution  
 ANTH 528 - Applied Cultural Resource Management  
 ANTH 547 - Semiotic Anthropology  
 ANTH 553 - Women of the Global South  
 ANTH 554 - Participatory Action Research Methods  
 ANTH 563 - Peoples of East and Southeast Asia  
 ANTH 565 - Peoples of Mexico & Central America  
 ANTH 571 - Field Work Methods in Cultural Anthropology  
 ANTH 572 - Visual Anthropology  
 ANTH 576 - Borderlands  
 ANTH 580 - Applied Anthropology  
 ANTH 581 - Childhood and Culture

**NOTE:** Three credits of ANTH 690 are required. Not more than 12 credits of 690 will apply toward the 45-credit requirement for the degree.

**NOTE:** No more than 10 credits of 400 level courses can be applied to the graduate degree. At least 35 credits must be from courses at the 500 or 600 (thesis) level.

**Supporting Courses:** Where appropriate to the student's specialty interests, the candidate may elect up to 15 credits from a related discipline, under Anthropology Graduate Committee advisement (0-15). Advancement to candidacy is granted upon successful completion of 15 credits.

## Minor

### Anthropology Minor

Department of Anthropology, College of Humanities and Social Sciences

# ANTHROPOLOGY

25 credits

<b>Contact Information</b>	
<b>Department Chair</b> Todd Koetje Arntzen Hall 334 360-650-4791 Todd.Koetje@wwu.edu	<b>Minor Information:</b> <b>Academic Department Manager</b> Anthropology Office Arntzen Hall 315 360-650-3620
<b>Major/Career Resources</b> <a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- One course from:
  - ANTH 102 - Introduction to Human Origins
  - ANTH 210 - Introduction to Archaeology
  - ANTH 215 - Introductory Biological Anthropology
- Electives in anthropology to complete 25 credits for the minor.  
NOTE: Only one 100-level course will count towards the Anthropology Minor.

## Latin American Studies Minor (see History Department)

Latin American Studies Minor (see History Department)

## Anthropology Courses

### ANTH 102 - Introduction to Human Origins

Description of scientific evidence for the evolution of the human lineage from its primitive primate ancestors to the origins of civilization. Emphasis on analytical methods employed to reconstruct history from fossils, geological context and cultural remains.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### ANTH 104 - American Mosaic: The Cultures of the United States

The study of the cultures of the United States from the perspectives of ethnicity, race, gender and class. Special emphasis on anthropological methods and approaches to enhance understanding of contemporary socio-cultural lifeways.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### ANTH 201 - Introduction to Cultural Anthropology

Introduction to the concepts, methods and practical application of cultural anthropology. The focus is on explanations for social and cultural variation around the world and over time and the significance of holistic and comparative understanding.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### ANTH 210 - Introduction to Archaeology

The historical roots and current goals of archaeology. Principles of archaeological inference, including formation of the archaeological record, data collection and analysis, and interpretive frameworks.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### ANTH 215 - Introductory Biological Anthropology

The biological side of anthropology; human

osteology, primate paleontology, human variation, human evolution and primate behavior.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

### **ANTH 247 - Introduction to Linguistic Anthropology**

The study of language from an anthropological perspective. Includes an introduction to the structure and patterning of language, the study of language as it is used in daily life, and the role of language in human evolution.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **ANTH 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ANTH 301 - Anthropological Theory**

The development of anthropological thought from the late 1800s to the present. Emphasis is placed on the major theoretical developments in the discipline.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 303 - Qualitative Methods in Anthropology**

This course will familiarize students with perspectives, methods and techniques of qualitative research in anthropology. The course will cover the theoretical background of qualitative research, major research traditions, methods of data collection, analysis of textual data and the write-up of findings.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 308 - Hunter-Gatherer Societies in World Prehistory**

The archaeological remains of hunting-gathering groups from early hominids to modern times interpreted in terms of evolution of adaptive strategies. Relationship to agriculture as an adaptive strategy; contributions of studies of modern hunter-gatherer groups.

**Prerequisites & Notes:** ANTH 210.  
**Credits:** 4  
**Grade Mode:** Letter

### **ANTH 310 - The Rise of Civilizations**

Village agricultural societies as revealed by archaeology; crystallization of village farming societies into urban civilizations in the Near East, Egypt, India, China and New World parallel developments.

**Prerequisites & Notes:** ANTH 102 or ANTH 210.  
**Credits:** 4  
**Grade Mode:** Letter

### **ANTH 312 - Field Course in Archaeology**

On-site training in methods and techniques of archaeological survey and excavation.

**Prerequisites & Notes:** ANTH 210 or equivalent and permission of instructor.  
**Credits:** 12  
**Grade Mode:** Letter

### **ANTH 314 - Archaeology of North America**

Origins of PaleoIndians of North America, their paleoenvironments and the cultural sequences leading to the historic peoples of the New World north of Panama. Mesoamerican and Mississippian cultures, those of the Southwest and the Woodland Archaic.

**Prerequisites & Notes:** ANTH 210.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 330 - Religion and Culture**

Comparative study of religious thought, belief and behavior; relationship of religious experience and institutions to other aspects of culture and society.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 335 - Quantitative Methods in Anthropology**

Mathematics and statistics as applied to anthropological problems.

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**Prerequisites & Notes:** ANTH 201 or HNRS 203 or ANTH 210 or ANTH 215.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **ANTH 338 - Economic Anthropology**

Examines the relationship between systems of production and culture through four theoretical approaches: formalist, substantivist, Marxist and culturalist. Emphasis on localized consequences of global economic forces. Service learning component required.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or instructor permission

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 347 - The Ethnography of Communication**

Familiarizes students with methods of data collection and analysis used in linguistic anthropology through an examination of both classic and current literature. Examines the complex relationship between language and culture.

**Prerequisites & Notes:** ANTH 247.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 350 - The Ecology of Human Variation**

Examines global contemporary sociopolitical, health and related environmental issues with an evolutionary perspective that emphasizes changes in human physiology, development, and the genome and epigenome relative to local ecology (disease, diet, demography) and cultural adaptations.

**Prerequisites & Notes:** ANTH 215; One from: ANTH 201, ANTH 210, HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 351 - Family and Kinship Organization**

Cross-cultural study of family types and the definition of social roles through kinship organization.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 353 - Sex and Gender in Culture**

Cross-cultural study of gender stereotypes, gender

and language, gender and work roles, gender and religion.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

## **ANTH 361 - Native Peoples of North America**

Ethnographic survey of the peoples and cultures.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

## **ANTH 362 - Peoples of Asia**

Ethnographic survey of the peoples and cultures.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

## **ANTH 365 - Peoples of Latin America**

Ethnographic survey of the peoples and cultures.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

## **ANTH 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **ANTH 406 - Archaeological Method and Theory**

History of theory and method in North American archaeology and the legacy of earlier goals. Current goals and the development of appropriate theory, method and empirical applications.

**Prerequisites & Notes:** ANTH 210 and ANTH 301.

**Credits:** 5

**Grade Mode:** Letter



**ANTH 410 - Archaeological Analysis and Interpretation**

Archaeological laboratory methods; artifact identification, classification, measurement; map reproduction, soil and feature profiles; use of photographs and other graphic methods.

**Prerequisites & Notes:** ANTH 210 and Junior or Senior status.

**Credits:** 5

**Grade Mode:** Letter

**ANTH 411 - Archaeology of Northwestern North America**

The prehistoric archaeology of the Northwest coast and plateaus; current explorations and interpretations in a context of paleoenvironmental and ethnohistorical evidence.

**Prerequisites & Notes:** ANTH 210 and one of ANTH 310 or ANTH 314 or ANTH 361.

**Credits:** 5

**Grade Mode:** Letter

**ANTH 415 - Archaeological Spatial Analysis**

Focuses on the application of advanced quantitative methods in spatial analysis to specific archaeological contexts and projects. Students will complete a major research project and present it to the class and as a paper.

**Prerequisites & Notes:** ANTH 201 and ANTH 335.

**Credits:** 3

**Grade Mode:** Letter

**ANTH 420 - Human Osteology and Forensic Anthropology**

After learning the human skeleton, the student will be trained in techniques for recovery of the body, reconstruction of the body's history (age, sex, race, etc.) and how to aid the crime investigator.

**Prerequisites & Notes:** ANTH 210 or ANTH 215 or ANTH 335 or ANTH 410 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**ANTH 422 - Nutritional Anthropology**

The study of human nutrition and metabolism from an anthropological perspective. Topics include the structure and function of the digestive system, the chemical composition of nutrients and the regulation by the body of nutrient stores and body composition. Focuses on using a comparative approach to elucidate a naturalistic human diet and

the health consequences when this ideal is not met.

**Prerequisites & Notes:** ANTH 201 or HNRS 203, and ANTH 215 and BIOL 349 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**ANTH 423 - Human Evolution**

First half of seminar covers theory and anatomical changes for hominin species focusing on last 6 million years (that is, Ardipithecus and Australopithecus to present) and second half considers sociocultural evolution (e.g., life history theory, mate choice, evolution of cognition, emotions, language).

**Prerequisites & Notes:** ANTH 102 or ANTH 210 or ANTH 215 and ANTH 301 or ANTH 308 or ANTH 310 or ANTH 350, or junior standing in Biology or Anthropology major, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**ANTH 424 - Medical Anthropology**

Introduction to an area where biological and cultural anthropology interface. Includes health and disease in evolution, the relationships between disease and world view, the healer and the cultural milieu, and comparative studies of healing practices.

**Prerequisites & Notes:** ANTH 201 or HNRS 203, and junior standing or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**ANTH 428 - Cultural Resource Management**

Introduction to the field of cultural resource management including historic preservation, archaeological resource management, cultural resource management for subsistence and spiritual practices. Background on legislation and current practices, review of case studies and experience with actual projects.

**Prerequisites & Notes:** ANTH 210 and junior or senior status or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**ANTH 440 - Cyborg Anthropology**

The cyborg is a life form that is part human and part machine. This course examines the shifting conceptual and physical boundaries between humans and their techno-scientific creations through theoretical works, ethnographic accounts

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and popular cultural artifacts such as film.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 447 - Anthropological Semiotics**

Myth, metaphor and media offer the material for this exploration of theories which offer insight into the relationship between language and mind.

**Prerequisites & Notes:** ANTH 347 and junior or senior status or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 453 - Women of the Global South**

Explores women's economic, religious, political and familial roles through topics such as development and globalization, violence, and women's movements. Student contributions to course topics emphasized through individual papers and group panel work.

**Prerequisites & Notes:** ANTH 301 and ANTH 353 and junior or senior status or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 454 - Participatory Action Research Methods**

Participatory Action Research is a methodology of researching, analyzing, and carrying out actions that directly benefit members (stakeholders) of a community. As a form of applied anthropology, PAR is a method that emphasizes working in collaboration with others to develop research questions, conduct research, analyze findings, present results, and create actions. In this course, students will work with identified community organizations and groups who are interested in the PAR methodology.

**Prerequisites & Notes:** ANTH 303 or ANTH 471 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 456 - Anthropology of War and Human Rights**

The course focuses on emic and etic perspectives of war and human rights. Investigates cultural relativism and anthropology with regard to war and violence. Cultural constructions of war and definitions of human rights are fundamental to an understanding of what it means to be human.

**Prerequisites & Notes:** ANTH 301 and junior or senior status.

**Credits:** 4

**Grade Mode:** Letter

### **ANTH 457 - The Anthropology of Death and Dying**

The course considers death and dying anthropologically as cultural constructs. The course explores a wide range of cultures from a variety of interdisciplinary and interactive perspectives in order to further our understanding of what it means to be human. Studies death and dying in order to broaden our understanding of the human cultural experience. Field trips required.

**Prerequisites & Notes:** ANTH 301 and junior or senior status.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 462 - Native Peoples of the Northwest**

Tribal distributions, social organization and ecological adaptation and social change with emphasis on the Native peoples of Washington state.

**Prerequisites & Notes:** ANTH 361

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 463 - Peoples of East and Southeast Asia**

An ethnographic in-depth study of the national and minority peoples of China, mainland and insular Southeast Asia. Emphasis on special topics, including ecology, prehistory and selected cultural groups. Readings focus on original monographs.

**Prerequisites & Notes:** ANTH 362 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 465 - Peoples of Mexico and Central America**

Overview of cultures and social relations in Mesoamerica, with an emphasis on indigenous and rural communities, subsistence and survival issues, and factors underlying political and economic change.

**Prerequisites & Notes:** ANTH 365 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 469 - Directed Internship**

Application of anthropological methods and theory in an applied setting. Interns work at least 10 hours per week at the work site, in the type of work specified in the internship contract. In addition students complete several written assignments, Repeatable to a maximum of 15 credits. No more than 10 credits in internship may be counted toward the major.

**Prerequisites & Notes:** permission of instructor.  
**Credits:** 5-10  
**Grade Mode:** Letter

#### **ANTH 470 - Museology Studies**

Internship at the Whatcom Museum of History and Art or other local museums. Students may select an area of museum specialization in most cases; essay questions and a paper are also required. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** ANTH 301 and junior or senior, or permission of faculty liaison.  
**Credits:** 3-5  
**Grade Mode:** Letter

#### **ANTH 471 - Field Work Methods in Cultural Anthropology**

The study of ethnographic field work methods through exercises in class and a major field work project in the community. Discussion of topics, including the anthropologist as field worker and the ethics of field work.

**Prerequisites & Notes:** ANTH 301 or ANTH 303 and junior or senior status, or permission of instructor.  
**Credits:** 7  
**Grade Mode:** Letter

#### **ANTH 472 - Visual Anthropology**

Examination of photographic representation of people by anthropologists, ethnographic filmmakers, indigenous people, media and other groups. Analytical skills and applications are emphasized and theoretical perspectives are explored.

**Prerequisites & Notes:** ANTH 301 or ANTH 303 and junior or senior status, or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

#### **ANTH 473 - Field Course in Ethnography**

Course is partly classroom-based and partly field-based research through participation in on-site projects. Actual projects vary by quarter and instructor.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 and permission of instructor.

**Credits:** 5-12

**Grade Mode:** Letter

#### **ANTH 475 - Global Migration**

Economic, political and human factors motivating movements of people and affecting their transitions into new societies; comparative exploration of issues, case studies and global trends, with specific focus on implications for policy and services.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

#### **ANTH 476 - Borderlands**

Comparative examination of simultaneous separating and integrating functions of borders, significance of border regions as vital transition zones, and transboundary policy needs associated with accelerated flows of people, goods and ideas; particular focus on U.S.-Mexico and U.S.-Canada borderlands.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.

**Credits:** 5

**Grade Mode:** Letter

#### **ANTH 479 - People of the Sea and Cedar Internship**

This is an internship at the Whatcom Museum, specifically to prepare students for workshops/tours for a program titled *The People of the Sea and Cedar*, which focuses on Northwest Coast Native peoples. The student will conduct workshops/tours for third and fourth grade students studying Native American history and culture. Interns will also learn about broader museum topics through readings and demonstrate their understandings through weekly short essays. A self-evaluation and Summary of Learning is also required. Interns should be comfortable working with people and hold an interest in Native American culture. Interns will need to be available for certain hours and make a two consecutive quarter commitment. Repeatable up to 7 credits including original course.

**Prerequisites & Notes:** ANTH 301 and junior status or instructor permission. Must reach junior status by winter quarter.

**Credits:** 1-6

**Grade Mode:** Letter

#### **ANTH 480 - Applied Anthropology**

Use of anthropology to solve human problems;

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examines ethics, interventions and policy applications regarding contemporary social issues.

**Prerequisites & Notes:** ANTH 301 or ANTH 303.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 481 - Childhood and Culture**

The process of socialization or enculturation viewed from a cross-cultural perspective.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 484 - Intercultural Education**

Comparative and anthropological study of educational issues. Examines learning in other cultures, home-school linkages, minority student achievement and multi-cultural curricula.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 490 - Senior Seminar in Anthropology**

Capstone seminar in anthropology. Topics vary, emphasis is on current research questions in anthropology. Students write a research proposal, conduct a research project and present the findings. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** Senior status in anthropology.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 495 - Teaching-Learning Processes in Anthropology**

Practicum as discussion leaders in anthropology courses. May be repeated once for departmental credit if taken from a different instructor.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

## **ANTH 496 - Portfolio Assembly**

Student assembles and submits portfolio contents in four areas: research, competence, data analysis, critical comprehension and synthetic comparison, under continuing direction of departmental academic adviser. S/U grading.

**Prerequisites & Notes:** Senior status in

anthropology.

**Credits:** 1

**Grade Mode:** S/U

## **ANTH 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **ANTH 501 - History of Anthropology**

Development of principal theoretical orientations and methods in the cultural and historical setting; development of anthropology as a discipline.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 502 - Theory in Anthropological Research**

Issues relating to use of theory in contemporary anthropological research; examination of major writings and their implications.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 503 - Research Design and Method**

Analysis of major theoretical approaches; research methods and procedures; relationship of theory and method in formulating research problems.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **ANTH 506 - Archaeological Method and Theory**

History of theory and method in North American archaeology and the legacy of earlier interpretive frameworks. Current goals of the discipline and the development of appropriate theory, method and empirical applications.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 510 - Applied Archaeological Analysis and Interpretation**

Advanced design and implementation of archaeological laboratory methods to a specific research project.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 511 - Current Archaeological Research in Northwestern North America**

Advanced survey of current literature in Pacific Northwest archaeology in seminar format with preparation of a major research paper.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 515 - Practicum in Archaeological Spatial Analysis**

Application of advanced quantitative spatial analysis techniques to specific archaeological contexts and projects. Students will complete a major research project and paper.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 520 - Human Osteology**

Advanced study of human osteology. The latest methods in reconstruction of the individual.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 522 - Nutritional Anthropology**

Advanced study of human nutrition and metabolism from an anthropological perspective. Topics include the structure and function of the digestive system, the chemical composition of nutrients and the regulation by the body of nutrient stores and body composition. Each student will prepare a major research paper and presentation.

**Prerequisites & Notes:** graduate student in good

standing in anthropology and other programs with program advisor approval

**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 524 - Applied Medical Anthropology**

Advanced study of the use of medical anthropological method and theory in contemporary health care systems or in the analysis of health and disease in past populations.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 525 - Primate Evolution**

Advanced study of primate paleontology. Each student is expected to become expert on some aspect of the fossil record.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 528 - Applied Cultural Resource Management**

Application of cultural resource management methods to specific management problems. Students will prepare a professional quality cultural resource management plan or nomination form.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 547 - Semiotic Anthropology**

Advanced study of theoretical approaches to meaning in linguistic anthropology, including but not limited to Piercean semiotics, trope theory, and methods for theorizing context.

**Prerequisites & Notes:** Graduate standing.  
**Credits:** 5  
**Grade Mode:** Letter

### **ANTH 553 - Women of the Global South**

Examines a variety of contemporary issues facing women of the South, such as economic realities, family responsibilities, health issues, and women's rights. Emphasis on individual and group work to examine selected topics and to gain in-depth knowledge about women in specific countries.

**Prerequisites & Notes:** Graduate status in the

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anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 554 - Participatory Action Research Methods**

Participatory Action Research is a methodology of researching, analyzing, and carrying out actions that directly benefit members (stakeholders) of a community. As a form of applied anthropology, PAR is a method that emphasizes working in collaboration with others to develop research questions, conduct research, analyze findings, present results, and create actions. In this course, students will work with identified community organizations and groups who are interested in the PAR methodology.

**Prerequisites & Notes:** ANTH 571 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 563 - Peoples of East and Southeast Asia**

Advanced study of selected important topics regarding the peoples and cultures of China, mainland and insular Southeast Asia. Emphasis on work to gain in-depth knowledge and understanding of selected cultures and/or theoretical-analytical topics of special relevance to the region.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 565 - Peoples of Mexico & Central America**

Advanced ethnological analysis of cultures and social relations in Mesoamerica, with emphasis on ecological, economic and political issues and implications for community resources for facing globalization.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 571 - Field Work Methods in Cultural Anthropology**

The study of ethnographic field work methods through exercises in class and a major field work project in the community. Discussion of topics, including the anthropologist as field worker and the ethics of field work.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 7

**Grade Mode:** Letter

### **ANTH 572 - Visual Anthropology**

Examination of photographic/digital image representation of people by anthropologists, ethnographic filmmakers, indigenous people, media and other groups. Requires analytical skills and applications and explores theoretical perspectives. Requires two projects with accompanying presentations.

**Prerequisites & Notes:** Graduate status.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 576 - Borderlands**

Advanced comparative examination of separating and integrating functions of borders, border regions as transition zones, and policy implications, with emphasis on U.S. borders with Mexico and Canada.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 580 - Applied Anthropology**

Advanced investigation of the use of anthropology to solve human problems; ethics, interventions and policy applications regarding contemporary social issues.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 581 - Childhood and Culture**

Advanced cultural analysis of the process of socialization, child welfare and policy relating to children.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ANTH 585 - Essentials of Graduate Study in Anthropology**

This course will acquaint students with faculty interests and departmental and university resources. Topics will include choosing a thesis research topic aligned with contemporary issues in

anthropology, forming a committee, and developing an appropriate plan of study.

**Prerequisites & Notes:** To be taken Fall Quarter of the first year. Not repeatable. S/U grading. Graduate status in the anthropology program or permission of instructor

**Credits:** 2

**Grade Mode:** S/U

### **ANTH 586 - Research Mentorship**

A seminar style class to discuss progress and issues in thesis development at various stages: writing a thesis topic proposal, submitting grant proposals and IRB proposals, and the logistics of conducting research. Other topics will include standards for professional writing and giving professional presentations. Students will be expected to present their thesis proposal in this venue. Repeatable for a minimum of 3 and maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Graduate status in Anthropology or instructor permission. To be taken Winter and Spring Quarter by first year students, and at least once in the second year.

**Credits:** 1

**Grade Mode:** S/U

### **ANTH 690 - Thesis**

Repeatable to a maximum of 12 cr. S/U grading

**Prerequisites & Notes:** formal advancement to candidacy for MA in Anthropology

**Credits:** 1-12

**Grade Mode:** S/U

# Communication Sciences and Disorders

## Introduction

### The Disciplines

Speech-language pathology and audiology are disciplines that have developed out of a concern for people with communication disorders. Speech-language pathologists work in a variety of settings with children and adults to prevent, assess, diagnose, and treat speech, language, communication and swallowing disorders. Audiologists are healthcare professionals who identify, diagnose, and provide evidence-based treatment of hearing, balance, and other auditory disorders. Preparation leading to an undergraduate degree in communication sciences and disorders includes a wide range of courses and a variety of clinical practicum opportunities working with the infant through geriatric populations.

Students who intend to seek employment as a speech-language pathologist or audiologist, whether in a public school, clinic, rehabilitation center, or hospital setting, are advised that a master's degree in speech-language pathology or a clinical doctorate in audiology and certification/licensure at the state and/or national levels are required. Out-of-state students should recognize that other requirements may exist for employment in their locales.

For students who do not wish to continue with a graduate degree in speech-language pathology or audiology, an undergraduate degree in CSD provides excellent preparation for other professions and fields of study. Some students with a CSD degree go on to attend graduate programs in deaf education, early childhood or elementary education, adult and higher education, or special education. Students not wishing to seek a graduate degree can work in the schools as an educational assistant, or pursue certification as a speech-language pathology assistant, a reading specialist or reading coach, a hearing aid dispenser, or an audiology technician. Some students pursue national or international teaching and service opportunities with organizations such as Teach for America, Americorps, or the Peace Corps.

### Degree Programs in Communication Sciences and Disorders

The Department of Communication Sciences and Disorders (CSD) offers a Bachelor of Arts in Communication Sciences and Disorders, a Master

of Arts in Speech-Language Pathology, and a Clinical Doctorate in Audiology. The Bachelor of Arts degree in CSD is a pre-professional degree with an emphasis on the liberal arts and sciences that prepares the student for pursuing graduate studies in either audiology or speech-language pathology. For the bachelor's degree in CSD at Western, a minor area of study is required and must be approved by the student's academic advisor. Suggested minor areas include audiology (in moratorium), linguistics, English, biology, physics, business, education, psychology, and sociology. Individually designed minors are permissible with faculty advisor approval.

The Master of Arts and Clinical Doctorate degrees are professional degrees and partially fulfill certification requirements at both the state and national levels.

A post-baccalaureate program is offered for those with an undergraduate degree in a field other than communication sciences and disorders and for those who hold a CSD degree that was completed five or more years ago. This program is designed to prepare such students for graduate-level study in speech-language pathology or audiology. The 45-50 credits four-quarter lockstep program begins fall quarter. The post-baccalaureate program is self-supporting and has a tuition rate that differs from that of regularly enrolled undergraduate students.

Students interested in the post-baccalaureate program need to complete the Extension Undergraduate Application. Extension admission and registration information is available from Extended Education, 360-650-7780.

**NOTE:** Enrollment in the post-baccalaureate program does not guarantee a place in the graduate program.

### Accreditation

The Master of Arts degree education program in speech-language pathology at Western Washington University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850, 800-498-2071 or 301-296-5700 (TTY). The Department of Communication Sciences and Disorders is also accredited by the National Council for the Accreditation of Teacher Education. The Clinical Doctorate in Audiology (AuD) at Western Washington University is in candidacy status with the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association.



Applications are being accepted for the AuD Program for the fall of 2017.

### Certification/Licensure in Speech-Language Pathology/Audiology

There are three types of professional certification/licensure in the field: state licensure from the Washington State Department of Health; certification as an educational staff associate from the Washington state Office of the Superintendent of Public Instruction; and the Certificate of Clinical Competence, a national certification, from ASHA. Consult the department for additional information.

### Faculty

**KIMBERLY A. PETERS** (2002) Chair and Associate Professor. BA, Trinity College; MA, PhD, University of Connecticut. Undergraduate advisor; director, aural rehabilitation clinics (audiology).

**RIEKO M. DARLING** (1995) Associate Professor. BS, MS, PhD, The Florida State University. Transfer advisor, undergraduate advisor; director, audiology clinics (audiology).

**DAVID L. EVANS** (2014) Assistant Professor. BA, University of Colorado-Boulder; MA, University of Maine; PhD, University of Nebraska-Lincoln (speech-language pathology).

**KELLI J. EVANS** (2014) Assistant Professor. BA, MA, University of Maine; PhD, University of Nebraska-Lincoln (speech-language pathology).

**MICHAEL R. FRAAS** (2012) Associate Professor. BA, Bowling Green State University; MA, PhD, University of Cincinnati (speech-language pathology).

### Clinical Educators

**KAREN-MARGRETHE BRUUN** (2010) Internship coordinator; Graduate program advisor; Post-Baccalaureate program coordinator; MA, Western Washington University (speech-language pathology).

**ANNA CHAMBERLIN** (1998) BA, MA, Western Washington University (audiology).

**JENNIFER GRUENERT** (2008) BA, MS, University of Washington (speech-language pathology).

**JILL K. HUNT-THOMPSON** (1977) BA, MA, Western Washington University (speech-language pathology).

**DIANA PECHTHALT** (2003) BA, MA, Western Washington University (speech-language pathology).

**YARROW POSPISIL** (2001) BS, University of Nebraska; MA, Western Washington University (speech-language pathology).

**JASMINE RUBERT** (2014) BA, MA, Western Washington University (speech-language pathology).

**LESLEY STEPHENS** (2006) Director, BA, MA,

University of Kansas. (speech-language pathology).

**TONY THOMPSON** (2015) BA, Ball State University; MA, University of Oregon (speech-language pathology).

**JOHN YOUNG** (2013) BA, MA, Western Washington University (audiology).

### Declaration Process

Students wishing to declare a major in Communication Sciences and Disorders must have:

1. Completed at least 75 credits;
2. Successfully completed or be currently enrolled in CSD 251;
3. Achieved a Western GPA (based on at least 12 credits) of 2.70 or higher. A grade of at least B- (2.70) in each of the core courses (CSD 251, 352, 354, and 356) may be substituted for the overall 2.70 GPA.

As stated in the section regarding general university academic policies, "any grade below a C- is unacceptable in the student's major or minor." In the Communication Sciences and Disorders Department students also are required to complete each prerequisite course with a grade of C- or better before enrolling in the courses for which that serves as a prerequisite.

### Other Departmental Information

Essential Functions/Technical Standards of Degree Programs in Communication Sciences and Disorders Admission, Retention and Graduation Standards

### Introduction

The graduate degree in Communication Sciences and Disorders is recognized as a broad degree requiring the acquisition of general knowledge and basic skills in all applicable domains of speech and hearing sciences. The education of speech-language pathologists and audiologists requires assimilation of knowledge, acquisition of skills and development of judgment through academic and clinical experience in preparation for independent and appropriate decisions required in practice. The current practices of speech-language pathology and audiology emphasizes collaboration among speech-language pathologists, audiologists, other health care and education professionals, the patient/client, and the patient/client's family.

### Policy

The accredited graduate program in speech-language pathology of the Department of Communication Sciences and Disorders (CSD) at

# COMMUNICATION SCIENCES AND DISORDERS

Western Washington University adheres to the standards and guidelines of the Council of Academic Accreditation in Audiology and Speech-Language Pathology. Within these guidelines, the CSD program has the freedom and ultimate responsibility for: the selection of students; the design, implementation, and evaluation of the curriculum; the evaluation of student progress; and, the determination of who should be awarded a degree. Admission and retention decisions are based not only on satisfactory academic achievement, but also on other academic factors that serve to ensure that the candidate can complete the essential functions of the program required for graduation.

The Department has a responsibility to the public that its graduates can become fully competent and caring speech-language pathologists and audiologists, capable of doing benefit and not harm. Thus, it is important that persons admitted possess the intelligence, integrity, compassion, humanitarian concern, and physical and emotional capacity necessary to practice speech-language pathology and/or audiology.

The Department of Communication Sciences and Disorders, as part of the College of Humanities and Social Sciences at Western Washington University is committed to the principle of equal opportunity. The University, College, and Department do not discriminate on the basis of race, color, creed, religion, national origin, sex, disability, age, veteran status, sexual orientation, gender identity or expression, marital status, pregnancy, parenting status or genetic information. The University, College, and Department are committed to providing access, equal opportunity, and reasonable accommodation in its services, programs, activities, education, and employment for individuals with disabilities.

When requested, the University will provide reasonable accommodation to otherwise qualified students with properly certified disabilities. Students with disabilities requesting accommodations utilize the disAbility Resources for Students, [drs@wwu.edu](mailto:drs@wwu.edu). More information can be found at: [www.wwu.edu/disability/](http://www.wwu.edu/disability/).

The CSD Department's faculty and professional staff have responsibility for the welfare of students in the Department. In order to fulfill this responsibility, the Department has established academic standards and minimum essential requirements that must be met with or without reasonable accommodations in order to participate in the program and graduate.

## Essential Functions

In order to acquire the knowledge and skills requisite to the practice of speech-language pathology to function in a broad variety of clinical situations, and to render a wide spectrum of patient care, individuals must have skills and attributes in five areas: communication, motor, intellectual-cognitive sensory-observational, and behavioral-social. These skills enable a student to meet graduate and professional requirements as measured by state licensure and national certification. Many of these skills can be learned and developed during the course of the graduate program through coursework and clinical experience. The starred items (\*), however, are skills that are more inherent and should be present when a student begins the program.

## Communication

A student must possess adequate communication skills to:

- Communicate proficiently in both oral and written English language.
- (Language to be determined by program.)\*
- Possess reading and writing skills sufficient to meet curricular and clinical demands.\*
- Perceive and demonstrate appropriate non-verbal communication for culture and context.\*
- Modify communication style to meet the communication needs of clients, caregivers, and other persons served. \*
- Communicate professionally and intelligibly with patients, colleagues, other healthcare professionals, and community or professional groups.
- Communicate professionally, effectively, and legibly on patient documentation, reports, and scholarly papers required as a part of course work and professional practice.
- Convey information accurately with relevance and cultural sensitivity.

## Motor

A student must possess adequate motor skills to:

- Sustain necessary physical activity level in required classroom and clinical activities.\*
- Respond quickly to provide a safe environment for clients in emergency situations including fire, choking, etc.\*
- Access transportation to clinical and academic placements.\*
- Participate in classroom and clinical activities for the defined workday.\*
- Efficiently manipulate testing and treatment environment and materials

without violation of testing protocol and with best therapeutic practice.

- Manipulate patient-utilized equipment (e.g. durable medical equipment to include AAC devices, hearing aids, etc.) in a safe manner.
- Access technology for clinical management (i.e. billing, charting, therapy programs, etc.)

### Intellectual/Cognitive

A student must possess adequate intellectual and cognitive skills to:

- Comprehend, retain, integrate, synthesize, infer, evaluate and apply written and verbal information sufficient to meet curricular and clinical demands.\*
- Identify significant findings from history, evaluation, and data to formulate a diagnosis and develop a treatment plan.
- Solve problems, reason, and make sound clinical judgments in patient assessment, diagnostic and therapeutic plan and implementation.
- Self evaluate, identify, and communicate limits of one's own knowledge and skill to appropriate professional level and be able to identify and utilize resources in order to increase knowledge.
- Utilize detailed written and verbal instruction in order to make unique and dependent decisions.

### Sensory/Observational

A student must possess adequate sensory skills of vision, hearing, tactile, and smell to:

- Visually and auditorily identify normal and disordered (fluency, articulation, voice, resonance, respiration characteristics, oral and written language in the areas of semantics, pragmatics, syntax, morphology and phonology, hearing and balance disorders, swallowing cognition, social interaction related to communication).
- Identify the need for alternative modalities of communication.
- Visualize and identify anatomic structures.
- Visualize and discriminate imaging findings.
- Identify and discriminate findings on imaging studies.
- Discriminate text, numbers, tables, and graphs associated with diagnostic instruments and tests.

- Recognize when a client's family does or does not understand the clinician's written and or verbal communication.

### Behavioral/Social

A student must possess adequate behavioral and social attributes to:

- Display mature empathetic and effective professional relationships by exhibiting compassion, integrity, and concern for others.\*
- Recognize and show respect for individuals with disabilities and for individuals of different ages, genders, race, religions, sexual orientation, and cultural and socioeconomic backgrounds.\*
- Conduct oneself in an ethical and legal manner, upholding the ASHA Code of Ethics and university and federal privacy policies.\*
- Maintain general good physical and mental health and self-care in order not to jeopardize the health and safety of self and others in the academic and clinical setting.\*
- Adapt to changing and demanding environments (which includes maintaining both professional demeanor and emotional health).
- Manage the use of time effectively to complete professional and technical tasks within realistic time constraints.
- Accept appropriate suggestions and constructive criticism and respond by modification of behaviors.
- Dress appropriately and professionally.

Sources:

Council of Academic Programs in Communicative Sciences and Disorders (2007). Eligibility Requirements and Essential Functions. Prepared by Schwartz et al., and retrieved from [www.capcsd.org/proceedings/2007/talks/EFchecklist.pdf](http://www.capcsd.org/proceedings/2007/talks/EFchecklist.pdf) on 08.17.15.

Department of Communication Sciences and Disorders (01-24-03). Essential Functions of Candidates for Program Admission and Continuance. Western Washington University. Prepared by Dr. Rieko Darling, Dr. Michael Seilo, and Dr. Lina Zeine.

Department of Speech and Hearing Sciences (2009). Essential Functions of Speech and Hearing Sciences Education. University of Washington, Seattle, Washington, and retrieved from

# COMMUNICATION SCIENCES AND DISORDERS

catalyst.uw.edu/workspace/sphscfw/39520/278617 on 08.17.15.

Committee on Essential Functions (2008). Essential Functions in Speech-Language Pathology, CAPCSD (2008). Prepared by Jackson, et al., and retrieved from [http://capcsd.org/proceedings/2008/talks/Presentation-Essential\\_Functions.pdf](http://capcsd.org/proceedings/2008/talks/Presentation-Essential_Functions.pdf) on 08.17.15.

## Writing Proficiency Guidelines

Majors in Communication Sciences and Disorders must complete a minimum of three writing

proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-. Students must meet with an undergraduate advisor no later than the fourth week of winter quarter of the junior year to file a plan of study. The plan of study will include signing up for specific writing proficiency courses and labs.

## Graduate Study

For a concentration leading to the Master of Arts degree or the Clinical Doctorate degree in Audiology, see the Graduate School section of this catalog.

# Bachelor of Arts

## Communication Sciences and Disorders, BA

Communication Sciences and Disorders, College of Humanities and Social Sciences

### 67 Credits

### Introduction

Communication Sciences and Disorders includes two disciplines, Speech-Language Pathology and Audiology, which have developed out of a concern for people with communication disorders. The academic and clinical curriculum at the undergraduate level includes a wide range of courses and clinical practicum opportunities. Students study normal communication processes and disorders. Courses in normal processes include Language Development, Speech Acoustics, Hearing Science, and Anatomy and Physiology. Courses regarding disorders cover Language Disorders, Phonological Disorders, and Hearing Disorders, for example. The undergraduate education prepares students to pursue a graduate degree. A master's degree in Speech-Language Pathology or a clinical doctorate degree in Audiology and certification at the national level are required to engage in professional practice.

### Why Consider a Communications Sciences and Disorders Major?

Many people easily talk with family, friends, and colleagues every day. Although we often take language, speech, and hearing for granted, these processes are extraordinarily complex. Furthermore, anyone at any age can be affected by illness or injury that will impair the ability to talk or hear. In fact, one out of every six Americans has a communication disorder. Each one can be helped in some way by a speech-language pathologist, audiologist, or speech, language, and hearing scientist.

Grounded in the latest scientific theories and research, CSD students learn to assess and treat persons with communication disorders — from infants to the elderly. In labs students have access to state-of-the-art equipment and analysis procedures as they study sound, speech, language, and hearing. Speech-language pathologists and audiologists make a positive contribution to people's lives. With the changing makeup of our population comes the need for speech-language-hearing professionals who are skilled in working in a complex and diverse society. For people with the proper education and flexibility, employment prospects are excellent. Opportunities and challenges await you!

#### Contact Information

##### Department Office

Academic Instructional Center 394  
360-650-3885

##### Transfer Advisor

Rieko Darling  
Academic Instructional Center 372  
360-650-3143  
[Rieko.Darling@wwu.edu](mailto:Rieko.Darling@wwu.edu)

## Undergraduate Advisor

David Evans  
Academic Instructional Center 376  
360-650-3178  
David.Evans@wwu.edu

## Undergraduate Advisor

Rieko Darling  
Academic Instructional Center 372  
360-650-3143  
Rieko.Darling@wwu.edu

## Undergraduate Advisor

Michael Fraas  
Academic Instructional Center 374  
360-650-7536  
Michael.Fraas@wwu.edu

### Sample Careers

Speech-Language Pathologist | Speech-Language Scientist | Government/Industry Consultant | Audiologist | Hearing Scientist | Clinic Administrator

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

**Admissions:** To declare the major, students must have completed the following requirements:

- Completed at least 75 credits
- Successfully completed or be currently enrolled in CSD 251
- Achieved a Western GPA (based on at least 12 credits) of 2.7 or higher (A grade of at least B- (2.7) in each of the core courses (CSD 251, 352, 354, and 356) may substitute for the overall 2.7 GPA)

**Application deadlines:** Students must begin the lock-step major in the fall quarter (usually the junior year) in order to complete the series of required courses within two years.

**Advising Tips:** Enroll in CSD 251 to learn more about this major. Students must complete at least one course in Biological Sciences, Social/Behavioral Sciences, Physical Sciences, and Mathematics during undergraduate study to meet certification requirements. Contact a CSD undergraduate advisor with questions.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CSD 251 - Introduction to Communication Disorders
- CSD 352 - Anatomy and Physiology of Speech Mechanisms
- CSD 353 - Speech Science
- CSD 354 - Speech and Language Development in Children
- CSD 356 - Phonetics and Phonology
- CSD 361 - Language Disorders, Birth to Five
- CSD 371 - Hearing Science
- CSD 372 - Anatomy, Physiology, and Disorders of Hearing and Balance
- CSD 450 - Neuroanatomy for Speech Pathology and Audiology
- CSD 451 - Language Disorders II
- CSD 453 - Introduction to Speech Disorders
- CSD 457 - Clinical Processes
- CSD 458 - Application of Clinical Processes to CSD
- CSD 459 - Lab: Beginning Clinical Practice in Speech-Language Therapy
- CSD 462 - Audiometric Testing
- CSD 463 - Aural Rehabilitation
- CSD 486 - Infants and Children With Hearing Loss
- CSD 488 - Hearing Loss in Adulthood
- LIBR 403 - Research Tutorial
- CSD 401 - Writing Lab
- Electives under departmental advisement
- Required minor of 24 credit or more.

## Master of Arts

### Speech-Language Pathology, Non-Thesis Option, MA

Department of Communication Sciences and Disorders, College of Humanities and Social Sciences

#### Graduate Faculty

**Darling, Rieko M.**, PhD, audiology, amplification, geriatrics, central auditory processing disorders, aural rehabilitation.

**Evans, David L.**, PhD, speech-language pathology, stuttering, speech science, communication in virtual environments.

**Evans, Kelli J.**, PhD, speech-language pathology, adult neurogenic disorders, cognitive-communication disorders.

**Fraas, Michael R.**, PhD, speech-language pathology, adult neurogenic disorders, cognitive disorders, dysphagia.

**Peters, Kimberly A.**, PhD, audiology, pediatric audiology, auditory physiology, aural (re)habilitation, cochlear implants, social cognition, social competence.

Graduate Program Advisor: Karen-Margrethe Bruun, AI 380, 360-650-3197

#### Goals

The objectives of the program in Speech-Language Pathology are to prepare competent entry-level professionals in speech-language pathology and to prepare students for advanced study at the PhD level. The program includes an internship taken after other academic and clinical requirements have been completed.

Speech-language pathology is a discipline which has developed out of a concern for people with communication disorders. Preparation leading to a degree in communication sciences and disorders includes a wide range of course work and a variety of clinical practicum opportunities working with the infant through geriatric populations.

Students who intend to seek employment in this profession, whether in a public school, clinic, rehabilitation center or hospital setting, are advised that certification/licensure at the state and/or national levels is required. Out-of-state students should recognize that other requirements may exist for employment in different geographic locations.

#### Prerequisites

Students must have completed an undergraduate major in Communication Sciences and Disorders (CSD) or an equivalent professional core curriculum. The BA or BS in Communication Sciences and Disorders (Speech Pathology and Audiology) must have been completed within the past five years in order to be considered as an applicant for the graduate program in CSD. Grade point average requirements are consistent with those of the Graduate School. Students must have completed the Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

Students who are not native speakers of English must demonstrate competence in written and spoken English. This can be done by submitting a satisfactory score on the international TOEFL, taken within one year of the date of application. A minimum composite score of 600 is required for the paper-based test; the scaled score for the computer-based test is 250; the Internet-based minimum score is 100. The TOEFL scores must be on file in the Graduate School prior to receipt of the application for graduate study.

#### ASHA Standards

**IV-A:** The applicant must demonstrate knowledge of the principles of biological sciences, physical sciences, statistics, and the social/behavioral sciences.

**Implementation:** The applicant must have transcript credit (which could include course work, advanced placement, CLEP, or examination of equivalency) for each of the following areas: biological sciences, physical sciences, social/behavioral sciences, and statistics. Appropriate course work may include human anatomy and

## COMMUNICATION SCIENCES AND DISORDERS

physiology, neuroanatomy and neurophysiology, genetics, physics, inorganic and organic chemistry, psychology, sociology, and anthropology. The intent of this standard is to require students to have a broad liberal arts and science background. Courses in biological and physical sciences specifically related to communication sciences and disorders may not be applied for certification purposes in this category. In addition to transcript credit, applicants may be required by their graduate program to provide further evidence of meeting this requirement.

The Graduate Program Advisor will review the student's transcript during the first quarter of graduate work and if any of the above course work needs to be completed, the student will be advised to do so, as an overload, before graduation.

### Application Information

Enrollment is limited to 20 new graduate students per year.

**Admit Quarter:** Fall quarter only. The communication sciences and disorders program is a lock-step program which offers courses in sequence once a year beginning in the fall.

**Deadline:** Application deadline is February 1.

**TA Deadline:** Application deadline is February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011. (No test scores are required if an applicant holds an advanced degree — MA, MS, PhD.)

### Supporting Materials:

- Application with \$100 fee (subject to change)
- Three recent letters of reference
- One official transcript from every school attended (no more than two years old)
- One-page statement of purpose
- One-page résumé

### Program Requirements (77-80 credits)

- CSD 502 - Research Methods in Communication Sciences and Disorders
- CSD 510 - Assessment and Treatment of Resonance Disorders
- CSD 515 - Seminar: Phonology
- CSD 540 - Essential Audiology for Speech Language Pathologists
- CSD 541 - Professional Issues in Speech-Language Pathology
- CSD 542 - Adult and Pediatric Dysphagia
- CSD 546 - Strategies for Assessment in CSD
- CSD 549 - Clinical Practicum
- CSD 550 - Voice Disorders and Therapy
- CSD 552 - Assessment Practicum in Speech-Language Pathology
- CSD 553 - Seminar: Preschool Language Development and Disorders
- CSD 554 - Stuttering
- CSD 555 - Seminar: Language Disorders in the School Age Child
- CSD 556 - Assessment and Treatment of Aphasia & Related Acquired Language Disorders
- CSD 558 - Graduate Clinical Practice in Speech-Language Pathology (students must take for a total of 6 credits)
- CSD 560 - Speech-Language Pathology Practicum
- CSD 564 - Advanced Clinical Practice in Aural Rehabilitation
- CSD 575 - Counseling in Communication Disorders
- CSD 576 - Cognitive Communication Disorders
- CSD 585 - Neuromotor Speech Disorders
- CSD 588 - Seminar in Augmentative and Alternative Communication
- CSD 599 - Intern Speech/Lang Path/Aud \*\*
- Select one of the following courses:

## COMMUNICATION SCIENCES AND DISORDERS

CSD 580 - Communication Disorders in the Public Schools #

CSD 582 - Medical Speech Pathology

□ Electives:

CSD 559 - Speech-Language Pathology Practicum

CSD 592 - Seminar in Autism

CSD 598 - Internship in Speech-Language Pathology or Audiology \*\*

CSD 691 - Non-Thesis Option

#Required for students intending to apply for Washington state CSD certificate.

\*\*Although the internship courses (598; 599) are 1-4 and 8 credits each, respectively, only a total of 6 credits can apply toward the MA degree.

### Additional Information

#### Clinical Competence

In addition to meeting academic requirements, students specializing in speech-language pathology must demonstrate satisfactory competence in diagnostic and clinical practica. Refer to course description for additional information. No student in CSD may participate as a primary clinician in the clinic or an internship until cleared by the Washington State Office of Superintendent of Public Instruction and the Federal Bureau of Investigation background check. Clearance is valid for specified time frames. Procedure and fee information are provided to students upon acceptance into the graduate program. At times, the requirements for the completion of clinical practicum courses may fall outside the regular University calendar. Contact the department for further details.

Students are permitted to retake a clinical practicum only once. If a satisfactory grade is not achieved in the retake, students will not be permitted to continue in the practicum courses.

Not everyone is suited to work with clients in the clinical fields of speech-language pathology and audiology even though the student may maintain a satisfactory academic record. The faculty and staff of the Department of Communication Sciences and Disorders thus reserve the right to counsel students with this in mind, and to recommend a change of academic focus for the student who appears to have personality traits that would prevent the student from being successful in the discipline.

#### Internship

An internship is required for all CSD students. This experience provides an opportunity for each student to refine and expand basic clinical skills by participating in a supervised, full-time work experience in a professional setting. The terminal objective of this training phase is to facilitate each clinician's transition from student in training to competent entry-level professional. As such, the internship is taken after other academic and clinical requirements have been completed with the exception of the research project. In addition to the required full-time internship (CSD 599), students also may choose to complete one or more part-time internships (CSD 598). Both the full-time and part-time placements require assignment to clinical settings off campus (e.g., schools, hospitals, private clinics, et cetera).

Due to the limited number of clinical credits that may be applied toward the graduate degree, students may use only 3 of the 8 CSD 599 credits toward the MA. An additional 3 credits of CSD 598 also may be applied toward the MA. Please see the graduate advisor or internship coordinator for further information.

#### Accreditation

The graduate program in speech-language pathology at Western Washington University is accredited by the Council of Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language Hearing Association and by the National Council for the Accreditation of Teacher Education.

#### Professional Certification Requirements

The American Speech-Language-Hearing Association (ASHA) 2014 Standards for the Certificate of Clinical Competence in Speech-Language Pathology stipulate the completion of 400 clock hours of practicum. Of these hours, at least 375 must be direct patient contact, at least 325 of which must be obtained at the graduate level. The requirement is met by taking an appropriate number of practicum credits (see application



information above). Consult the department about specific requirements regarding clinical experience in the area in which the certificate is sought. Consult the ASHA Membership and Certification Handbook for details.

### **Speech-Language Pathology, Thesis Option, MA**

Department of Communication Sciences and Disorders, College of Humanities and Social Sciences

#### **Graduate Faculty**

**Darling, Rieko M.**, PhD, audiology, amplification, geriatrics, central auditory processing disorders, aural rehabilitation.

**Evans, David L.**, PhD, speech-language pathology, stuttering, speech science, communication in virtual environments.

**Evans, Kelli J.**, PhD, speech-language pathology, adult neurogenic disorders, cognitive-communication disorders.

**Fraas, Michael R.**, PhD, speech-language pathology, adult neurogenic disorders, cognitive disorders, dysphagia

**Peters, Kimberly A.**, PhD, audiology, pediatric audiology, auditory physiology, aural (re)habilitation, cochlear implants, social cognition, social competence.

Graduate Program Advisor: Karen-Margrethe Bruun, AI 380, 360-650-3197

#### **Goals**

The objectives of the program in Speech-Language Pathology are to prepare competent entry-level professionals in speech-language pathology and to prepare students for advanced study at the PhD level. The program includes an internship taken after other academic and clinical requirements have been completed.

Speech-language pathology is a discipline which has developed out of a concern for people with communication disorders. Preparation leading to a degree in communication sciences and disorders includes a wide range of course work and a variety of clinical practicum opportunities working with the infant through geriatric populations.

Students who intend to seek employment in this profession, whether in a public school, clinic, rehabilitation center or hospital setting, are advised that certification/licensure at the state and/or national levels is required. Out-of-state students should recognize that other requirements may exist for employment in different geographic locations.

#### **Prerequisites**

Students must have completed an undergraduate major in Communication Sciences and Disorders (CSD) or an equivalent professional core curriculum. The BA or BS in Communication Sciences and Disorders (Speech Pathology and Audiology) must have been completed within the past five years in order to be considered as an applicant for the graduate program in CSD. Grade point average requirements are consistent with those of the Graduate School. Students must have completed the Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

Students who are not native speakers of English must demonstrate competence in written and spoken English. This can be done by submitting a satisfactory score on the international TOEFL, taken within one year of the date of application. A minimum composite score of 600 is required for the paper-based test; the scaled score for the computer-based test is 250; the Internet-based minimum score is 100. The TOEFL scores must be on file in the Graduate School prior to receipt of the application for graduate study.

#### **ASHA Standards**

**IV-A:** The applicant must demonstrate knowledge of the principles of biological sciences, physical sciences, statistics, and the social/behavioral sciences.

**Implementation:** The applicant must have transcript credit (which could include course work, advanced placement, CLEP, or examination of equivalency) for each of the following areas: biological sciences, physical sciences, social/behavioral sciences, and statistics. Appropriate course work may include human anatomy and

# COMMUNICATION SCIENCES AND DISORDERS

physiology, neuroanatomy and neurophysiology, genetics, physics, inorganic and organic chemistry, psychology, sociology, and anthropology. The intent of this standard is to require students to have a broad liberal arts and science background. Courses in biological and physical sciences specifically related to communication sciences and disorders may not be applied for certification purposes in this category. In addition to transcript credit, applicants may be required by their graduate program to provide further evidence of meeting this requirement.

The Graduate Program Advisor will review the student's transcript during the first quarter of graduate work and if any of the above course work needs to be completed, the student will be advised to do so, as an overload, before graduation.

## Application Information

Enrollment is limited to 20 new graduate students per year.

**Admit Quarter:** Fall quarter only. The communication sciences and disorders program is a lock-step program which offers courses in sequence once a year beginning in the fall.

**Deadline:** Application deadline is February 1.

**TA Deadline:** Application deadline is February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011. (No test scores are required if an applicant holds an advanced degree — MA, MS, PhD.)

## Supporting Materials:

- Application with \$100 fee (subject to change)
- Three recent letters of reference
- One official transcript from every school attended (no more than two years old)
- One-page statement of purpose
- One-page résumé

## Program Requirements (88-92 credits)

- CSD 502 - Research Methods in Communication Sciences and Disorders
- CSD 510 - Assessment and Treatment of Resonance Disorders
- CSD 515 - Seminar: Phonology
- CSD 540 - Essential Audiology for Speech Language Pathologists
- CSD 541 - Professional Issues in Speech-Language Pathology
- CSD 542 - Adult and Pediatric Dysphagia
- CSD 546 - Strategies for Assessment in CSD
- CSD 549 - Clinical Practicum
- CSD 550 - Voice Disorders and Therapy
- CSD 552 - Assessment Practicum in Speech-Language Pathology
- CSD 553 - Seminar: Preschool Language Development and Disorders
- CSD 554 - Stuttering
- CSD 555 - Seminar: Language Disorders in the School Age Child
- CSD 556 - Assessment and Treatment of Aphasia & Related Acquired Language Disorders
- CSD 558 - Graduate Clinical Practice in Speech-Language Pathology (students must take for a total of 6 credits)
- CSD 560 - Speech-Language Pathology Practicum
- CSD 564 - Advanced Clinical Practice in Aural Rehabilitation
- CSD 575 - Counseling in Communication Disorders
- CSD 576 - Cognitive Communication Disorders
- CSD 585 - Neuromotor Speech Disorders
- CSD 588 - Seminar in Augmentative and Alternative Communication
- CSD 599 - Intern Speech/Lang Path/Aud (students must take for a total of 8 credits)
- CSD 690 - Thesis (students must take for a total of 6-9 credits)

- ❑ Select one of the following courses:
    - CSD 580 - Communication Disorders in the Public Schools #
    - CSD 582 - Medical Speech Pathology
  - ❑ Optional Electives:
    - CSD 559 - Speech-Language Pathology Practicum
    - CSD 592 - Seminar in Autism
    - CSD 598 - Internship in Speech-Language Pathology or Audiology
- #Required for students intending to apply for Washington state CSD certificate.

## Additional Information

### Clinical Competence

In addition to meeting academic requirements, students specializing in speech-language pathology must demonstrate satisfactory competence in diagnostic and clinical practica. Refer to course description for additional information. No student in CSD may participate as a primary clinician in the clinic or an internship until cleared by the Washington State Office of Superintendent of Public Instruction and the Federal Bureau of Investigation background check. Clearance is valid for specified time frames. Procedure and fee information are provided to students upon acceptance into the graduate program. At times, the requirements for the completion of clinical practicum courses may fall outside the regular University calendar. Contact the department for further details.

Students are permitted to retake a clinical practicum only once. If a satisfactory grade is not achieved in the retake, students will not be permitted to continue in the practicum courses.

Not everyone is suited to work with clients in the clinical fields of speech-language pathology and audiology even though the student may maintain a satisfactory academic record. The faculty and staff of the Department of Communication Sciences and Disorders thus reserve the right to counsel students with this in mind, and to recommend a change of academic focus for the student who appears to have personality traits that would prevent the student from being successful in the discipline.

### Internship

An internship is required for all CSD students. This experience provides an opportunity for each student to refine and expand basic clinical skills by participating in a supervised, full-time work experience in a professional setting. The terminal objective of this training phase is to facilitate each clinician's transition from student in training to competent entry-level professional. As such, the internship is taken after other academic and clinical requirements have been completed with the exception of the research project. In addition to the required full-time internship (CSD 599), students also may choose to complete one or more part-time internships (CSD 598). Both the full-time and part-time placements require assignment to clinical settings off campus (e.g., schools, hospitals, private clinics, et cetera).

Due to the limited number of clinical credits that may be applied toward the graduate degree, students may use only 3 of the 8 CSD 599 credits toward the MA. An additional 3 credits of CSD 598 also may be applied toward the MA. Please see the graduate advisor or internship coordinator for further information.

### Thesis

Students will complete a thesis project with a faculty advisor followed by an oral examination based on the student's topic. For details regarding the thesis process, timeline, and oral defense, the student should consult the Graduate Program Advisor. Any recent policy/procedure changes or exceptions will be listed in the current CSD Graduate Guide.

### Accreditation

The graduate program in speech-language pathology at Western Washington University is accredited by the Council of Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language Hearing Association and by the National Council for the Accreditation of Teacher Education.

# COMMUNICATION SCIENCES AND DISORDERS

## Professional Certification Requirements

The American Speech-Language-Hearing Association (ASHA) 2014 Standards for the Certificate of Clinical Competence in Speech-Language Pathology stipulate the completion of 400 clock hours of practicum. Of these hours, at least 375 must be direct patient contact, at least 325 of which must be obtained at the graduate level. The requirement is met by taking an appropriate number of practicum credits (see application information above). Consult the department about specific requirements regarding clinical experience in the area in which the certificate is sought. Consult the ASHA Membership and Certification Handbook for details.

## Minor

### Audiology Minor (In Moratorium)

Department of Communication Sciences & Disorders, College of Humanities and Social Sciences

**Notice:** The Department of Communication Sciences and Disorders at Western Washington University admitted its last audiology minor students fall 2013. The department placed a moratorium on admission until further notice. Please contact the department for more information.

#### Contact Information

##### Department Office

Academic Instructional Center 394  
360-650-3885

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Declaration of Major

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CSD 381 - Physiological and Psychological Bases of Hearing
- CSD 464 - Clinical Practice in Aural Rehabilitation
- CSD 468 - Clinical Practicum in Audiology
- CSD 482 - Clinical Hearing Technology
- CSD 483 - Amplification and Sensory Systems
- CSD 485 - Children With Hearing Loss in School
- CSD 487 - Fundamentals of Hearing Conservation
- Electives from:
  - CSD 400 - Directed Independent Study
  - CSD 491 - Senior Research Project
  - CSD 499 - Field Placement/Observation in Speech-Language Pathology or Audiology

Meeting with CSD advisor required before registering for audiology minor.

### Communication Sciences and Disorders Minor

Department of Communication Sciences and Disorders, College of Humanities and Social Sciences

**25 credits minimum**

## Introduction

The academic and clinical curriculum at the undergraduate level includes a wide range of courses. Students study normal communication processes and disorders. Courses in normal processes include Language Development, Speech Acoustics, Hearing Science, and Anatomy and Physiology. Courses regarding disorders cover Language Disorders, Phonological Disorders, and Hearing Disorders, for example. Students start the minor program in the fall and follow the four quarter lockstep for required and elective courses for the minor.

## Why Consider a Communication Sciences and Disorders Minor?

Students who are interested in learning more about typical speech, language, and hearing development, processes and disorders but who do not want to complete a major in Communication Sciences and Disorders can minor in CSD. The CSD minor supplements many other majors and programs of study, such as psychology, linguistics, and early childhood and special education.

### Contact Information

#### Department Office

Academic Instructional Center 394  
360-650-3885

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Contact department for advising, plan of study, and declaration of minor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CSD 251 - Introduction to Communication Disorders
- CSD 352 - Anatomy and Physiology of Speech Mechanisms
- CSD 354 - Speech and Language Development in Children
- CSD 356 - Phonetics and Phonology
- CSD 371 - Hearing Science
- CSD 372 - Anatomy, Physiology, and Disorders of Hearing and Balance
- Electives from:
  - CSD 253 - Speech and Hearing Sciences for the Liberal Arts
  - CSD 353 - Speech Science
  - CSD 361 - Language Disorders, Birth to Five
  - CSD 451 - Language Disorders II
  - CSD 453 - Introduction to Speech Disorders
  - CSD 463 - Aural Rehabilitation

## WWU (Non-Degree)

### Communication Sciences and Disorders Post-Baccalaureate Preparation Program

Communication Sciences and Disorders, College of Humanities and Social Sciences

#### 54 Credits

## Introduction

# COMMUNICATION SCIENCES AND DISORDERS

The Department of Communication Sciences and Disorders offers a post-baccalaureate program for students interested in pursuing a graduate degree in Speech-Language Pathology or Audiology. Such students currently hold a degree outside the discipline of speech, language, and hearing science. The program is a 4-quarter lockstep program beginning fall quarter. Courses are taken sequentially through the year, including summer quarter.

The program is administered by the Extended Education division of Western Washington University. It is important to note that acceptance into this post-baccalaureate program does not guarantee admission to the graduate program. Completion of the Western Washington University post-baccalaureate program qualifies students for consideration for admission to our master's program in Speech-Language Pathology or similar graduate programs in other universities.

Contact Information	
<b>Department Office</b> Academic Instructional Center 394 360-650-3885	<b>Advisor</b> Karen-Margrethe Bruun 360-650-3197 Karen-Margethe.Brunn@wwu.edu
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

## How to Declare (Admission and Declaration Process):

If you are interested in applying to the post-baccalaureate program, please contact Jenny Hebert, 360-650-7780, for an application packet.

## Admissions and Application Requirements:

- An undergraduate degree in a major other than speech pathology/audiology
- A completed application form
- Resume (font size no smaller than 11 and one-inch margins for all materials)
- A copy of a sealed official transcript from each college or university attended
- Three letters of recommendation
- A one-page statement of purpose
- A non-refundable \$55 application fee made out to WWU
- Review and recommendation by the CSD faculty

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CSD 251 - Introduction to Communication Disorders
- CSD 352 - Anatomy and Physiology of Speech Mechanisms
- CSD 353 - Speech Science
- CSD 354 - Speech and Language Development in Children
- CSD 356 - Phonetics and Phonology
- CSD 361 - Language Disorders, Birth to Five
- CSD 371 - Hearing Science
- CSD 372 - Anatomy, Physiology, and Disorders of Hearing and Balance
- CSD 450 - Neuroanatomy for Speech Pathology and Audiology
- CSD 451 - Language Disorders II
- CSD 460 - Assess & Intervention in CSD
- CSD 462 - Audiometric Testing
- CSD 463 - Aural Rehabilitation
- LIBR 403 - Research Tutorial

## Clinical Doctorate

### Clinical Doctorate in Audiology, AuD (Pending Approval)

Department of Communication Sciences and Disorders, College of Humanities and Social Sciences

Please note that the Clinical Doctorate in Audiology, AuD program has been approved by Western Washington University, pending approval to add the new degree by the Northwest Commission on Colleges and Universities: the intent is to enroll the first student cohort for the 2017-18 academic year. Western Washington University is an Applicant for Candidacy by the Council on Academic Accreditation. This status is used to identify a graduate education program that has submitted an Application for Candidacy and has met eligibility criteria to participate in the candidacy program. Opening of the program is pending approval by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA), the nationally recognized accrediting agency for graduate programs in the profession. Students will be admitted and enrolled once the CAA awards Candidacy Status to the program.

#### Graduate Faculty

**Darling, Rieko M.**, PhD, audiology, amplification, geriatrics, central auditory processing disorders, aural rehabilitation.

**Peters, Kimberly A.**, PhD, audiology, pediatric audiology, auditory physiology, aural (re)habilitation, cochlear implants, social cognition, social competence.

AuD Graduate Program Director: Rieko Darling, AI 372, 360-650-3143.

#### Goals

The objectives of the clinical doctorate program in Audiology at Western Washington University are to prepare competent entry-level professionals in audiology and to prepare students for advanced study at the PhD level. The program is a full-time, four-year program. During the first three years of the program, students enroll in coursework and clinical practicum experiences developed and sequenced to provide knowledge and skills in the evidence-based diagnosis and treatment of hearing and balance disorders across the lifespan. The program culminates in a fourth year externship taken after other academic and clinical requirements have been completed.

Western Washington University also offers diagnostic and rehabilitative audiological services at its campus Speech-Language-Hearing Clinic. The Clinics at Western provide a unique educational opportunity to graduate students in both Audiology and Speech-Language Pathology while providing a valuable community service. Students who intend to seek employment in this profession, whether in a public school, clinic, rehabilitation center or hospital setting, are advised that certification/licensure at the state and/or national levels is required. Out-of-state students should recognize that other requirements may exist for employment in different geographic locations.

#### Prerequisites

Students must have completed an undergraduate major in Communication Sciences and Disorders (CSD) or an equivalent professional core curriculum. The BA or BS in Communication Sciences and Disorders (Speech Pathology and Audiology) must have been completed within the past five years in order to be considered as an applicant for the graduate program in CSD. Grade point average requirements are consistent with those of the Graduate School.

Students must have completed the Graduate Record Exam, General Test or REVISED General Test beginning August 2011. Students who are not native speakers of English must demonstrate competence in written and spoken English. This can be done by submitting a satisfactory score on the international TOEFL, taken within one year of the date of application. A minimum composite score of 600 is required for the paper-based test; the scaled score for the computer-based test is 250; the Internet-based minimum score is 100. The TOEFL scores must be on file in the Graduate School prior to receipt of the application for graduate study.

# COMMUNICATION SCIENCES AND DISORDERS

## Application Information

Enrollment is limited to 12 new graduate students per year.

**Admit Quarter:** Fall quarter only. The clinical doctorate in audiology is a lock-step program that offers courses in sequence once a year beginning in the fall.

**Deadline:** Application deadline is February 1.

**TA Deadline:** Application deadline is February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011. (No test scores are required if an applicant holds an advanced degree — MA, MS, PhD.)

## Supporting Materials:

- Application with \$100 fee (subject to change)
- Three recent letters of reference
- One official transcript from every school attended (no more than two years old)
- One-page statement of purpose
- One-page résumé

## Requirements (169 credits)

- CSD 501 - Counseling in Audiology
- CSD 504 - Audiology Grand Rounds
- CSD 505 - Audiology Clinical Levels
- CSD 506 - Seminar: Professional Issues and Practices
- CSD 507 - Capstone Project/Research Project
- CSD 508 - Audiology Research Methods I
- CSD 509 - Audiology Research Methods II
- CSD 561 - Advanced Audiology I
- CSD 562 - Advanced Audiology II
- CSD 563 - Seminar: Aural Rehabilitation
- CSD 564 - Advanced Clinical Practice in Aural Rehabilitation
- CSD 565 - Psychoacoustics
- CSD 566 - Auditory Neurophysiology
- CSD 567 - Seminar: Hearing Conservation
- CSD 568 - Advanced Clinical Practicum in Audiology
- CSD 570 - Medical Audiology
- CSD 571 - Hearing Aids I
- CSD 572 - Hearing Aids II
- CSD 573 - Seminar: Speech Acoustics
- CSD 577 - Pediatric Audiology
- CSD 578 - Seminar: Electrophysiological Testing
- CSD 579 - Aging and the Ear
- CSD 581 - Advanced Electrophysiologic Testing
- CSD 583 - Advanced Medical Audiology
- CSD 584 - Advanced Amplification
- CSD 587 - Cochlear Implants
- CSD 589 - Auditory Processing Disorder Assessment and Management
- CSD 590 - Educational Audiology
- CSD 591 - Pediatric Aural (Re)habilitation
- CSD 593 - Balance Disorder Assessment
- CSD 594 - Balance Disorder Treatment
- CSD 595 - Tinnitus Assessment and Management
- CSD 596 - AuD Internship
- CSD 692 - Fourth Year Externship



## Additional Information

### Clinical Competence

In addition to meeting academic requirements, students specializing in audiology must demonstrate satisfactory competence in diagnosis and treatment of hearing and balance disorders across the lifespan. Refer to course description for additional information. No student in CSD may participate as a primary clinician in the clinic or on an internship until cleared by the Washington State Office of Superintendent of Public Instruction and the Federal Bureau of Investigation via a background check. Clearance is valid for specified time frames.

Procedure and fee information are provided to students upon acceptance into the graduate program. At times, the requirements for the completion of clinical practicum courses may fall outside the regular University calendar. Contact the department for further details. Students are permitted to retake a clinical practicum (CSD 564 and CSD 568) only once. If a grade of B is not achieved in the retake, students will not be permitted to continue in the practicum courses.

Not everyone is suited to work with clients in the clinical fields of speech-language pathology and audiology even though the student may maintain a satisfactory academic record. The faculty and staff of the Department of Communication Sciences and Disorders thus reserve the right to counsel students with this in mind, and to recommend a change of academic focus for the student who appears to have personality traits that would prevent the student from being successful in the discipline.

### Internship

An internship is required for all CSD students. This experience provides an opportunity for each student to refine and expand basic clinical skills by participating in a supervised, full-time work experience in a professional setting. The terminal objective of this training phase is to facilitate each clinician's transition from student in training to competent entry-level professional. As such, the internship is taken after other academic and clinical requirements have been completed with the exception of the capstone project. In addition to the required full-time externship (CSD 692), students must also complete three part-time internships (CSD 596). Both the full-time and part-time placements require assignment to clinical settings off campus (e.g., schools, hospitals, private clinics, et cetera).

### Audiology Clinical Levels

All graduate students are required to pass, with a "satisfactory" grade, four audiology clinical level examinations prior to completing the clinical doctorate degree in audiology. These clinical levels are administered at the end of each quarter beginning in the winter quarter of the first year (CSD 505).

### Capstone Project

All graduate students are required to complete a capstone project prior to completing their clinical doctorate in audiology. Capstone projects carry variable credit and include research-based and non-research based projects.

## Communication Sciences & Disorders Courses

### CSD 210 - Communication and the Mind

This course provides a basic overview of our knowledge of language and what it can tell us about the nature of the mind, and vice versa. It explores theories of cognitive and language development and traces development from infancy to adolescence. It covers the structure of sentences (syntax), words (morphology), and

sound shape (phonetics, phonology), and how these are typically acquired, mentally represented, and processed by humans. In addition, students learn about the relationships between social cognition (theory of mind), language, and social competence, discuss communication disorders and differences, and the social cognitive affects of communication disorders on children and adults.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

## COMMUNICATION SCIENCES AND DISORDERS

### **CSD 251 - Introduction to Communication Disorders**

An introduction to the disciplines of speech-language pathology and audiology; survey of speech, language and hearing processes and disorders.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 253 - Speech and Hearing Sciences for the Liberal Arts**

Basic concepts of speech production, speech acoustics, hearing and speech perception. Includes lab.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### **CSD 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **CSD 301 - Writing Lab**

Instruction and practice in writing; includes opportunities for multi-drafting, revision, and reflection. Repeatable up to 2 credits.

**Prerequisites & Notes:** ENG 101.

**Credits:** 1

**Grade Mode:** Letter

### **CSD 352 - Anatomy and Physiology of Speech Mechanisms**

Structure and function of organs concerned with respiration, phonation, resonance, and articulation.

**Prerequisites & Notes:** Junior or senior status, or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **CSD 353 - Speech Science**

Acoustic and articulatory characteristics of the speech signal and their relation to speech production and perception. Lab required.

**Prerequisites & Notes:** junior standing, CSD 352, CSD 356, CSD 371

**Credits:** 5

**Grade Mode:** Letter

### **CSD 354 - Speech and Language Development in Children**

Typical speech and language acquisition; its impact on the developing child; origins and growth of symbolic processes, developmental norms; factors influencing learning of language and speech.

**Prerequisites & Notes:** Junior or senior status, or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 356 - Phonetics and Phonology**

Training in recognition and production of sounds of spoken English through use of the International Phonetic Alphabet. Explanation of phonology and phonological processes and clinical analysis of phonological processing errors. Lab required.

**Prerequisites & Notes:** Junior or senior status, or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **CSD 361 - Language Disorders, Birth to Five**

Etiologies of language learning disabilities in children from birth to five years; diagnosis and treatment procedures.

**Prerequisites & Notes:** CSD 354

**Credits:** 4

**Grade Mode:** Letter

### **CSD 371 - Hearing Science**

Introduction to the nature of sound and its measurement. The structure and function of the auditory mechanism.

**Prerequisites & Notes:** CSD 352

**Credits:** 3

**Grade Mode:** Letter

### **CSD 372 - Anatomy, Physiology, and Disorders of Hearing and Balance**

Structure, function, and disorders of auditory and balance mechanisms.

**Credits:** 4

**Grade Mode:** Letter

### **CSD 381 - Physiological and Psychological Bases of Hearing**

The study of the structure and function of the auditory system. Analysis of significant theories in speech acoustics and speech perception. Examination of the effects of hearing impairment on speech perception.

**Prerequisites & Notes:** CSD 353, CSD 371 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

#### **CSD 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### **CSD 401 - Writing Lab**

Instruction and practice in writing; includes opportunities for multi-drafting, revision, and reflection.

**Prerequisites & Notes:** ENG 101.

**Credits:** 2

**Grade Mode:** Letter

#### **CSD 450 - Neuroanatomy for Speech Pathology and Audiology**

Normal and abnormal structures of the human nervous system as they pertain to speech, language and hearing. Particular emphasis on sensory and motor pathways, localization and lateralization.

**Prerequisites & Notes:** CSD 352 or equivalent; senior/graduate standing.

**Credits:** 4

**Grade Mode:** Letter

#### **CSD 451 - Language Disorders II**

Diagnosis and treatment procedures for school-age children with language-learning impairments.

**Prerequisites & Notes:** CSD 354, CSD 361

**Credits:** 3

**Grade Mode:** Letter

#### **CSD 453 - Introduction to Speech Disorders**

The nature, assessment, and treatment of speech sound disorders and stuttering will be introduced.

**Prerequisites & Notes:** CSD 352.

**Credits:** 3

**Grade Mode:** Letter

#### **CSD 457 - Clinical Processes**

Current principles, methods and materials used in the assessment and treatment of a variety of communication disorders. Directed observation. Writing proficiency course.

**Prerequisites & Notes:** CSD 354, CSD 361, CSD 373, CSD 451

**Credits:** 5

**Grade Mode:** Letter

#### **CSD 458 - Application of Clinical Processes to CSD**

Application of the clinical processes to service delivery, documentation, administrative procedures, and professional writing.

**Prerequisites & Notes:** CSD 457, permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

#### **CSD 459 - Lab: Beginning Clinical Practice in Speech-Language Therapy**

Assistant clinician experience. Lab required. S/U grading.

**Prerequisites & Notes:** CSD 458; minimum 25 hours documented speech-language pathology, audiology and/or aural rehabilitation observation; CSD 458, CSD 459 concurrent with instructor permission.

**Credits:** 1

**Grade Mode:** S/U

#### **CSD 460 - Assess & Intervention in CSD**

Current principles, methods, and application of research-based theories to a dynamic clinical process which includes identification, prevention, assessment, and intervention for communication disorders. Lab required.

**Prerequisites & Notes:** CSD 354, CSD 361, CSD 373, CSD 451

**Credits:** 4

**Grade Mode:** Letter

#### **CSD 462 - Audiometric Testing**

Introduction to the theory and application of pure tone, immittance and speech audiometry to the assessment of hearing function; implications for rehabilitation.

## COMMUNICATION SCIENCES AND DISORDERS

**Prerequisites & Notes:** CSD 371

**Credits:** 4

**Grade Mode:** Letter

### **CSD 463 - Aural Rehabilitation**

Listening training, speech reading, orientation to amplification devices, and coping skills for the aurally handicapped.

**Prerequisites & Notes:** CSD 371

**Credits:** 4

**Grade Mode:** Letter

### **CSD 464 - Clinical Practice in Aural Rehabilitation**

Supervised clinical practice in the (re)habilitation of the deaf and hard of hearing. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** CSD major with minor in audiology or instructor permission; CSD 458, CSD 459, CSD 463; minimum 25 hours of speech-language pathology/audiology/aural rehabilitation observation required.

**Credits:** 2

**Grade Mode:** S/U

### **CSD 466 - Medical Audiology**

Pathologies of the hearing mechanism and their auditory manifestations. Discussion with physicians regarding diagnosis, referrals and report writing.

**Prerequisites & Notes:** CSD 371, CSD 462

**Credits:** 3

**Grade Mode:** Letter

### **CSD 468 - Clinical Practicum in Audiology**

Supervised clinical practice in audiological evaluation. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** CSD major with a minor in audiology or instructor permission; CSD 371, CSD 462; 25 hours of documented speech-language pathology/audiology/aural rehabilitation observations.

**Credits:** 2

**Grade Mode:** S/U

### **CSD 482 - Clinical Hearing Technology**

Study of history, development, and use of emerging technologies and special clinical instrumentation for the evaluation of hearing, auditory function, and balance.

**Prerequisites & Notes:** satisfactory completion of CSD 462 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 483 - Amplification and Sensory Systems**

Study of history, development, and use of amplification and other sensory devices for treatment of hearing loss and auditory processing deficits.

**Prerequisites & Notes:** satisfactory completion of CSD 462 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 485 - Children With Hearing Loss in School**

This course will introduce the student to the needs of the hearing impaired child in the public school environment, the public school laws affecting the placement of such children, and the types of remediation that occur in this setting.

**Prerequisites & Notes:** CSD 352

**Credits:** 3

**Grade Mode:** Letter

### **CSD 486 - Infants and Children With Hearing Loss**

Developmental milestones of auditory functions, implications of childhood hearing loss, and observation of pediatric assessment utilizing current evaluation techniques.

**Prerequisites & Notes:** CSD 371, CSD 462, or CSD 371 and permission of the instructor.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 487 - Fundamentals of Hearing Conservation**

Noise as a public health hazard. The effect of noise on hearing. Noise abatement, control and protection. Federal and state noise regulations and compensation for noise induced hearing loss (NIHL).

**Prerequisites & Notes:** CSD 371, CSD 462.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 488 - Hearing Loss in Adulthood**

Study of the nature and implications of hearing loss across the adult age spectrum. Anatomic and physiologic influences of aging on the auditory system and how these changes influence auditory function and communication will be highlighted.

**Prerequisites & Notes:** satisfactory completion of CSD 462 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

**CSD 490 - Social, Political, Cultural Aspects of Communication Disorders**

Introduction to social, political, and cultural forces impacting communication and communication disorders. Overview of theories and research tools that guide our observations of these forces. Emphasis on becoming culturally competent in providing educational and health care services to diverse client population.

**Prerequisites & Notes:** CSD 251, CSD 353, CSD 354, CSD 361, CSD 373, and CSD 451

**Credits:** 3

**Grade Mode:** Letter

**CSD 491 - Senior Research Project**

Research-based writing or field project under direction of faculty advisor. Must be taken Fall, Winter and Spring quarters of senior year for 2 credits each quarter. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** satisfactory completion of CSD major courses or advisor permission

**Credits:** 2

**Grade Mode:** Letter

**CSD 499 - Field Placement/Observation in Speech-Language Pathology or Audiology**

Off-campus field experience in an approved setting designed to introduce students to management of communication disorders. Subject to availability of suitable site. Repeatable up to 6 credits. S/U grading.

**Prerequisites & Notes:** Completion of undergraduate major requirements and instructor permission.

**Credits:** 1-6

**Grade Mode:** S/U

**CSD 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**CSD 501 - Counseling in Audiology**

Contemporary theories and techniques for counseling individuals with auditory and balance disorders.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 3

**Grade Mode:** Letter

**CSD 502 - Research Methods in Communication Sciences and Disorders**

Topics include research strategies and designs, measurement issues, evaluation criteria, treatment efficacy, and organization and analysis of data. Introduces students to group and single-subject research designs and qualitative research. Engages students in completing a research project.

**Credits:** 4

**Grade Mode:** Letter

**CSD 503 - Professional Development in CSD**

This course provides conference-based opportunities for practicing professionals to engage in learning about current research and treatment strategies on a variety of special education issues, including communication disorders. The courses are intended for the professional development of the conference attendee. The WWU credits may not be used as elective credits in a graduate degree program.

**Prerequisites & Notes:** Entry level degree in professional area of specialization.

**Credits:** 2

**Grade Mode:** S/U

**CSD 504 - Audiology Grand Rounds**

Student presentations of patient cases and clinical topics in audiology. Repeatable up to 10 credits including original course. S/U grading.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 1

**Grade Mode:** S/U

**CSD 505 - Audiology Clinical Levels**

Clinical competency assessment at each of four successive clinical levels. Repeatable up to 8 credits including original course. S/U grading.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 2

**Grade Mode:** S/U

## COMMUNICATION SCIENCES AND DISORDERS

### **CSD 506 - Seminar: Professional Issues and Practices**

Current and future audiology practice models and related professional issues. The course will be taught in seminar format and across multiple quarters. Different professional issues and practice patterns will be addressed each quarter. Repeatable to a maximum of 12 credits including original course.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 507 - Capstone Project/Research Project**

Research based project or non-research project (i.e. treatise on clinical procedures relative to diagnosis or remediation, informational materials relevant for community workshops, instructional videos, interactive software, etc.). Repeatable up to 9 credits including original course.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 1-3

**Grade Mode:** Letter

### **CSD 508 - Audiology Research Methods I**

Introduction to research in the field of Audiology.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 509 - Audiology Research Methods II**

Topics include the scientific method, research strategies and designs, data collection and analysis, and interpretation of results.

**Prerequisites & Notes:** CSD 508.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 510 - Assessment and Treatment of Resonance Disorders**

A review of the etiologies and nature of cleft lip and palate and communication disorders associated with cleft lip and palate; and diagnostic and intervention approaches for treating cleft and non-cleft resonance disorders.

**Prerequisites & Notes:** CSD 352, CSD 450, CSD 459 or equivalent, or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 515 - Seminar: Phonology**

Current topics and issues on typical and disordered phonology, and the phonological basis of reading and writing, with a special emphasis on clinical implications of recent research findings.

**Prerequisites & Notes:** CSD 373 and graduate status.

**Credits:** 4

**Grade Mode:** Letter

### **CSD 540 - Essential Audiology for Speech Language Pathologists**

Essential knowledge and skills required of speech-language pathologists in providing optimal clinical services to clients with hearing loss and auditory processing issues.

**Prerequisites & Notes:** CSD 462 and CSD 463, or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 541 - Professional Issues in Speech-Language Pathology**

Current information regarding ethical and professional issues essential for Speech-Language Pathologist (SLP) practice in today's diverse and demanding work settings.

**Prerequisites & Notes:** Graduate status in CSD.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 542 - Adult and Pediatric Dysphagia**

Pathophysiology and evaluation of swallowing disorders; diagnostic evaluation and management/rehabilitation in adults, infants, and children.

**Prerequisites & Notes:** CSD 352; CSD 450; CSD 546; CSD 585; or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **CSD 546 - Strategies for Assessment in CSD**

Discussion of the diagnostic processes including formal and informal assessment, report writing, and strategies for optimal assessment practices. S/U grading.

**Prerequisites & Notes:** Graduate status. CSD 549 or concurrent.

**Credits:** 1

**Grade Mode:** S/U

### **CSD 549 - Clinical Practicum**

Initial graduate experience in supervised clinical practicum.

**Prerequisites & Notes:** CSD Graduate status  
**Credits:** 2  
**Grade Mode:** S/U

**CSD 550 - Voice Disorders and Therapy**

Pathological and psychological states affecting voice production. Functional psychogenic and organic problems of pitch, quality and loudness. Experience in diagnosis and evaluation of voice disorders. Developing techniques and learning methods for treatment and therapy. An introduction to cancer of the larynx and post laryngectomy rehabilitation. Lab required.

**Prerequisites & Notes:** CSD 351, CSD 352, CSD 450 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter

**CSD 552 - Assessment Practicum in Speech-Language Pathology**

This class is an on-campus practicum using specialized methods, tests and instruments used in the assessment and evaluation of a variety of communication disorders.

**Prerequisites & Notes:** CSD 558; and instructor permission.  
**Credits:** 2  
**Grade Mode:** Letter

**CSD 553 - Seminar: Preschool Language Development and Disorders**

Current topics and issues on typical and disordered language in preschool children, as well as factors related to language development. Special emphasis on clinical implications of recent research findings.

**Prerequisites & Notes:** CSD 354, CSD 361, CSD 515  
**Credits:** 4  
**Grade Mode:** Letter

**CSD 554 - Stuttering**

Analysis of current models and recent research on stuttering and cluttering disorders; chief rationale for therapy and evaluation of therapy procedures and results. Review and practice of clinical assessment and intervention.

**Credits:** 5  
**Grade Mode:** Letter

**CSD 555 - Seminar: Language Disorders in the School Age Child**

Current topics and issues on typical and disordered language in school-age children, as well as alternate treatment approaches for older children. Special emphasis on clinical implications of recent research findings.

**Prerequisites & Notes:** CSD 451, CSD 553  
**Credits:** 4  
**Grade Mode:** Letter

**CSD 556 - Assessment and Treatment of Aphasia & Related Acquired Language Disorders**

Facilitation of student knowledge and skill with multimodal acquired language impairments, including etiology, characteristics, neuroanatomical, psychological, linguistic, and cultural correlates. Includes differential diagnosis, assessment, and treatment methods. Focus on adult populations.

**Credits:** 5  
**Grade Mode:** Letter

**CSD 558 - Graduate Clinical Practice in Speech-Language Pathology**

Supervised clinical practicum. Must be completed with a grade of B- or better. Repeatable to a maximum of 9 cr.

**Prerequisites & Notes:** Satisfactory completion of CSD 549 and permission of instructor.  
**Credits:** 1-3  
**Grade Mode:** Letter

**CSD 559 - Speech-Language Pathology Practicum**

Must be completed with a grade of B- or better.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 2  
**Grade Mode:** Letter

**CSD 560 - Speech-Language Pathology Practicum**

Supervised clinical practicum. S/U grading. Offered summer only.

**Prerequisites & Notes:** CSD 549, CSD 558  
**Credits:** 2  
**Grade Mode:** S/U

**CSD 561 - Advanced Audiology I**

Study of basic auditory correlates and advanced

## COMMUNICATION SCIENCES AND DISORDERS

diagnostic audiometric procedures.

**Prerequisites & Notes:** CSD 371, CSD 462; instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 562 - Advanced Audiology II**

Theory and application of advanced diagnostic audiometric procedures.

**Prerequisites & Notes:** CSD 561

**Credits:** 3

**Grade Mode:** Letter

### **CSD 563 - Seminar: Aural Rehabilitation**

Issues related to the hearing-impaired population.

**Prerequisites & Notes:** CSD 463 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 564 - Advanced Clinical Practice in Aural Rehabilitation**

Supervised practice in rehabilitation of individuals who are deaf or hard of hearing. Must be completed with a grade of B or better. Repeatable up to 16 credits including original course.

**Prerequisites & Notes:** CSD 458; CSD 459; CSD 463; permission of instructor, and a minimum of 25 hours of documented speech-language pathology/ audiology and rehabilitation observation.

**Credits:** 2

**Grade Mode:** Letter

### **CSD 565 - Psychoacoustics**

Application of standard psychophysical techniques and theory of signal detection to audiologic research.

**Prerequisites & Notes:** CSD 561 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 566 - Auditory Neurophysiology**

The ear as a transducer and analyzer; electrophysiological and mechanical properties of the ear.

**Prerequisites & Notes:** CSD 561; instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 567 - Seminar: Hearing Conservation**

Noise as a public health hazard; the effects of noise on hearing; noise abatement, control and protection; federal and state noise regulations and compensation.

**Prerequisites & Notes:** CSD 562

**Credits:** 3

**Grade Mode:** Letter

### **CSD 568 - Advanced Clinical Practicum in Audiology**

To be taken in sequence; must have a minimum of 25 hours of documented speech-language pathology/audiology and rehabilitation observations. Clinical practicum designed to advance skills in audiology. Must be completed with a grade of B or better. Repeatable up to 16 credits including original course.

**Prerequisites & Notes:** CSD 371, CSD 462 or permission of instructor; to be taken in sequence; and a minimum of 25 hours of documented speech-language pathology/audiology and rehabilitation observations.

**Credits:** 2

**Grade Mode:** Letter

### **CSD 569 - Advanced Clinical Practice in Aural Rehabilitation**

Supervised clinical practicum. S/U grading. Offered summer only. Repeatable to 4 credits.

**Prerequisites & Notes:** Satisfactory completion of CSD 458, CSD 459, CSD 463, and permission of instructor.

**Credits:** 2

**Grade Mode:** S/U

### **CSD 570 - Medical Audiology**

Pathologies of the hearing mechanism and their auditory manifestations. Discussion with physicians regarding diagnosis, referrals and report writing.

**Prerequisites & Notes:** CSD 371, CSD 462, CSD 561

**Credits:** 3

**Grade Mode:** Letter

### **CSD 571 - Hearing Aids I**

History, development and description of hearing aids and other amplification devices. Research into the electro-acoustic characteristics of hearing aids.

**Prerequisites & Notes:** CSD 462 or permission of instructor.



**Credits:** 3

**Grade Mode:** Letter

### **CSD 572 - Hearing Aids II**

Evaluation procedures and fitting techniques for dispensing hearing aids and other amplification devices. Auditory training and counseling techniques covered as well as special instrumentation.

**Prerequisites & Notes:** CSD 571

**Credits:** 3

**Grade Mode:** Letter

### **CSD 573 - Seminar: Speech Acoustics**

In-depth study of the acoustic speech signal. Analysis of significant theories in speech production/acoustics. Application of relevant acoustic principles in the evaluation and remediation of communicative disabilities.

**Prerequisites & Notes:** CSD 353 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 574 - Seminar: Speech Perception**

Critical analysis of current issues in speech perception. Examination of the effects of communication disabilities on speech perception.

**Prerequisites & Notes:** CSD 353, CSD 573 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 575 - Counseling in Communication Disorders**

Contemporary theories and techniques of counseling individuals with communication disorders and their families.

**Prerequisites & Notes:** Graduate status

**Credits:** 3

**Grade Mode:** Letter

### **CSD 576 - Cognitive Communication Disorders**

Processes and theories of cognitive functions; assessment and management of cognitive disorders associated with acquired brain injury.

**Prerequisites & Notes:** CSD 450 and CSD 556; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **CSD 577 - Pediatric Audiology**

Developmental milestones of auditory function, implications of childhood hearing loss and supervised testing of pediatric patients utilizing basic and advanced testing techniques.

**Prerequisites & Notes:** CSD 371, CSD 462, CSD 568; instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 578 - Seminar: Electrophysiological Testing**

Current topics and issues in specialized areas of averaged electro-encephalic audiometry and otoacoustic emissions; research trends and problems. Lab required.

**Prerequisites & Notes:** CSD 561, CSD 568 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 579 - Aging and the Ear**

Anatomical and physiological influences of aging on the auditory mechanism and how these changes influence overall auditory function and communication.

**Prerequisites & Notes:** CSD 561, CSD 562

**Credits:** 3

**Grade Mode:** Letter

### **CSD 580 - Communication Disorders in the Public Schools**

Role of the professional in organizing and directing a speech-language therapy or audiology program in the public school setting. Required for public school certification.

**Prerequisites & Notes:** Second year graduate standing or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 581 - Advanced Electrophysiologic Testing**

Assessment of the auditory system via early, middle, late, and cognitive auditory evoked potentials.

**Prerequisites & Notes:** CSD 578.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 582 - Medical Speech Pathology**

## COMMUNICATION SCIENCES AND DISORDERS

Current topics and issues related to the practice of speech pathology in a medical/clinical setting.

**Prerequisites & Notes:** Second year graduate standing or instructor permission

**Credits:** 2

**Grade Mode:** Letter

### **CSD 583 - Advanced Medical Audiology**

Focus on advanced level audiologic protocols for diagnosis and management of congenital and acquired disorders of the auditory and vestibular systems.

**Prerequisites & Notes:** CSD 570.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 584 - Advanced Amplification**

Focus on hearing assistive technologies and sensory devices for treatment of hearing loss and auditory processing deficits.

**Prerequisites & Notes:** CSD 572.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 585 - Neuromotor Speech Disorders**

Current literature review and discussion of the nature of neurologically based speech disorders (dysarthrias and apraxia). Examination and practice of clinical intervention methods.

**Prerequisites & Notes:** CSD 450, CSD 556 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **CSD 587 - Cochlear Implants**

Focus on the cochlear implant, including technology, patient candidacy, medical process, post-implantation aural (re)habilitation, and controversial issues surrounding cochlear implantation.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 588 - Seminar in Augmentative and Alternative Communication**

Focus on evaluation and intervention for children, adolescence and adults with moderate to severe congenital or acquired disorders in speech and language who require augmentative and alternative models for oral or written

communication.

**Prerequisites & Notes:** CSD 552, CSD 553, CSD 555, CSD 558 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **CSD 589 - Auditory Processing Disorder Assessment and Management**

History, definition, and the role of audiologists in assessment, diagnosis, and management of patients with (central) auditory processing disorder.

**Prerequisites & Notes:** CSD 562.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 590 - Educational Audiology**

This course will focus on the role of the audiologist in the school system, audiologic services, and service delivery models to assist school-aged children who are deaf or hard of hearing, and children who have auditory processing difficulties.

**Prerequisites & Notes:** Admission to the Clinical doctorate in Audiology (AuD) program.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 591 - Pediatric Aural (Re)habilitation**

Course will focus on the provision of auditory rehabilitation services to infants and young children who are deaf or hard of hearing.

**Prerequisites & Notes:** CSD 563.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 592 - Seminar in Autism**

Readings and discussion of theoretical and applied issues relating to the identification, diagnosis and treatment of Autism Spectrum Disorders. Case studies are developed and presented using a variety of clinical forums.

**Prerequisites & Notes:** Graduate status or instructor approval.

**Credits:** 3

**Grade Mode:** Letter

### **CSD 593 - Balance Disorder Assessment**

Current technology and procedures involved in the clinical assessment of balance disorders.

**Prerequisites & Notes:** CSD 562.

**Credits:** 3  
**Grade Mode:** Letter

**CSD 594 - Balance Disorder Treatment**

Current technology and procedures involved in the treatment of balance disorders.

**Prerequisites & Notes:** CSD 593.  
**Credits:** 3  
**Grade Mode:** Letter

**CSD 595 - Tinnitus Assessment and Management**

Clinical assessment and treatment of tinnitus and other sound tolerance conditions.

**Prerequisites & Notes:** CSD 562.  
**Credits:** 3  
**Grade Mode:** Letter

**CSD 596 - AuD Internship**

Supervised, part-time off-campus practice experience. Repeatable up to six credits including original course. S/U grading.

**Prerequisites & Notes:** CSD 564 and CSD 568.  
**Credits:** 2  
**Grade Mode:** S/U

**CSD 598 - Internship in Speech-Language Pathology or Audiology**

Supervised, part-time experience providing opportunities to develop and demonstrate clinical competence in an approved setting. Placement is dependent on a suitable site. S/U grading. Repeatable up to 8 credits.

**Prerequisites & Notes:** Second-year graduate status; completion of plan of study; instructor permission; B in last clinic and a minimum of 200 clinic hours; enroll in clinic the quarter prior to internship and have all administrative and clinical records current.  
**Credits:** 1-4  
**Grade Mode:** S/U

**CSD 599 - Intern Speech/Lang Path/Aud**

Supervised, full-time, off-campus experience providing opportunities to develop and demonstrate clinical competence in an approved setting. Placement is dependent on a suitable site. S/U grading. Repeatable up to 16 credits.

**Prerequisites & Notes:** Second-year graduate status; completion of plan of study; instructor permission; B in last clinic and minimum of 225 clinic hours, 25 observation enroll in clinic the

quarter prior to internship and have all administrative/clinical records current.

**Credits:** 8  
**Grade Mode:** S/U

**CSD 690 - Thesis**

**Credits:** 1-9  
**Grade Mode:** Letter

**CSD 691 - Non-Thesis Option**

Writing based on research or clinical projects.

**Credits:** 3  
**Grade Mode:** Letter

**CSD 692 - Fourth Year Externship**

Full time year long clinical externship placement will allow students to develop their skills as an audiologist. An externship may consist of placement at one site or simultaneous or sequential rotations at multiple sites. Repeatable up to 20 credits including original course. S/U grading.

**Prerequisites & Notes:** CSD 505.  
**Credits:** 5  
**Grade Mode:** S/U

# Communication Studies

## Introduction

We teach communication studies that nurture inclusive civil discourse, critical thinking, and cooperative solutions in a diverse global community. We offer opportunities to develop strong communication skills within a challenging liberal arts program.

Our major program prepares students to speak and write proficiently, think critically, apply communication concepts competently, work cooperatively in small groups, and reflect on ethical dimensions of their actions. We focus on interactive learning in a high quality communication studies curriculum. We assist planning so that students effectively manage time to graduation. We emphasize carefully guided, performance-based learning characterized by a low student-to-faculty ratio in the classroom. And we offer the opportunity to participate in a nationally recognized forensics program. Faculty and staff encourage a sense of community. We engage with students to support their wellbeing and success. Through the talents, intellectual curiosity, and versatility of our diverse faculty we have established a strong intercultural and global orientation. We provide General Education Requirement courses that are crucial to the university's undergraduate communication education, and our communication theory and applications courses also instruct other majors. We are committed to community partnerships for strong service-learning and internships, and we serve the citizens of Washington in progressive communication instruction.

## Communication Studies

The Department of Communication Studies offers a Bachelor of Arts in Communication Studies with courses in interpersonal and small group communication, organizational communication,

mass communication, intercultural communication, communication technologies, research methods, ethics, rhetoric, persuasion, public speaking, and debate.

## Faculty

**STEVEN G. WOODS** (2001) Chair and Professor. BS, MA, Kansas State University; PhD, Florida State University.

**RITA DANIELS** (2016) Associate Professor. BAE, MPhil, University of Education, Winneba, Ghana; MA, Ohio University; PhD, West Virginia University.

**MICHAEL KARLBERG** (1997) Professor. BA, University of California; MA, PhD, Simon Fraser University.

**EE LIN LEE** (2005) Associate Professor. BA, MA, Western Michigan University; PhD, University of New Mexico.

**HELEN MORGAN PARMETT** (2012) Assistant Professor. BA University of Vermont; MA, University of Pittsburgh; PhD, University of Minnesota.

**TARA PERRY** (2005) Associate Professor. BA, Western Washington University; MA, PhD, Washington State University.

**KAREN ROHRBAUCK STOUT** (2000) Professor. BA, University of Puget Sound; MA, University of Montana; PhD, University of Utah.

**RAE LYNN SCHWARTZ-DUPRE** (2006) Associate Professor. BA, University of Vermont; MA, Wake Forest University; PhD, University of Iowa.

**JIANGLONG WANG** (1989) Professor. BA, Fudan University; MA, PhD, Northwestern University.

## Becoming a Communication Studies Major

Students wishing to declare a major in Communication Studies must complete the pre-requisites and then apply to become a major by submitting a portfolio to the department. Details regarding the pre-requisites and application process can be found on the Communication Studies, BA page.

# Bachelor of Arts

## Communication Studies, BA

Department of Communication Studies, College of Humanities and Social Sciences

**60 credits**

## Introduction

We teach communication studies that nurture inclusive civil discourse, critical thinking, and cooperative solutions in a diverse global community. We offer opportunities to develop strong communication skills within a challenging liberal arts program.

## Why Consider a Communications Studies Major?

Communication competencies are essential for active participation in democratic societies, as is the ability to think critically about the nature and purpose of communication, in all its forms, in our rapidly changing and increasingly interdependent world. In addition, employers in the private, public, and non-profit sectors place a very high value on communication competencies combined with critical thinking skills. Communication Studies graduates therefore qualify for a wide variety of careers.

In this context, the Department of Communication Studies offers students the opportunity to develop competencies in speech, analytical writing, and collaborative team work. In addition, the department offers opportunities for students to develop their capacity to engage in critical thinking, to apply communication concepts, to understand methods for the generation of knowledge, and to reflect on the ethical dimensions of their actions.

Contact Information		
<b>Department Chair</b> Steven Woods, Ph.D. Communications Facility 275 360-650-7367 Steven.Woods@wwu.edu	<b>Department Manager</b> Ann Reynolds Communications Facility 295 360-650-3870 Ann.Reynolds@wwu.edu	For pre-major advising, visit the Communication Studies office in Communications Facility 295.

Sample Careers
Consumer Affairs Specialist   Personnel Specialist   Public Relations Specialist   Promotions Manager   Recruiter   Mediator   Training and Development Specialist   Bank Officer   Real Estate Agent

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

## How to Declare (Admission and Declaration Process):

Students contemplating a major in Communication Studies are encouraged to register as pre-majors with the Communication Studies department in Communications Facility 295, in order to ensure that they receive appropriate advising and relevant communications from the department.

Students wishing to declare a major in Communication Studies must submit a portfolio to the department (see below) in order to be admitted through a competitive selection process.

Admission to the major will, in part, be determined by the number of applicants and their qualifications in any given quarter. Cumulative grade point average (GPA) will be one of the major criteria for admission. In most quarters, the average GPA of successful applications is above 3.0. Other factors considered by faculty when selecting communication studies majors are writing samples, work and service experiences with diverse populations, references, and seniority at WWU.

Before applying to become a Communication Studies major, students must:

- Complete any one of the following courses with a B- or better: COMM 101, COMM 224, COMM 225, COMM 230, COMM 235, COMM 240, COMM 260.
- Complete COMM 220, with a B- or better.
- Complete at least 60 credits of WWU credits or approved transfer credits with a GPA of 2.5 or above.

Once these requirements have been met, students can submit a portfolio of their work on or before Monday of the third week of fall, winter and spring quarters. The faculty will then review the portfolios and announce the names of successful applicants before the end of each quarter. Students are allowed to make a maximum of two application attempts.

The portfolio will include the following items:

# COMMUNICATION STUDIES

- Transcripts of all college work completed to date.
- A letter of intent to major in communication studies.
- A résumé including course of study, work experience, recreational and a vocational activities, internships, awards and honors, and public service activities.
- Two samples of the student's collegiate writing assignments including best research paper.
- Three references from employers, teachers, or supervisors. References should include name, occupation, title, phone number, and email address of each person serving as a reference.
- Transfer students must include at Transcript Equivalency Report (TER) for any transfer credits that will be applied toward the major.
- Academic Honor Code.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Program Requirements

- One of the following introductory COMM courses:
  - COMM 101 - Fundamentals of Speech
  - COMM 224 - Small Group Processes
  - COMM 225 - Communication, Diversity and Controversy
  - COMM 230 - Rhetorical and Social Change
  - COMM 235 - Exposition and Argumentation \*
  - COMM 240 - Media Studies
  - COMM 260 - Communication, Identity and Difference
- One of the following courses that emphasizes library research:
  - COMM 235 - Exposition and Argumentation \*
  - LIBR 201 - Introduction to Research Strategies

\*COMM 235 may be used to fulfill both the introductory COMM course and the library research requirement.
- COMM 220 - Communication Theory
- COMM 398 - Research Methods in Communication
- COMM 498 - Communication Ethics
- Electives: Complete additional credits from the categories below to reach 60 credits total for the major:
  - COMM 100-level courses
  - COMM 200-level courses
  - COMM 300-level courses
  - COMM 400-level courses
  - JOUR 190 - Introduction to Mass Media

**Note regarding electives:**  
Complete at least 20 credits of upper division COMM credits other than COMM 398 and COMM 498  
No more than 6 credits from COMM 236, COMM 300, COMM 339, COMM 400, COMM 436, COMM 450, COMM 451, COMM 452, COMM 459 are allowed to count toward the major.  
Complete 3 Writing Proficiency (WP) COMM courses. WP courses from other departments will not apply toward this requirement.

## Departmental Honors

A communication major who wishes to graduate with honors in communication must achieve a cumulative GPA of 3.75 at WWU.

## Minor

### Communication Studies Minor

Department of Communication Studies, College of Humanities and Social Sciences

**25 credits (minimum)****Introduction**

The field of Communication Studies prepares students to speak and write proficiently, think critically, apply communication concepts competently, work cooperatively in small groups, and reflect on ethical dimensions of their actions. We focus on interactive learning in a high quality curriculum with a low student-to-faculty ratio in the classroom.

**Why Consider a Communication Studies Minor?**

A minor in Communication Studies will be a valuable complement to any major. The concepts and competencies we teach are essential for engaged citizenship and productive employment in every sector.

Contact Information		
<b>Department Chair</b> Steven Woods, Ph.D. Communications Facility 275 360-650-7367 Steven.Woods@wwu.edu	<b>Department Manager</b> Ann Reynolds Communications Facility 295 360-650-3870 Ann.Reynolds@wwu.edu	For pre-major advising, visit the Communication Studies office in Communications Facility 295.
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

**How to Declare (Admission and Declaration Process):**

In order to declare a minor in Communication Studies, students need to go to CF295 for a brief advising session, during which they can declare their minor.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- One course from:
  - COMM 101 - Fundamentals of Speech
  - COMM 224 - Small Group Processes
  - COMM 225 - Communication, Diversity and Controversy
  - COMM 230 - Rhetorical and Social Change
  - COMM 235 - Exposition and Argumentation
  - COMM 240 - Media Studies
  - COMM 260 - Communication, Identity and Difference
- COMM 220 - Communication Theory
- Plus additional COMM courses, including at least one upper-division course, to reach 25 credits total for the minor. JOUR 190 can count as one of the additional COMM courses.
- The minor may include no more than 3 credits from the following:
  - COMM 236 - Intercollegiate Forensics
  - COMM 300 - Directed Independent Study
  - COMM 339 - Practicum in Applied Communication
  - COMM 400 - Directed Independent Study
  - COMM 436 - Advanced Forensics and Debate
  - COMM 450 - Communication Pedagogy I
  - COMM 451 - Communication Pedagogy II
  - COMM 452 - Communication Pedagogy III

## Communication Studies Courses

### COMM 101 - Fundamentals of Speech

Functional approach to effective communication. Emphasizes the application of principles to practical problems in speech for persons with little or no previous public speaking experience. Students with prior public speaking experience are advised to take COMM 235 to satisfy GUR requirements or communication major application requirements.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### COMM 220 - Communication Theory

Survey of human communication focuses on communication theories, concepts and principles ranging from intrapersonal to interpersonal, group, organizational, rhetorical, intercultural, international and mass communication.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### COMM 224 - Small Group Processes

Exploration of the dynamics of human interaction in small group settings. Group tasks include the development of problem-solving skills, utilizing topics of current interest.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### COMM 225 - Communication, Diversity and Controversy

This course is designed to foster the skills necessary for civil engagement and effective dialogue on controversial issues. Students will learn to appreciate, integrate, and effectively challenge diverse perspectives on a number of traditionally-divisive topics.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### COMM 228 - Organizational Communication

Survey of research and theories in organizational communication. Introduces students to communication theories and concepts relating to

workplace practices and processes.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### COMM 230 - Rhetorical and Social Change

Students are introduced to rhetorical theories and modes of criticism that inform the study and pursuit of social change. Emphasis is placed on the important role rhetoric plays in contemporary public discourse and democratic citizenship.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### COMM 235 - Exposition and Argumentation

Theory and practice of principles of reasoned discourse as applied to public discussion of controversial issues. Students with prior background or experience in public speaking should consider COMM 235 as an alternative to COMM 101.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### COMM 236 - Intercollegiate Forensics

Debate, extemporaneous and impromptu speaking, and interpretive reading and other phases of forensics. Repeatable to a maximum of 6 cr. S/U grading.

**Credits:** 2  
**Grade Mode:** S/U

### COMM 240 - Media Studies

This course develops students' ability to think critically about mass media. Media messages and images are examined, as well as the social, political, and historical significance of media.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### COMM 244 - Advocacy Through Media

Introduction to nonprofit information campaigns, social issues marketing and other forms of advocacy through contemporary mass media. Students will learn basic theory and then engage in applied exercises as well as service learning assignments.



**Credits:** 5  
**Grade Mode:** Letter

### **COMM 260 - Communication, Identity and Difference**

This course introduces students to communication theories that explore the ways discourses produce, reinforce, and challenge our understandings of identity — as well as how these identities interact with discourses of difference. By critically engaging the politics of representation, intersectionality, materialism, and power, this course questions identity and difference from hybrid perspectives rather than taking up isolated categories (such as race, gender, sexuality, disAbility, and class) as distinct particulars. The course will particularly emphasize debates within Communication Studies that problematize contemporary discourses and practices of multiculturalism. Students will be encouraged to understand how communication works to oppress certain populations while privileging others.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **COMM 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **COMM 303 - Communication and Conflict**

This course examines the role of communication in conflict. Students will examine the nature and causes of conflict and will explore practical methods as well as theoretical models for dealing with conflict in diverse relational contexts.

**Credits:** 5  
**Grade Mode:** Letter

### **COMM 306 - Conference & Event Planning**

Coursework examines the skills and techniques of event planning by emphasizing communication and organizational skills and theories that contribute to developing and managing successful events. Students work primarily in groups throughout the course, planning hypothetical events as well as actual events as part of service learning based assignments.

**Credits:** 5  
**Grade Mode:** Letter

### **COMM 308 - Communication and Fundraising**

Students will learn verbal and nonverbal communication skills regarding the donor-centered approach to fundraising, fundraising program research, and fundraising budgets. Students will be required to conduct a group fundraising event during the quarter.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **COMM 318 - Professional Communication**

This course integrates business writing, public speaking, collaborative problem solving, and diversity training in a professional development context. Includes theory application and skill development. Students will be working in collaboration with organizations on or off campus.

**Prerequisites & Notes:** Junior status.  
**Credits:** 5  
**Grade Mode:** Letter

### **COMM 319 - Communication and Healthcare**

This course is designed for healthcare professionals and others interested in communication skills for healthcare contexts. Students will be introduced to the theory and practice of effective and caring communication in the healthcare field, with a focus on strengthening and refining skills for communicating with diverse audiences.

**Credits:** 3  
**Grade Mode:** Letter

### **COMM 322 - Civil Discourse as Learning Interaction**

This course explores the nature of public civil discourse and provides instruction and practice in writing and speaking across differences for a range of public audiences in an effort to enhance the collective good. By focusing on the theory and practice of civil discourse as a means for accomplishing effective dialogue, students will develop concepts, attitudes, and skills - both oral and written - needed to be engaged learners and citizens in the campus community and beyond. Course requires participation in Western's Teaching-Learning Academy (TLA), which includes students, faculty, and staff who are working collectively to enhance the University learning environment.

**Prerequisites & Notes:** ENG 101

# COMMUNICATION STUDIES

**Credits:** 4

**Grade Mode:** Letter

## **COMM 325 - Intercultural Communication**

Introduction to intercultural communication. Principles, concepts and various topics in this rapidly growing, important field. Covers the needed knowledge and skills in communicating effectively with people of diverse cultural backgrounds.

**Prerequisites & Notes:** 4 credits Comparative Gender/Multicultural Studies GUR or COMM 220

**Credits:** 5

**Grade Mode:** Letter

## **COMM 327 - Interpersonal Communication**

Focuses on theory and practice in work, family, and social settings. Emphasizes observation, analysis, and skills training in relationship development. Topics include language use, listening, nonverbal behavior and conflict management.

**Prerequisites & Notes:** Junior status

**Credits:** 5

**Grade Mode:** Letter

## **COMM 330 - Environmental Rhetoric**

This class is an exploration of the way the environment is represented rhetorically and the implications this has for public policy and personal action.

**Prerequisites & Notes:** Junior or senior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## **COMM 331 - Advanced Public Speaking**

Theory and practice in the art of public discourse.

**Prerequisites & Notes:** COMM 101 or COMM 235.

**Credits:** 3

**Grade Mode:** Letter

## **COMM 339 - Practicum in Applied Communication**

Students function in a variety of directed studies and contexts in which they apply their communication skills. Covers putting theory into practice in such areas as small group communication, interpersonal communication, organizational communication, intercultural communication and applied public information strategies. Repeatable to a maximum of 6 credits including the original course. S/U grading.

**Credits:** 1-3

**Grade Mode:** S/U

## **COMM 350 - Emerging Communication Technologies**

Primary course objective is technological literacy - gaining skills and experience for working with emerging communication technologies. Students will engage in a range of experiential and service learning assignments using various emerging technologies. Secondary objective is technology critique and the study of theories of technology.

**Credits:** 5

**Grade Mode:** Letter

## **COMM 360 - Communicating Masculinities**

This course considers the relationships between communication practices and gender roles in the United States, with a particular focus on how communication constructs masculinities. The course focuses on how media, language, and rhetorical strategies construct dominant masculinities in contrast with other expressions of masculinity.

**Credits:** 5

**Grade Mode:** Letter

## **COMM 398 - Research Methods in Communication**

Course should be taken as soon as possible after admission to the major as it is prerequisite for most 400-level communication courses. Survey of qualitative and quantitative research methods utilized in the field of communication.

**Prerequisites & Notes:** Departmental majors only

**Credits:** 5

**Grade Mode:** Letter

## **COMM 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **COMM 416 - Topics in Communication**

In-depth coverage of special topics in communication, rhetoric and mass media. The subject of each individual course and its prerequisite is announced in the Timetable of Classes. Repeatable with different topics to a maximum of 12 credits.

**Prerequisites & Notes:** Senior status; COMM 398 or permission of instructor

**Credits:** 3-5

**Grade Mode:** Letter

#### **COMM 420 - Issues in Communication Theory**

In-depth examination of advanced theories in human communication. Emphasis on theory development.

**Prerequisites & Notes:** COMM 398 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

#### **COMM 425 - Issues in Intercultural Communication**

Introduction to dynamic forces that enhance effective communication between persons with various cultural backgrounds. Covers topics such as differences, similarities, values, pride and prejudice, cultural barriers in communication settings, and effectiveness of intercultural communication.

**Prerequisites & Notes:** COMM 325 and COMM 398 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

#### **COMM 427 - Issues in Interpersonal Communication**

Senior seminar that offers an in-depth examination of theories and practices in interpersonal communication.

**Prerequisites & Notes:** COMM 327 and COMM 398 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

#### **COMM 428 - Issues in Organizational Communication**

Reviews current theory and research on topics such as communication and organizational decision making, organizational culture, gender relations, and power and control in organizations.

**Prerequisites & Notes:** COMM 228

**Credits:** 5

**Grade Mode:** Letter

#### **COMM 430 - Visual Rhetoric**

This course aims to interrogate the relationship between rhetoric and the image. Devoting attention to theories that explore the symbolic and performative dimensions of visual culture, this course introduces advanced students to theories of perception and visual interpretation as they relate to visual communication, media and film studies, cultural studies, art, literature, memory, and the public spectacle.

**Prerequisites & Notes:** Junior status or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

#### **COMM 435 - Issues in Rhetorical Studies**

In-depth examination of advanced theories in rhetorical theory and criticism.

**Prerequisites & Notes:** COMM 230 or COMM 235 and junior status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

#### **COMM 436 - Advanced Forensics and Debate**

Emphasis on intercollegiate debate with opportunity for experience in extemporaneous, impromptu and persuasive speaking. A maximum of 6 credits may be earned in COMM 436; a combined total of 6 credits from COMM 236 and COMM 436 may be applied to the major. S/U grading.

**Prerequisites & Notes:** 6 credits COMM 235 and/or COMM 236

**Credits:** 2

**Grade Mode:** S/U

#### **COMM 440 - Issues in Media Studies**

Examination of advanced theories in mass communication and media literacy. Examines social, political, and economic forces that shape media; influences of media on society; and issues of media policy, media advocacy, and media reform.

**Prerequisites & Notes:** COMM 240 or JOUR 190; COMM 398.

**Credits:** 5

**Grade Mode:** Letter

#### **COMM 442 - Video Workshop**

Course includes practical application of techniques used in video production. Utilizes digital technology, graphic materials, design and staging. Students will learn the role of producer and

## COMMUNICATION STUDIES

director. Repeatable to a maximum of 6 credits including original course. S/U grading.

**Prerequisites & Notes:** Recommended prior to registration: JOUR 190, COMM 350 or previous video experience; instructor permission.

**Credits:** 3

**Grade Mode:** S/U

### COMM 450 - Communication Pedagogy I

Serve as undergraduate tutor for students taking communication courses. Learn instructional methods and gain further mastery of course content. Conduct supervised tutoring and feedback for students enrolled in communication courses. S/U grading

**Prerequisites & Notes:** Recommendation; written permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### COMM 451 - Communication Pedagogy II

Help supervise teams of undergraduate tutors. Develop leadership, organizational and pedagogical skills. S/U grading.

**Prerequisites & Notes:** COMM 450; recommendation; written permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### COMM 452 - Communication Pedagogy III

Students enrolled in this course are the instructor assistants (IAs) returning to the COMM 101 program for the third time. Under the program director's supervision, students will mentor the first-time IAs enrolled in COMM 450; complete workshops demonstrating leadership, organizational and pedagogical skills for all IAs enrolled in COMM 450 and COMM 451; and supervise teams of COMM 101 students. S/U grading.

**Prerequisites & Notes:** COMM 450 and COMM 451

**Credits:** 3

**Grade Mode:** S/U

### COMM 454 - Instructional Communication

This course is designed for prospective elementary, secondary and college teachers and communication trainers/consultants. Communication theories, principles, and skills applicable to the classroom context are addressed as they apply to teaching in general and communication specifically.

**Prerequisites & Notes:** COMM 398 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### COMM 459 - Field Internship in Communication

Supervised work in communication with an educational institution, public agency, private enterprise, broadcast station or other appropriate business. Meetings, written reports and a paper related to the internship are required. For students applying for media internships, plan to complete all academic course work before the internship, as this is the usual career pattern for those in that area. Repeatable to a maximum of 12 credits. A maximum of 6 credits may be applied to the COMM major. S/U grading.

**Prerequisites & Notes:** Senior status; written permission of advisor; departmental majors only.

**Credits:** 1-12

**Grade Mode:** S/U

### COMM 460 - Communication and Critical/Cultural Studies

This course examines theories and approaches in Cultural Studies as they are utilized in Communication Studies. Students will use critical cultural theory to examine the role that communication practices play in the development or transformation of social hierarchies, with an emphasis on cultural practices and relations of power, privilege, and identity.

**Prerequisites & Notes:** Junior status; one course from COMM 225, COMM 230, COMM 240 or COMM 260.

**Credits:** 5

**Grade Mode:** Letter

### COMM 492 - Senior Thesis

Supervised independent research on an advanced topic, leading to a substantial research paper. Two quarters prior, student should seek out a supervising faculty member to begin preparation and planning. One quarter prior, student should complete a preparatory independent study (COMM 400) that includes a literature review, an outline of methods and, if needed, a Human Subjects Review form.

**Prerequisites & Notes:** COMM 398; departmental majors only; permission of a supervising professor.

**Credits:** 5

**Grade Mode:** Letter

### COMM 498 - Communication Ethics

This capstone course examines diverse ethical theories and perspectives pertaining to communication in contexts ranging from the local to the global. Students will have opportunities to reflect on and clarify their own ethical commitments, and to understand these in relation to ethical theories and perspectives in the field of communication studies.

**Prerequisites & Notes:** COMM 398 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

# East Asian Studies

## Introduction

East Asia, as one of the world centers of high civilization, has long been the object of cultural interest and study. Increasingly, it has become important for economic and political reasons as well. The Center for East Asian Studies provides a focal point for the University's interaction with East Asia and for academic study of the region.

The program in East Asian studies emphasizes the interdisciplinary study of the area, primarily the countries of China, Japan, Korea and Mongolia. The course of study is designed to attain three major objectives. First, it offers students an opportunity to acquire accurate, detailed and comprehensive knowledge of a region that is becoming increasingly important in world affairs. Second, it prepares students who are attracted by job opportunities related to East Asia in business and government. For those who wish to teach about East Asia, the program provides appropriate preparation. Third, it provides solid undergraduate training for students who plan to enter East Asian programs for graduate studies.

Students interested in pursuing a major in East Asian studies should consult the director of the Center for East Asian Studies, Massimiliano Tomasi, 360-650-3339, e-mail: Massimiliano.Tomasi@wwu.edu.

## Faculty

**MASSIMILIANO TOMASI**, Director. Modern and Classical Languages. Japanese language and culture, modern Japanese rhetoric and literature.

**PATRICK BUCKLEY**, Geography. Geography and economics of Japan.

**MASANORI DEGUCHI**, Modern and Classical Languages. Japanese language and linguistics.

**MARGARET FAST**, Wilson Library. Methods and materials in East Asia Research.

**JAMES HEARNE**, Computer Science. Chinese philosophy, Chinese science, East Asian language computing.

**ROBERT KIM**, Education. Korean language, literature and culture.

**ROBERT MARSHALL**, Anthropology. Japanese business culture, economy and politics of Japan.

**DEBNATH MOOKHERJEE**, Geography. Cultural geography, urbanism, East and South Asian

geography.

**KRISTEN PARRIS**, Political Science. East Asian politics.

**SCOTT PEARCE**, Liberal Studies. Medieval Chinese history.

**JUDY PINE**, Anthropology. South and East Asian languages and cultures.

**TOM ROEHL**, Management. International business.

**WAYNE RICHTER**, Wilson Library. Mongolian language.

**JULIA SAPIN**, Art. Asian art history, Japanese art, art of the Pacific Rim.

**HENRY G. SCHWARZ**, History and East Asian Studies, Emeritus. Mongolian and modern Chinese history, minorities of Northern China.

**ROGER THOMPSON**, History. Traditional and modern Chinese history.

**EDWARD J. VAJDA**, Modern and Classical Languages. Inner Asian and Siberian languages and history.

**JIANGLONG WANG**, Communications. Intercultural communications.

**JANET XING**, Modern and Classical Languages. Chinese language, Chinese linguistics.

**NING YU**, English. Chinese and Chinese-American literatures.

**MICHIKO YUSA**, Modern and Classical Languages. History of religion, Japanese language and culture.

## Adjunct Faculty

**HO-CHIN YANG**, Modern and Classical Languages. Chinese language, history of Tibet.

**LILLY YANG**, Modern and Classical Languages. Chinese language.

## Other Departmental Information

### Tutorials and Study Abroad

The Center for East Asian Studies also offers tutorials in advanced Chinese and Japanese. Elementary and intermediate Mongolian language may be offered through Extended Education.

Study Abroad: Students are encouraged to spend up to one year in a study abroad program, including Asia University; Tsuda College; Oberlin College, KCP in Tokyo; Inner Mongolia University, Hohhot; Seoul Women's University, Seoul; Yonsei University in Seoul; or Yunnan University, Kunming, China. Many other programs such as CET and CIEE provide opportunities for study in Beijing, Shanghai, Nanjing, Kunming and Taipei.

# Bachelor of Arts

## East Asian Studies, BA

East Asian Studies, College of Humanities and Social Sciences

**60 credits**

### Introduction

The course of study is designed to attain three major objectives. First, it offers students an opportunity to acquire accurate, detailed and comprehensive knowledge of a region that is becoming increasingly important in world affairs. Second, it prepares students who are attracted by job opportunities related to East Asia in business and government. For those who wish to teach about East Asia, the Program provides appropriate preparation. Third, it provides solid undergraduate training for students who plan to enter East Asian programs in their graduate studies.

### Why Consider an East Asian Studies Major?

The Program in East Asian Studies offers interdisciplinary study of the area, primarily the countries of China and Japan. Under special advisement, Korea and Mongolia are also subjects for study. The major offers students an opportunity to prepare for positions in cultural organizations, diplomatic offices, companies engaged in international business, and in educational institutions.

#### Contact Information

##### Major Information Director

Massimiliano Tomasi  
Miller Hall 222C  
360-650-3339  
massimiliano.tomasi@wwu.edu

#### Sample Careers

International Consultant | International Business Manager | International Sales | Foreign News Correspondent | Tour Guide/Agent | Museum Administrator | Librarian/Information Specialist | Foreign Service Worker | FBI/CIA Agent | Intelligence Researcher | Cultural Officer | Foreign Diplomat | Immigration Agent | College Professor | Secondary Education Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

To declare the major, schedule an appointment with the Director, Massimiliano Tomasi. He will review with you the complete process for designing your major by showing you options of core courses, language courses, and electives in the area of Asian Studies that is of particular interest to you.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Two years of Chinese or Japanese language (Mongolian or Korean by special arrangement) from the following. A maximum of thirty language credits may apply.
  - CHIN 101 - First-Year Chinese
  - CHIN 102 - First-Year Chinese
  - CHIN 103 - First-Year Chinese
  - CHIN 201 - Second-Year Chinese
  - CHIN 202 - Second-Year Chinese

## EAST ASIAN STUDIES

- CHIN 203 - Second-Year Chinese
- CHIN 301 - Third-Year Chinese
- CHIN 302 - Third-Year Chinese
- CHIN 303 - Third-Year Chinese
- Or
- JAPN 101 - First-Year Japanese
- JAPN 102 - First-Year Japanese
- JAPN 103 - First-Year Japanese
- JAPN 201 - Second-Year Japanese
- JAPN 202 - Second-Year Japanese
- JAPN 203 - Second-Year Japanese
- JAPN 301 - Third-Year Japanese
- JAPN 302 - Third-Year Japanese
- JAPN 303 - Third-Year Japanese
- EAST 201 - Introduction to East Asian Civilizations
- EAST 202 - East Asian History in the Early-Modern and Modern Eras
- EAST 302 - Methods and Materials in East Asian Studies
- One course from:
  - EAST 367 - Chinese Literature in Translation
  - EAST 368 - Japanese Literature in Translation
- Additional credits from courses approved by the Center for East Asian Studies as listed below: (At least 8 credits must be at the 400 level)
  - A/HI 370 - Islamic Visual Cultures
  - ANTH 362 - Peoples of Asia
  - ANTH 463 - Peoples of East and Southeast Asia
  - CHIN 330 - Chinese Culture Through Film and Literature
  - EAST 307 - Government and Politics of East Asia
  - EAST 310 - The International Security of East Asia
  - EAST 313 - Early Inner Asia
  - EAST 314 - The Mongols
  - EAST 333 - East Asia: Society and Environment
  - EAST 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
  - EAST 367 - Chinese Literature in Translation
  - EAST 368 - Japanese Literature in Translation
  - EAST 431 - Pacific Rim: Environment, Economy, and Sustainability
  - EAST 440 - Modern Chinese Politics
  - ENVS 333 - East Asia: Society and Environment
  - ENVS 431 - Pacific Rim: Environment, Economy and Sustainability
  - HIST 370 - Chinese History to 600 Ad
  - HIST 372 - Chinese History: 1800 to Present
  - HIST 374 - Premodern Japanese History
  - HIST 375 - Modern Japanese History
  - HIST 479 - Medieval and Early-Modern Chinese History
  - HIST 480 - Modern Chinese Social History
  - HIST 481 - The Chinese Revolution
  - HIST 483 - Early Modern Japan
  - HIST 484 - Women in Japanese History
  - HIST 485 - Japanese Military History: Samurai Fact and Fiction
  - HIST 486 - Religion in Japanese History
  - IBUS 370 - Introduction to International Business
  - IBUS 474 - Topics in International Business
  - JAPN 330 - Japanese Culture Through Film
  - JAPN 401 - Advanced Japanese
  - LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
  - LBRL 375 - Buddhism
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - PLSC 307 - Government and Politics of East Asia
  - PLSC 310 - The International Security of East Asia
  - PLSC 430 - Modern Chinese Politics



# Minor

## East Asian Studies Minor

East Asian Studies, College of Humanities and Social Sciences

### 30 Credits

### Introduction

The following minor may be combined with a major in history or in political science for a major concentration, or may be elected as a minor by majors in other fields. For description of courses, see the sections of cooperating departments.

#### Contact Information

#### Minor Information

Massimiliano Tomasi

Miller Hall 222C

360-650-3339

massimiliano.tomasi@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingmajor.shtml](http://www.wwu.edu/careers/students_choosingmajor.shtml)

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- EAST 201 - Introduction to East Asian Civilizations
- EAST 202 - East Asian History in the Early-Modern and Modern Eras
- One course from:
  - EAST 367 - Chinese Literature in Translation
  - EAST 368 - Japanese Literature in Translation
- Additional credits from other East Asian courses or from courses approved by the Center for East Asian Studies (a minimum of 4 credits must be at the 300-400 level):
  - A/HI 271 - Visual Culture in East Asia
  - A/HI 370 - Islamic Visual Cultures
  - AMST 205 - The Asian-American Experience
  - ANTH 362 - Peoples of Asia
  - ANTH 463 - Peoples of East and Southeast Asia
  - CHIN 280 - Traditional Chinese Characters and Calligraphy
  - CHIN 330 - Chinese Culture Through Film and Literature
  - EAST 230 - Modern Chinese Society and Language
  - EAST 307 - Government and Politics of East Asia
  - EAST 310 - The International Security of East Asia
  - EAST 313 - Early Inner Asia
  - EAST 314 - The Mongols
  - EAST 333 - East Asia: Society and Environment
  - EAST 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
  - EAST 367 - Chinese Literature in Translation (if not used to satisfy above requirement)
  - EAST 368 - Japanese Literature in Translation (if not used to satisfy above requirement)
  - EAST 431 - Pacific Rim: Environment, Economy, and Sustainability
  - EAST 440 - Modern Chinese Politics
  - ENVS 333 - East Asia: Society and Environment
  - ENVS 431 - Pacific Rim: Environment, Economy and Sustainability
  - ENG 236 - Asian-American Literatures
  - EUS 210 - Nomads of Eurasia

## EAST ASIAN STUDIES

HIST 370 - Chinese History to 600 Ad  
HIST 372 - Chinese History: 1800 to Present  
HIST 374 - Premodern Japanese History  
HIST 375 - Modern Japanese History  
HIST 479 - Medieval and Early-Modern Chinese History  
HIST 480 - Modern Chinese Social History  
HIST 481 - The Chinese Revolution  
HIST 483 - Early Modern Japan  
HIST 484 - Women in Japanese History  
HIST 485 - Japanese Military History: Samurai Fact and Fiction  
HIST 486 - Religion in Japanese History  
IBUS 370 - Introduction to International Business  
IBUS 474 - Topics in International Business  
JAPN 280 - Kanji  
JAPN 330 - Japanese Culture Through Film  
JAPN 401 - Advanced Japanese  
LBRL 273 - Art and Society in China and Japan  
LBRL 275 - Humanities of Japan  
LBRL 277 - Humanities of China  
LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern  
LBRL 375 - Buddhism  
LBRL 380 - Religion and Society in China  
LBRL 382 - Religion and Society in Japan  
PLSC 307 - Government and Politics of East Asia  
PLSC 310 - The International Security of East Asia  
PLSC 430 - Modern Chinese Politics

## East Asian Studies Courses

### **EAST 201 - Introduction to East Asian Civilizations**

The origins and evolution of the political, economic, cultural and social aspects of East Asian civilization in through the early-modern period. Also taught as HIST 280.

**Prerequisites & Notes:** also offered as HIST 280  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **EAST 202 - East Asian History in the Early-Modern and Modern Eras**

Examines political, cultural and social aspects of East Asian civilizations with attention to the early-modern and modern periods. Also taught as HIST 281.

**Prerequisites & Notes:** also offered as HIST 281  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **EAST 230 - Modern Chinese Society and Language**

A survey of the characteristics of the Chinese

language. A study of the relationships among Chinese culture, contemporary society and language variation.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **EAST 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **EAST 302 - Methods and Materials in East Asian Studies**

Research methods in East Asian studies; organization of Chinese and Japanese libraries; principal journals, reference tools and scholarly apparatus for various areas of East Asia.

**Prerequisites & Notes:** EAST 201, EAST 202; one year of Chinese or Japanese.  
**Credits:** 3  
**Grade Mode:** Letter

**EAST 307 - Government and Politics of East Asia**

Survey course covering the domestic political systems of China, Japan, and Korea. Also offered as PLSC 307.

**Prerequisites & Notes:** Sophomore status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**EAST 310 - The International Security of East Asia**

The issues of national and human security in the East Asian Region. Also offered as PLSC 310.

**Prerequisites & Notes:** Sophomore status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**EAST 313 - Early Inner Asia**

A detailed history of the Eurasian steppe and desert tribes from the earliest times to the rise of the Mongols under Chingiz Khan in the late 12th century. Discusses the complex cultural and political interplay among the early Indo-European, Turkic and Mongol pastoralists as well as their often cataclysmic interaction with the sedentary civilizations of the world.

**Prerequisites & Notes:** EAST 201 or EAST 202 or EAST 210 or HIST 280 or HIST 281 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**EAST 314 - The Mongols**

Documents the history of the Eurasian steppes from the rise of Chingiz Khan to the present day. Describes the creation of the world's largest empire, its gradual disintegration and its partial absorption by the agricultural societies on its periphery. Includes analysis of recent political events in this area of the world.

**Prerequisites & Notes:** EAST 201 or EAST 202 or EAST 210 or HIST 280 or HIST 281 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**EAST 333 - East Asia: Society and Environment**

Survey of physical environment, sustainability, peoples, regions and resources of East Asia; problems and prospects. Also offered as ENVS 333.

**Prerequisites & Notes:** One from: EAST 201, EAST 202, ENVS 203, ENVS 204, ENVS 221, ENVS 240 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**EAST 360 - China and the Emerging World Economy: From Antiquity to the Early Modern**

The focus of this course will be the early stages of the unfolding of globalization in Eurasia, from antiquity into the early modern period, with particular attention given to China's important role in these developments, and how it was affected in turn. Also offered as LBRL 360.

**Prerequisites & Notes:** Junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**EAST 367 - Chinese Literature in Translation**

Selected readings in Chinese literary masterpieces from earliest to modern times.

**Prerequisites & Notes:** EAST 201 or EAST 202 or CHIN 103 or LBRL 277 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**EAST 368 - Japanese Literature in Translation**

Selected readings in Japanese literary masterpieces from early modern times to the present.

**Prerequisites & Notes:** EAST 201 or EAST 202 or LBRL 275 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**EAST 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**EAST 430 - Contemporary Japanese Society**

This course provides a detailed examination of historical events, cultural practices and social developments that have shaped contemporary Japanese society. The course focuses on the post-

## EAST ASIAN STUDIES

war period and analyzes current intellectual discourse on a variety of themes, depending on the instructor. Representative topics are atomic bomb literature and the discourse of occupation, the myth of homogeneity and the shifting role of women and minorities, and the representation of gender and otherness in literature and popular culture. Repeatable up to 6 credits including original course.

**Prerequisites & Notes:** EAST 201 and EAST 202; or HIST 280 and HIST 281; or JAPN 203; or instructor permission.

**Credits:** 2-4

**Grade Mode:** Letter

### **EAST 431 - Pacific Rim: Environment, Economy, and Sustainability**

Geographic investigation of the economies, environmental impacts, and issues of sustainability of Pacific Rim nations; special comparative emphasis on East Asia versus North America. Also offered as ENVS 431.

**Prerequisites & Notes:** One from: EAST 302, ENVS 303, ENVS 304, ENVS 330, ENVS 331, ENVS 332, ENVS 333, ENVS 340, ENVS 341, ENVS 342; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **EAST 440 - Modern Chinese Politics**

An introduction to politics and society in modern China: state structures, political culture, state-society relations, policy-making and foreign relations. Also offered as PLSC 430.

**Prerequisites & Notes:** PLSC 291 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

# English

## Introduction

The English major engages students in reflective reading, creative inquiry, critical analysis, and effective expression. The study of literature, linguistics, writing, film, and visual media prepares graduates to pursue a variety of careers, including law, business, government, professional writing, publishing, and education. These studies also prepare students for graduate programs.

The Department of English offers four major emphases:

English — Literature Emphasis, BA

English — Literature Emphasis, BA, with Teaching Endorsement Option

English — Creative Writing Emphasis, BA

English — Creative Writing Emphasis, BA, with Teaching Endorsement Option

All four programs lead to the Bachelor of Arts in English. English: Literature Emphasis focuses on the study of literature in historical and cultural contexts and includes course work in English language and literature, literary and rhetorical theory, creative writing and composition, technical writing, film, and visual media. English: Literature with Endorsement Option has a similar focus but with the addition of coursework required for an English Language Arts Endorsement at the secondary level. Creative Writing Emphasis focuses on writing in fiction, drama, poetry, and in nonfiction prose, and it is complemented by courses in language and literature. English: Creative Writing with Endorsement Option has a similar focus but with the addition of coursework required for an English Language Arts Endorsement at the secondary level.

The Department of English provides a dynamic intellectual environment and learning community. Faculty members introduce new genres, fields and methods of critical inquiry, and technologies to provide our students with the best possible education. The department offers small, student-centered classes, innovative pedagogy, and close faculty-student interaction. English faculty members have earned numerous awards for excellence in teaching, research, and writing; they are nationally and internationally recognized in creative and critical fields. Our students have amassed an enviable record of placement in graduate programs and professional positions.

## Faculty

**KATHRYN VULIĆ** (2004) Chair and Associate Professor. AB, Ohio State University; MA, PhD, University of California, Berkeley.

**KAVEH ASKARI** (2007) Associate Professor. BA, New College of Florida; MA, PhD, University of Chicago.

**BRUCE BEASLEY** (1992) Professor. BA, Oberlin College; MFA, Columbia University; MA, PhD, University of Virginia.

**NICOLE BROWN** (2002) Associate Professor. BS, BA, Salve Regina University; MA, Carnegie Mellon University; PhD, Purdue University.

**JEREMY CUSHMAN** (2013) Assistant Professor. BA, Whitworth University; MA, University of Illinois at Chicago; PhD, Purdue University.

**KRISTIN DENHAM** (2000) Professor. BA, Swarthmore College; MA, University of Arizona; PhD, University of Washington.

**DAWN DIETRICH** (1992) Associate Professor. BA, Eastern Michigan University; MA, PhD, University of Michigan.

**MARC GEISLER** (1992) Associate Professor and Associate Dean, College of Humanities and Social Sciences. BA, Bates College; MA, PhD, University of California, Irvine.

**ALLISON GIFFEN** (2001) Associate Professor. BA, Barnard College; MA, Yale University; PhD, Columbia University.

**BRUCE GOEBEL** (1996) Professor. BA, Eastern Washington University; MA, California State University, Fresno; PhD, University of Iowa.

**CAROL GUESS** (1998) Professor. BA, Columbia University; MA, MFA, Indiana University.

**NANCY J. JOHNSON** (1994), Professor. BA, University of Washington; MA, PhD, Michigan State University.

**KRISTIANA KAHAKAUWILA** (2012) Assistant Professor. BA, Princeton University; MFA, University of Michigan.

**LAURA LAFFRADO** (1993) Professor. AB, Vassar College; MFA, University of Montana; MA, PhD, State University of New York-Buffalo.

**CHRISTOPHER LOAR** (2013) Assistant Professor. BA, University of Chicago; MA, University of California, Los Angeles; PhD, University of California, Los Angeles.

**ANNE LOBECK** (1990) Professor. BA, Whitman College; MA, PhD, University of Washington.

**ANDREW LUCCHESI** (2016) Assistant Professor. BA, Pacific Lutheran University; MA, King's College of London; PhD, The Graduate Center, City University of New York.

**KATHLEEN LUNDEEN** (1991) Professor. BA, MA, PhD, University of California, Santa Barbara.

**WILLIAM LYNE** (1995) Professor. BA, University of California, Los Angeles; MA, PhD, University of Virginia.

**KELLY MAGEE** (2008) Associate Professor. BA, Auburn University; MFA, Ohio State University.

**KRISTIN MAHONEY** (2007) Associate Professor. BA, New College of Florida; MA, PhD, University of Notre Dame.

## ENGLISH

**MARY JANELL METZGER** (1995) Professor. BA, University of Washington; MA, PhD, University of Iowa.

**BRENDA MILLER** (1999) Professor. BA, Humboldt State University; MFA, University of Montana; PhD, University of Utah.

**SUZANNE PAOLA** (1994) Professor. BA, Oberlin College; MFA, University of Virginia.

**DONNA QUALLEY** (1994) Professor. BA, University of Kentucky; MST, PhD, University of New Hampshire.

**LYSA RIVERA** (2007) Associate Professor. BA, University of California, Santa Cruz; MA, PhD, University of Washington.

**KATHRYN TRUEBLOOD** (2002) Professor. BA, University of California, Berkeley; MFA, University of Washington.

**STEVEN VANDERSTAAY** (1996) Vice Provost for Undergraduate Education and Professor. BA, MA, University of Washington; PhD, University of Iowa.

**THERESA WARBURTON** (2014) Assistant Professor. BA, Trinity College; AM, University of Chicago; PhD, State University of New York at Buffalo.

**CHRISTOPHER WISE** (1996) Professor. BA, Northwestern College; MA, University of Oklahoma; PhD, University of California, Riverside.

**GREG YOUMANS** (2014) Assistant Professor. BA, University of California, Berkeley; PhD, University of California, Santa Cruz.

**NING YU** (1993) Professor. BA, Beijing University of Aeronautics and Astronautics; MA, PhD, University of Connecticut.

### Declaration Process

The department offers majors leading to both Bachelor of Arts and Bachelor of Arts in Education degrees. Admission to these majors is by application to the appropriate advisor. Students are strongly urged to meet with a department advisor early in their careers at Western; students must declare their major at the start of their junior year. Though we cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and offer a wide variety of topics each term.

### Other Departmental Information

#### Mid-Program Checkpoint

Students seeking to complete a BA degree program in an English, emphasis within a four-year time span should have completed the following courses by the start of their junior year:

- ENG 101 and ENG 202

### Policy on Directed Independent Study and Extended Education Self-Paced Courses

- The following policies govern the kinds of classes that can apply to an undergraduate English major:
- The number of Directed Independent Study (ENG 300 and/or ENG 400) credits is limited to a maximum of 10.
- The number of Extended Education self-paced credits is limited to a maximum of 10.
- The total number of combined Directed Independent Study and Extended Education self-paced credits is limited to a maximum of 15.
- Directed Independent Study courses are intended to enrich the student's major and we therefore specifically do not allow credit for Directed Independent Study in the following cases:
  - a) to replace core courses in the department's majors;
  - b) to replace courses offered during the quarter in which the independent study is taken;
  - c) to replace writing intensive courses; and
  - d) to replace workshop courses designed to encourage student responses to writing.
- Directed Independent Study requires a written contract between student and teacher that comprises two parts:
  - a) a standard cover sheet that states the department policy regarding Directed Independent Study and Extended Education self-paced courses, that requests information concerning the number of such courses the student has already taken, and that requires the signature of the student, teacher, and chair; and
  - b) a short (one or two page) outline of the proposed study to be accomplished during the Directed Independent Study, including the reading and writing assignments and the number of office meetings to be scheduled.

### Graduate Study

For a concentration leading to the Master of Arts degree, see the Graduate School section of this catalog.

# Bachelor of Arts

## English — Creative Writing Emphasis, BA

Department of English, College of Humanities and Social Sciences

**58-60 Credits**

### Introduction

English is one of the central liberal arts degrees. A background in English provides graduates with a sound basis for pursuing a variety of careers, including law, business, education, publishing and government, as well as graduate work in creative writing, language, literary and cultural studies, and writing. English engages students in diverse literary heritages as well as fosters the development of sophisticated abilities in critical analysis, creative inquiry, reflective reading, and effective communication and expression.

### Why Consider a Creative Writing Emphasis in the English Major?

The Creative Writing program focuses on writing courses: creative writing in fiction, drama, poetry, or nonfiction prose and includes coursework in literature to supplement the writing courses. Students in the upper-divisional courses are expected to interpret and analyze literature in thoughtful, organized, and clear essays that are free of mechanical errors. If you think you need help with your reading and writing, we strongly encourage you, in addition to your work in English courses, to consult the Writing Center and other University resources.

Introductory and advanced genre courses form the core of the major, giving students an opportunity to develop their craft and aesthetics through intensive writing, reading, and workshops. Students must take courses in at least two different genres. Aside from the core courses, creative writing majors take 25 credits in literature (which may include literary/cultural, rhetorical, and literacy theory and film studies) at the 300- or 400-level. Special modes courses (456, 457, 458, 460) introduce advanced students to distinct forms within their major genres.

#### Contact Information

Linda Flanagan, Undergraduate Program Coordinator  
Humanities 327  
360-650-3209  
Linda.Flanagan@wwu.edu

#### Sample Careers

Education | Business Law | Author | Government | Editing and Publishing | Graduate work in Creative Writing  
Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator to declare this major. The prerequisites for declaring the major are 60 credits completed and ENG 202.

To declare the major, contact the Undergraduate Program Coordinator, Linda Flanagan. Though the English Department cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and offer a wide variety of topics each term.

**Advising Tips:** Students are strongly encouraged to meet with the Undergraduate Program Coordinator, Linda Flanagan, early in their careers at Western. Students must declare their major by the start of their junior year.

# ENGLISH

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- 25 credits in literature (which may include literary/cultural, rhetorical, and literacy theory and film studies) at the 300- or 400-level, including a minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-.
- ENG 370 - Introduction to Language (Students who earn a grade of 3.0 or better in Linguistics 201 may substitute a 300 or 400-level English course under advisement for English 370.)
- Two courses from:
  - ENG 351 - Introduction to Fiction Writing
  - ENG 353 - Introduction to Poetry Writing
  - ENG 354 - Introduction to Creative Nonfiction Writing
  - THTR 384 - Introduction to Dramatic Writing
  - FAIR 354V - Scriptwriting Workshop I
- Four courses from:
  - ENG 451 - Creative Writing Seminar - Fiction \*
  - ENG 453 - Creative Writing Seminar - Poetry \*
  - ENG 454 - Creative Writing Seminar - Creative Nonfiction \*
  - ENG 455 - Living Writers
  - ENG 456 - Special Topics in Fiction Writing
  - ENG 457 - Special Topics in Poetry Writing
  - ENG 458 - Special Topics in Creative Nonfiction Writing
  - ENG 459 - Editing and Publishing
  - ENG 460 - Special Topics In Creative Writing - Multi-Genre
  - THTR 485 - Dramatic Writing Workshop \*\*
  - FAIR 454Y - Scriptwriting Workshop II

Creative writing courses offered by Canadian-American Studies may also be counted with approval of the English Department advisor

\*One of these courses is repeatable with a different instructor to a maximum of 10 credits.

\*\* May be repeated under separate topics to a maximum of 12 credits.

## English — Creative Writing Emphasis, BA, with Teaching Endorsement Option

Department of English, College of Humanities and Social Sciences

**75 credits (58 additional credits for teacher certification)**

### Introduction

English is one of the central liberal arts degrees. A background in English provides graduates with a sound basis for pursuing a variety of careers, including law, business, education, publishing and government, as well as graduate work in creative writing, language, literary and cultural studies, and writing. English engages students in diverse literary heritages as well as fosters the development of sophisticated abilities in critical analysis, creative inquiry, reflective reading, and effective communication and expression.

### Why Consider a Creative Writing Emphasis with Teaching Endorsement Option in the English Major?

The English – Creative Writing Emphasis with a Teaching Endorsement Option focuses on writing courses: creative writing in fiction, drama, poetry, or nonfiction prose and includes coursework in literature, language and pedagogy to supplement the writing courses. Introductory and advanced genre courses form the core of the major, giving students an opportunity to develop their craft and aesthetics through intensive writing, reading, and workshops. Students must take courses in at least two different genres. Aside from the core



courses, this major requires courses in literature, linguistics, and pedagogy to meet state secondary English language arts endorsement requirements.

The English – Creative Writing Emphasis with Teaching Endorsement Option, BA major leads to a baccalaureate degree without teacher certification. To receive a recommendation for state of Washington teacher certification with an English Language Arts endorsement, students must complete courses within the English – Literature Emphasis major as specified herein, and the teacher certification program offered by the Department of Secondary Education as one of the following:

- A part of the undergraduate baccalaureate degree
- A post-baccalaureate program
- A part of the Master in Teaching program

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Regulations for teaching endorsement are subject to change. Contact the English Education advisor.

#### Contact Information

##### Undergraduate Program Coordinator

Linda Flanagan, Undergraduate Program Coordinator  
Humanities 327  
360-650-3209  
Linda.Flanagan@wwu.edu

##### Secondary Education Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wwu.edu

##### English Education Advisor

Nancy Johnson  
Humanities 351  
360-650-3227  
Nancy.Johnson@wwu.edu

##### Secondary Education website

[wce.wwu.edu/sec/secondary-education](http://wce.wwu.edu/sec/secondary-education)

#### Sample Careers

Education (teaching or administrating) | Graduate work in Literature and Creative Writing | Graduate work in Composition and Language

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Meet with English Department's Undergraduate Program Coordinator, Linda Flanagan, to declare this major. The prerequisites for declaring the major are 60 credits completed and ENG 202.

Though the English Department cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and we offer a wide variety of topics each term.

**Advising Tips:** Students are strongly encouraged to meet with the Undergraduate Program Coordinator, Linda Flanagan, early in their careers at Western. Students must declare their major by the start of their junior year.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements (75 credits)

- Four literature and culture courses consisting of two seminars and two surveys. Combined, the literature and culture courses must cover four different historical periods. Historical periods should not be repeated.

Two literature culture seminars from:

- ENG 307 - Seminar in Literature & Culture: Medieval
- ENG 308 - Seminar in Literature & Culture: Early Modern
- ENG 309 - Seminar in Literature & Culture: The Long 18th Century

## ENGLISH

ENG 310 - Seminar in Literature & Culture: The Long 19th Century

ENG 311 - Seminar in Literature & Culture: The 20-21st Century

Two literature and culture surveys from:

ENG 317 - Survey in Literature & Culture: Medieval

ENG 318 - Survey in Literature & Culture: Early Modern

ENG 319 - Survey in Literature & Culture: The Long 18th Century

ENG 320 - Survey in Literature & Culture: The Long 19th Century

ENG 321 - Survey in Literature & Culture: The 20-21st Centuries

ENG 347 - Studies in Young Adult Literature

One course from:

ENG 301 - Introduction to Writing Studies

ENG 302 - Introduction to Technical and Professional Writing

ENG 371 - Introduction to Rhetorical Analysis

ENG 350 - Introduction to Creative Writing

One course from:

ENG 351 - Introduction to Fiction Writing

ENG 353 - Introduction to Poetry Writing

ENG 354 - Introduction to Creative Nonfiction Writing

THTR 384 - Introduction to Dramatic Writing

FAIR 354V - Scriptwriting Workshop I

Three courses from:

ENG 451 - Creative Writing Seminar - Fiction \*

ENG 453 - Creative Writing Seminar - Poetry \*

ENG 454 - Creative Writing Seminar - Creative Nonfiction \*

ENG 455 - Living Writers

ENG 456 - Special Topics in Fiction Writing

ENG 457 - Special Topics in Poetry Writing

ENG 458 - Special Topics in Creative Nonfiction Writing

ENG 459 - Editing and Publishing

ENG 460 - Special Topics In Creative Writing - Multi-Genre

THTR 485 - Dramatic Writing Workshop \*\*

FAIR 454Y - Scriptwriting Workshop II

Creative writing courses offered by Canadian-American Studies may also be counted with approval of the English Department advisor.

\*One of these courses is repeatable with a different instructor to a maximum of 10 credits.

\*\*May be repeated under separate topics to a maximum of 12 credits.

ENG 370 - Introduction to Language

(Students who earn a grade of 3.0 or better in LING 201 may substitute a 300 or 400-level English course under advisement for ENG 370.)

ENG 436 - The Structure of English

ENG 443 - Teaching English Language Arts in the Secondary Schools I

ENG 444 - Teaching English Language Arts in the Secondary Schools II

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

SEC 303 - Teaching Adolescents: Development and Identity

SEC 310 - Education, Culture, and Equity

SEC 410 - Dynamics of Teaching

SEC 411 - Philosophical Foundations of Education

SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools

SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards

SEC 431 - Secondary School Methods II-Assessment and Long Term Planning

SEC 432 - Secondary School Methods III - Management, Motivation and Discipline

SEC 433 - Teaching and Learning Laboratory

SEC 435 - Secondary Practicum I

SEC 436 - Secondary Practicum II

- ❑ I T 444 - Classroom Use of Instructional Technology (Secondary)
- ❑ SEC 495 - Internship - Secondary
- ❑ SPED 363 - Secondary Students With Special Needs

## English — Literature Emphasis, BA

Department of English, College of Humanities and Social Sciences

### 60 Credits

#### Introduction

English is one of the central liberal arts degrees. A background in English provides graduates with a sound basis for pursuing a variety of careers including law, business, education, publishing and government, as well as graduate work in language, literary and cultural studies, and writing. English engages students in diverse literary heritages, as well as fosters the development of sophisticated abilities in critical analysis, creative inquiry, reflective reading, and effective communication and expression.

#### Why Consider a Literature Emphasis in the English Major?

The English Literature major focuses on the study of literatures in historical and cultural contexts and includes course work in English language, literary theory, and composition and rhetoric. Some students may opt to develop a writing concentration within their literature major, taking writing courses such as composition, creative writing, and professional and technical writing. There are also opportunities to pursue English Education, including endorsements. Students in the upper-division courses are expected to interpret and analyze literature in thoughtful, organized, and clear essays that are free of mechanical errors. If you think you need help with your reading and writing, we strongly encourage you, in addition to your work in English courses, to consult the Writing Center and other university resources.

The literature emphasis offers students the opportunity for both breadth and depth in the study of literature and culture. In the "Literature and Culture" courses (ENG 307-311), which are the core of the major, students gain a sense of historical scope as they explore literatures from a range of periods. In addition, majors take required courses in critical and cultural theory, writing and the history and theory of language. All of these courses provide a solid foundation for intensive study of specialized topics in the upper-level electives and in the senior seminar.

The English – Literature Emphasis, BA major leads to a baccalaureate degree without teacher certification. To receive a recommendation for state of Washington teacher certification, students must also complete the teacher certification program offered by the Department of Secondary Education as one of the following:

- A part of the undergraduate baccalaureate degree
- A post-baccalaureate program
- A part of the Master in Teaching program

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Students seeking teaching certification are advised that the careful selection of English courses within the English-Literature major and the addition of one 5-credit English course are necessary in order to meet requirements for the English Language Arts – Secondary endorsement. Students must meet with the secondary education academic advisor in the English Department to complete a plan of study.

#### Contact Information

Linda Flanagan, Undergraduate Program Coordinator  
Humanities 327  
360-650-3209  
Linda.Flanagan@wwu.edu

#### Sample Careers

Law | Business (including public relations, sales and marketing) | Education (teaching or administrating) | Author, broadcaster, artist, entertainer | Government | Editing and Publishing | Graduate work in Literature and Creative Writing | Graduate work in Composition and Language

# ENGLISH

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator to declare this major. Prerequisites for declaring the major are 60 credits completed and ENG 202.

To declare the major, contact the Undergraduate Program Coordinator, Linda Flanagan. Though the English Department cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and offer a wide variety of topics each term.

**Advising Tips:** Students are strongly encouraged to meet with the Undergraduate Program Coordinator, Linda Flanagan, early in their careers at Western. Students must declare their major by the start of their junior year.

### English Language Arts - Secondary Endorsement:

Students seeking teacher certification are advised that the careful selection of English courses within the English Literature major and the addition of one 5 credit English course are necessary in order to meet requirements for the English Language Arts—Secondary endorsement. Students must meet with the secondary education academic advisor in the English Department, Nancy Johnson (HU 351, 360-650-3227), to complete a plan of study.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

Four literature and culture courses consisting of two seminars and two surveys. Combined, the literature and culture courses must cover four different historical periods. Historical periods should not be repeated.

Two literature and culture seminars from:

- ENG 307 - Seminar in Literature & Culture: Medieval
- ENG 308 - Seminar in Literature & Culture: Early Modern
- ENG 309 - Seminar in Literature & Culture: The Long 18th Century
- ENG 310 - Seminar in Literature & Culture: The Long 19th Century
- ENG 311 - Seminar in Literature & Culture: The 20-21st Century

Two literature and culture surveys from:

- ENG 317 - Survey in Literature & Culture: Medieval
- ENG 318 - Survey in Literature & Culture: Early Modern
- ENG 319 - Survey in Literature & Culture: The Long 18th Century
- ENG 320 - Survey in Literature & Culture: The Long 19th Century
- ENG 321 - Survey in Literature & Culture: The 20-21st Centuries

One course from:

- ENG 301 - Introduction to Writing Studies
- ENG 302 - Introduction to Technical and Professional Writing
- ENG 350 - Introduction to Creative Writing
- ENG 401 - Senior Seminar in Writing Studies and Rhetoric

ENG 313 - Introduction to Critical and Cultural Theories and Practices

ENG 418 - Senior Seminar

ENG 370 - Introduction to Language

(Students who earn a grade of 3.0 or better in LING 201 may substitute a 300 or 400-level English course under advisement for ENG 370.)

Electives: 20 credits. 15 credits must be at the 400 level, 5 credits at either the 300 or 400 level; 300-level historical period courses (e.g. medieval, early modern, etc.) cannot be repeated.

## English — Literature Emphasis, BA, with Teaching Endorsement Option

Department of English, College of Humanities and Social Sciences

**65 credits (58 additional credits for teacher certification)**

### Introduction

English is one of the central liberal arts degrees. A background in English provides graduates with a sound basis for pursuing a variety of careers, including law, business, education, publishing and government, as well as graduate work in creative writing, language, literary and cultural studies, and writing. English engages students in diverse literary heritages as well as fosters the development of sophisticated abilities in critical analysis, creative inquiry, reflective reading, and effective communication and expression.

### Why Consider a Literature Emphasis with Teaching Endorsement Option Major?

The English - Literature Emphasis with Teaching Endorsement Option major focuses on the study of literatures in historical and cultural contexts and includes course work in English language and linguistics, literary theory, and composition and rhetoric, and creative writing. Students in the writing studies, creative writing, and most literature courses are expected to write thoughtful, organized, and clear essays that are free of mechanical errors. If you think you need help with your reading and writing, we strongly encourage you, in addition to your work in English courses, to consult the Writing Center and other university resources.

The English - Literature Emphasis with Teaching Endorsement Option offers students the opportunity for both breadth and depth in the study of literature and culture. In the "Literature and Culture" courses (ENG 307-311; ENG 317-321), which are the core of the major, students gain a sense of historical scope as they explore literatures from a range of periods. In addition, majors take required courses in critical and cultural theory, writing and the history and theory of language. All of these courses provide a solid foundation for intensive study of specialized topics in the upper-level electives and in the senior seminar.

The English – Literature Emphasis with Teaching Endorsement Option, BA major leads to a baccalaureate degree without teacher certification. To receive a recommendation for state of Washington teacher certification with an English Language Arts endorsement, students must complete courses within the English – Literature Emphasis with Teaching Endorsement Option major as specified herein, and the teacher certification program offered by the Department of Secondary Education as one of the following:

- A part of the undergraduate baccalaureate degree
- A post-baccalaureate program
- A part of the Master in Teaching program

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Regulations for teaching endorsement are subject to change. Contact the English Education advisor.

#### Contact Information

##### Undergraduate Program Coordinator

Linda Flanagan, Undergraduate Program Coordinator  
Humanities 327  
360-650-3209  
Linda.Flanagan@wwu.edu

##### Secondary Education Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wwu.edu

##### English Education Advisor

Nancy Johnson  
Humanities 351  
360-650-3227  
Nancy.Johnson@wwu.edu  
**Secondary Education website**  
wce.wwu.edu/sec/secondary-education

#### Sample Careers

Education (teaching or administrating) | Graduate work in Literature and Creative Writing | Graduate work in Composition and Language

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## ENGLISH

### How to Declare (Admission and Declaration Process):

Meet with English Department's Undergraduate Program Coordinator, Linda Flanagan, to declare this major. The prerequisites for declaring the major are 60 credits completed and ENG 202.

To declare the major, contact the Undergraduate Program Coordinator, Linda Flanagan. Though the English Department cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and offer a wide variety of topics each term.

**Advising Tips:** Students are strongly encouraged to meet with the Undergraduate Program Coordinator, Linda Flanagan, early in their careers at Western. Students must declare their major by the start of their junior year.

**English Secondary Education Advisor:** Students must meet with the secondary education academic advisor in the English Department, Nancy Johnson (HU 351, 360-650-3227), to complete a plan of study.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements (65 credits)

- One course from:
  - ENG 301 - Introduction to Writing Studies
  - ENG 302 - Introduction to Technical and Professional Writing
- ENG 313 - Introduction to Critical and Cultural Theories and Practices
- Four literature and culture courses consisting of two seminars and two surveys. Combined, the literature and culture courses must cover four different historical periods. Historical periods should not be repeated.
  - Two literature culture seminars from:
    - ENG 307 - Seminar in Literature & Culture: Medieval
    - ENG 308 - Seminar in Literature & Culture: Early Modern
    - ENG 309 - Seminar in Literature & Culture: The Long 18th Century
    - ENG 310 - Seminar in Literature & Culture: The Long 19th Century
    - ENG 311 - Seminar in Literature & Culture: The 20-21st Century
  - Two literature and culture surveys from:
    - ENG 317 - Survey in Literature & Culture: Medieval
    - ENG 318 - Survey in Literature & Culture: Early Modern
    - ENG 319 - Survey in Literature & Culture: The Long 18th Century
    - ENG 320 - Survey in Literature & Culture: The Long 19th Century
    - ENG 321 - Survey in Literature & Culture: The 20-21st Centuries
- ENG 347 - Studies in Young Adult Literature
- ENG 350 - Introduction to Creative Writing
- ENG 370 - Introduction to Language  
(Students who earn a grade of 3.0 or better in LING 201 may substitute 300 or 400-level English courses under advisement for ENG 370).
- ENG 418 - Senior Seminar
- ENG 436 - The Structure of English
- ENG 443 - Teaching English Language Arts in the Secondary Schools I
- ENG 444 - Teaching English Language Arts in the Secondary Schools II

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity

- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Additional Endorsement

### English Language Arts — Secondary, Additional Endorsement

Department of English, College of Humanities and Social Sciences

**40 credits**

#### Introduction

This additional endorsement program prepares students to teach English Language Arts at the middle and high school, and must be accompanied by a professional education program and a qualifying endorsement in another content area. See the Elementary Education and Secondary Education sections of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Secondary, Additional Endorsement in English Language Arts?

An Additional Endorsement in English Language Arts provides prospective teachers with more teaching options, allowing them to teach English language arts classes as well as classes in the primary subject area in which they have trained. Being able to teach in two areas increases the number of job openings to which one might apply.

#### Contact Information

Nancy Johnson  
Humanities 351  
360-650-3227  
Nancy.Johnson@wwu.edu

#### Sample Careers

Middle and High School Teaching

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ENG 347 - Studies in Young Adult Literature
- ENG 370 - Introduction to Language
- ENG 436 - The Structure of English
- Two courses from:

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ENG 301 - Introduction to Writing Studies  
ENG 302 - Introduction to Technical and Professional Writing  
ENG 350 - Introduction to Creative Writing

□ One course from:

ENG 307 - Seminar in Literature & Culture: Medieval  
ENG 308 - Seminar in Literature & Culture: Early Modern  
ENG 309 - Seminar in Literature & Culture: The Long 18th Century  
ENG 310 - Seminar in Literature & Culture: The Long 19th Century  
ENG 311 - Seminar in Literature & Culture: The 20-21st Century  
ENG 317 - Survey in Literature & Culture: Medieval  
ENG 318 - Survey in Literature & Culture: Early Modern  
ENG 319 - Survey in Literature & Culture: The Long 18th Century  
ENG 320 - Survey in Literature & Culture: The Long 19th Century  
ENG 321 - Survey in Literature & Culture: The 20-21st Centuries

Pedagogy Courses

ENG 443 - Teaching English Language Arts in the Secondary Schools I  
ENG 444 - Teaching English Language Arts in the Secondary Schools II

## Master of Arts

### English, Non-Thesis, MA

Department of English, College of Humanities and Social Sciences

#### Graduate Faculty

**Askari, Kaveh**, PhD, film history and theory, cross-media visual culture, global cinema.

**Beasley, Bruce**, PhD, creative writing (poetry), American literature.

**Brown, Nicole**, PhD, rhetoric and composition, technical writing, visual rhetoric, service learning and cybercultural studies.

**Cushman, Jeremy**, PhD, rhetoric and composition, workplace writing, public rhetorics, digital humanities and postmodern research methodologies.

**Denham, Kristin**, PhD, linguistics, syntax and grammar, dialect, Native American languages and literatures.

**Dietrich, Dawn**, PhD, cinema studies, literature and technology, cyberculture, critical theory.

**Geisler, Marc**, PhD, Renaissance literature and culture, literary theory, politics and literature.

**Giffen, Allison**, PhD, American literature, women's literature.

**Goebel, Bruce**, PhD, American literature, postmodern literature, English education.

**Guess, Carol**, MFA, creative writing (creative nonfiction, fiction, poetry), gay/lesbian/bisexual/transgender literature and theory.

**Johnson, Nancy J.**, PhD, children's literature, English/language arts education.

**Kahakauwila, Kristiana**, MFA, creative writing (fiction and non-fiction), editing and publishing, Pacific Literature.

**Laffrado, Laura**, PhD, American literature, gender studies.

**Loar, Christopher**, PhD, British literature, early American literature, eighteenth-century culture, critical theory, literature and science.

**Lobeck, Anne**, PhD, linguistics, literary theory, gender studies.

**Lucchesi, Andrew**, PhD, rhetoric and composition, professional and technical writing, disability studies.

**Lundeen, Kathleen**, PhD, British literature, critical theory, intermedial art, literature and science, prophetic literature.

**Lyne, William**, PhD, American literature, African-American literature, cultural studies.

**Magee, Kelly**, MFA, creative writing (fiction, nonfiction, multi-genre).

**Mahoney, Kristin**, PhD, Victorian literature and culture, economics and literature.

**Metzger, Mary Janell**, PhD, early modern literature, critical theory, English education, women's literature.

**Miller, Brenda**, PhD, creative writing (fiction and nonfiction), autobiography.

**Paola, Suzanne**, MFA, creative writing (nonfiction and poetry), women's studies.

**Qualley, Donna**, PhD, composition theory and pedagogy, literacy, rhetoric and social class.

**Rivera, Lysa**, PhD, American literatures and culture, Chicana/o and African-American literature, cultural studies, critical theory.

**Trueblood, Kathryn**, MFA, creative writing (fiction), publishing and editing.

**VanderStaay, Steven**, PhD, English education, creative writing (nonfiction), and linguistics.



**Vulic, Kathryn**, PhD, medieval British and Continental literatures and culture, devotional literature.

**Warburton, Theresa**, PhD, feminist theory, women's literature, Native literature, transnational and multiethnic literature, and memoir.

**Wise, Christopher**, PhD, comparative literature and critical theory.

**Youmans, Greg**, PhD, film and media studies, LGBTQ history and historiography, queer and feminist theory.

**Yu, Ning**, PhD, American literatures, science and literature.

#### Contact Information

##### Director of Graduate Studies & Program Advisor

Kristin Mahoney  
Humanities 381  
360-650-3276  
Kristin.Mahoney@wwu.edu

##### Graduate Program Coordinator

Erica Dean-Crawford  
Humanities 325  
360-650-3232  
Erica.Dean-Crawford@wwu.edu

## Goals

The MA program in English is designed for those who desire to prepare for:

- PhD and MFA programs, as well as other advanced degrees
- Teaching at two-year colleges
- Public or private teaching (elementary, middle, secondary)
- Careers in technical writing and communication
- Careers in editing and publishing
- Careers in nonprofit and other business organizations

Depending on the chosen area of concentration, students will attain the following skills:

- Preparation in national and global literatures and cultures, creative writing, critical and cultural theory, film and media, pedagogy, composition and rhetoric, technical writing, professional writing, editing and publishing, and linguistics
- Teaching experience (if awarded a teaching assistantship or internship)
- Professional editing with scholarly and creative writing journals, such as the Bellingham Review
- Professional communication, oral and written
- Competency in the use of classroom and communications technologies
- Awareness of diversity, educational equity, and social justice issues
- Awareness of ethical and reflective pedagogical practices

## Prerequisites

Undergraduate major in English or departmental permission. Candidates with an insufficient background in English are normally requested to acquire 30 upper-division credits in literature and criticism with a grade of B or better in each course. The department reserves the right to approve a course of study.

## Admission

Enrollment is limited to program capacity.

## Application Information

**Deadlines:** Applications for the following academic year must be complete — all materials on file — by January 15 for priority consideration. Applications completed after that date may be considered on a space-available basis. Applications completed after June 1 will not be considered. Admission into the program is for fall quarter.

**Teacher Assistantship Deadlines:** Same as above.

## Supporting Materials:

- Normally the department expects a strong analytic score and a verbal score of at least 153 on the GRE ("Revised" General) exam. Candidates must also provide a 750-word personal statement of

## ENGLISH

background and intention and a writing sample: for admission to creative writing, 10 to 15 pages of prose or 10 to 15 pages of poetry; for admission to English, 7 to 12 pages of written work in literary study.

### English, Non-Thesis (55 credits)

Core requirements:

- ☐ ENG 501 - Literary Theories and Practices
- ☐ 25 credits in literature, criticism, rhetoric or  
ENG 513 - Seminar in Teaching College Composition  
Only five of these 25 credits may be taken in ENG 500 Directed Independent Study.

**Electives:**

- ☐ 25 credits (literature, criticism, creative writing, rhetoric, pedagogy, English language) Occasionally electives in other departments may be chosen in consultation and with permission of the English Department graduate program advisor.

**Credits:**

With the permission of the graduate advisor, a student may take up to 10 credits of some combination of 400-level courses, ENG 500, ENG 509, and ENG 594. No more than 5 credits of ENG 500 may be applied toward the degree.

### Additional Information

### Other Requirements

Students must demonstrate reading competence in a second language acceptable to the department's Graduate Studies Committee or take an additional 5-credit 400 or 500-level course focused on the study of language. Normally competence in a second language is demonstrated by successfully completing the final course in a second-year language sequence or by passing a reading competency exam in the language.

Students must also pass a written Graduate Exam in their concentration.

Additional information about these requirements, the non-thesis option and program procedures, is available from the English graduate program office.

## English, Thesis, MA

Department of English, College of Humanities and Social Sciences

### Graduate Faculty

**Askari, Kaveh**, PhD, film history and theory, cross-media visual culture, global cinema.

**Beasley, Bruce**, PhD, creative writing (poetry), American literature.

**Brown, Nicole**, PhD, rhetoric and composition, technical writing, visual rhetoric, service learning and cybercultural studies.

**Cushman, Jeremy**, PhD, rhetoric and composition, workplace writing, public rhetorics, digital humanities and postmodern research methodologies.

**Denham, Kristin**, PhD, linguistics, syntax and grammar, dialect, Native American languages and literatures.

**Dietrich, Dawn**, PhD, cinema studies, literature and technology, cyberculture, critical theory.

**Geisler, Marc**, PhD, Renaissance literature and culture, literary theory, politics and literature.

**Giffen, Allison**, PhD, American literature, women's literature.

**Goebel, Bruce**, PhD, American literature, postmodern literature, English education.

**Guess, Carol**, MFA, creative writing (creative nonfiction, fiction, poetry), gay/lesbian/bisexual/transgender literature and theory.

**Johnson, Nancy J.**, PhD, children's literature, English/language arts education.

**Kahakauwila, Kristiana**, MFA, creative writing (fiction and non-fiction), editing and publishing, Pacific literature.

**Laffrado, Laura**, PhD, American literature, gender studies.

**Loar, Christopher**, PhD, British literature, early American literature, eighteenth-century culture, critical theory, literature and science.

**Lobeck, Anne**, PhD, linguistics, literary theory, gender studies.

**Lucchesi, Andrew**, PhD, rhetoric and composition, professional and technical writing, disability studies.

**Lundeen, Kathleen**, PhD, British literature, critical theory, intermedial art, literature and science, prophetic literature.

**Lyne, William**, PhD, American literature, African-American literature, cultural studies.

**Magee, Kelly**, MFA, creative writing (fiction, nonfiction, multi-genre).

**Mahoney, Kristin**, PhD, Victorian literature and culture, economics and literature.

**Metzger, Mary Janell**, PhD, early modern literature, critical theory, English education, women's literature.

**Miller, Brenda**, PhD, creative writing (fiction and nonfiction), autobiography.

**Paola, Suzanne**, MFA, creative writing (nonfiction and poetry), women's studies.

**Qualley, Donna**, PhD, composition theory and pedagogy, literacy, rhetoric and social class.

**Rivera, Lysa**, PhD, American literatures and culture, Chicana/o and African-American literature, cultural studies, critical theory.

**Trueblood, Kathryn**, MFA, creative writing (fiction), publishing and editing.

**VanderStaay, Steven**, PhD, English education, creative writing (nonfiction), and linguistics.

**Vulic, Kathryn**, PhD, medieval British and Continental literatures and culture, devotional literature.

**Warburton, Theresa**, PhD, feminist theory, women's literature, Native literature, transnational and multiethnic literature, and memoir.

**Wise, Christopher**, PhD, comparative literature and critical theory.

**Youmans, Greg**, PhD, film and media studies, LGBTQ history and historiography, queer and feminist theory.

**Yu, Ning**, PhD, American literatures, science and literature.

#### Contact Information

##### Director of Graduate Studies & Program Advisor

Kristin Mahoney  
Humanities 381  
360-650-3276  
Kristin.Mahoney@wwu.edu

##### Graduate Program Coordinator

Erica Dean-Crawford  
Humanities 325  
360-650-3232  
Erica.Dean-Crawford@wwu.edu

## Goals

The MA program in English is designed for those who desire to prepare for:

- PhD and MFA programs, as well as other advanced degrees
- Teaching at two-year colleges
- Public or private teaching (elementary, middle, secondary)
- Careers in technical writing and communication
- Careers in editing and publishing
- Careers in nonprofit and other business organizations

Depending on the chosen area of concentration, students will attain the following skills:

- Preparation in national and global literatures and cultures, creative writing, critical and cultural theory, film and media, pedagogy, composition and rhetoric, technical writing, professional writing, editing and publishing, and linguistics
- Teaching experience (if awarded a teaching assistantship or internship)
- Professional editing with scholarly and creative writing journals, such as the Bellingham Review
- Professional communication, oral and written
- Competency in the use of classroom and communications technologies
- Awareness of diversity, educational equity, and social justice issues
- Awareness of ethical and reflective pedagogical practices

## Prerequisites

Undergraduate major in English or departmental permission. Candidates with an insufficient background in English are normally requested to acquire 30 upper-division credits in literature and criticism with a grade of B or better in each course. The department reserves the right to approve a course of study.

## Admission

Enrollment is limited to program capacity.

# ENGLISH

## Application Information

**Deadlines:** Applications for the following academic year must be complete — all materials on file — by January 15 for priority consideration. Applications completed after that date may be considered on a space-available basis. Applications completed after June 1 will not be considered. Admission into the program is for fall quarter.

**Teacher Assistantship Deadlines:** Same as above.

### Supporting Materials:

- ☐ Normally the department expects a strong analytic score and a verbal score of at least 153 on the GRE ("Revised" General) exam. Candidates must also provide a 750-word personal statement of background and intention and a writing sample: for admission to creative writing, 10 to 15 pages of prose or 10 to 15 pages of poetry; for admission to English, 7 to 12 pages of written work in literary study.

## English, Thesis (55 credits)

### Core Requirements:

- ☐ ENG 501 - Literary Theories and Practices
- ☐ 25 credits in literature, criticism, rhetoric or  
ENG 513 - Seminar in Teaching College Composition (for Teaching Assistants)  
Only five of these 25 credits may be taken in ENG 500 Directed Independent Study.

### Electives:

- ☐ 20 credits in literature, criticism, creative writing, rhetoric, pedagogy, or English language. Occasionally electives in other departments may be chosen in consultation and with permission of the English Department graduate program advisor.

### Credits:

With the permission of the graduate advisor, a student may take up to 10 credits of some combination of 400-level courses, ENG 500, ENG 509, and ENG 594. No more than 5 credits of ENG 500 may be applied toward the degree.

### Thesis:

- ☐ ENG 690 - Thesis Writing (5 credits)  
Students must be nominated by a faculty member, and the thesis must be approved by the Director of Graduate Studies.

## Additional Information

### Other Requirements

Students must demonstrate reading competence in a second language acceptable to the department's Graduate Studies Committee or take an additional 5-credit 400- or 500-level course focused on the study of language. Normally competence in a second language is demonstrated by successfully completing the final course in a second-year language sequence or by passing a reading competency exam in the language.

Students must also pass a written Graduate Exam in their concentration.

Additional information about these requirements, the thesis option and program procedures, is available from the English graduate program office.

## Master of Fine Arts

### Creative Writing, MFA

Department of English, College of Humanities and Social Sciences

### 55 Credits

## Graduate Faculty

**Askari, Kaveh**, PhD, film history and theory, cross-media visual culture, global cinema.  
**Beasley, Bruce**, PhD, creative writing (poetry), American literature.  
**Brown, Nicole**, PhD, rhetoric and composition, technical writing, visual rhetoric, service learning and cybercultural studies.  
**Cushman, Jeremy**, PhD, rhetoric and composition, workplace writing, public rhetorics, digital humanities and postmodern research methodologies.  
**Denham, Kristin**, PhD, linguistics, syntax and grammar, dialect, Native American languages and literatures.  
**Dietrich, Dawn**, PhD, cinema studies, literature and technology, cyberculture, critical theory.  
**Geisler, Marc**, PhD, Renaissance literature and culture, literary theory, politics and literature.  
**Giffen, Allison**, PhD, American literature, women's literature.  
**Goebel, Bruce**, PhD, American literature, postmodern literature, English education.  
**Guess, Carol**, MFA, creative writing (creative nonfiction, fiction, poetry), gay/lesbian/bisexual/transgender literature and theory.  
**Johnson, Nancy J.**, PhD, children's literature, English/language arts education.  
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**Lundeen, Kathleen**, PhD, British literature, critical theory, intermedial art, literature and science, prophetic literature.  
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**Magee, Kelly**, MFA, creative writing (fiction, nonfiction, multi-genre).  
**Mahoney, Kristin**, PhD, Victorian literature and culture, economics and literature.  
**Metzger, Mary Janell**, PhD, early modern literature, critical theory, English education, women's literature.  
**Miller, Brenda**, PhD, creative writing (fiction and nonfiction), autobiography.  
**Paola, Suzanne**, MFA, creative writing (nonfiction and poetry), women's studies.  
**Qualley, Donna**, PhD, composition theory and pedagogy, literacy, rhetoric and social class.  
**Rivera, Lysa**, PhD, American literatures and culture, Chicana/o and African-American literature, cultural studies, critical theory.  
**Trueblood, Kathryn**, MFA, creative writing (fiction), publishing and editing.  
**VanderStaay, Steven**, PhD, English education, creative writing (nonfiction), and linguistics.  
**Vulic, Kathryn**, PhD, medieval British and Continental literatures and culture, devotional literature.  
**Warburton, Theresa**, PhD, feminist theory, women's literature, Native literature, transnational and multiethnic literature, and memoir.  
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**Yu, Ning**, PhD, American literatures, science and literature.

### Contact Information

#### Director of Graduate Studies & Program Advisor

Kristin Mahoney  
 Humanities 381  
 360-650-3276  
 Kristin.Mahoney@wwu.edu

#### Graduate Program Coordinator

Erica Dean-Crawford  
 Humanities 325  
 360-650-3232  
 Erica.Dean-Crawford@wwu.edu

## Introduction

Western Washington University's English Department offers a 2-year MFA program in Creative Writing within a community that values creative development and intellectual versatility. We encourage a focus on multigenre or cross-genre writing, based on our view that creative writing graduates need to be versatile in their comprehension of genre conventions and conversant in the way diverse genres inform one another. A variety of courses we offer stress either a multigenre focus or encourage experimental works that blur genre boundaries.

Creative writing practice and literary study are synergistic in our program. Students take seminars in creative writing and literature, as well as courses in rhetorical thinking and composition, digital and technical writing,

## ENGLISH

film studies, and linguistics. We offer Graduate Assistantships that provide quality teacher training, as well as opportunities to gain editorial experience with the award-winning journal *Bellingham Review*.

### Goals

The MFA program in English is designed for those who desire to prepare for:

- Life as a serious author, with an understanding of the literary marketplace and publication
- PhD programs, as well as other advanced degrees in fields such as law or teaching
- Teaching at both two- and four-year colleges and universities
- Public or private teaching (elementary, middle, secondary)
- Careers in technical writing and communication
- Careers in editing and publishing
- Careers in nonprofit and other business organizations

Students will attain the following skills:

- Fluency in multigenre or cross-genre writing and comprehension of genre conventions, as well as the way diverse genres can inform one another
- Professionalism in creative writing, along with in-depth literary study in areas that might include national and global literatures and cultures, critical and cultural theory, film and media, pedagogy, composition and rhetoric, technical writing, professional writing, editing and publishing, and linguistics
- Teaching experience (if awarded a teaching assistantship or internship)
- Professional editing with scholarly and creative writing journals, such as the *Bellingham Review*
- Professional communication, oral and written
- Competency in the use of classroom and communications technologies
- Awareness of diversity, educational equity, and social justice issues
- Awareness of ethical and reflective pedagogical practices

### Prerequisites

Undergraduate major in English or Creative Writing, or departmental permission. Candidates with an insufficient background in English are normally requested to acquire 30 upper-division credits in creative writing, literature, and/or criticism with a grade of B or better in each course. The department reserves the right to approve a course of study.

### Application Information

**Deadlines:** Applications for the following academic year must be complete — all materials on file — by January 15 for priority consideration. Applications completed after that date may be considered on a space-available basis. Applications completed after June 1 will not be considered. Admission into the program is for fall quarter.

**Teaching Assistantship Deadlines:** Same as above.

The materials submitted for admission must include:

- A statement of purpose: this statement should explain intellectual and/or creative interests, and professional goals. If you are interested in being considered for a funded Teaching Assistantship, please include relevant experience and information that will aid the department in making funding decisions.
- Two writing samples. Creative Writing: 10 to 15 pages of prose (fiction or creative nonfiction); or 10 to 15 pages of poetry; or a combination of genres, 15 pages total; AND a Critical writing sample: 7 to 12 pages of analytical work in literary study.
- Appropriate admissions forms.
- For the GRE 'Revised' General Test, the expected verbal score on the new scale is at least 153.

## Program Requirements

- ❑ ENG 501 - Literary Theories and Practices
- ❑ 20 credits in creative writing courses, to be taken in at least two different genres from the following:
  - ENG 502 - Seminar in the Writing of Fiction
  - ENG 504 - Seminar in the Writing of Poetry
  - ENG 505 - Seminar in the Writing of Nonfiction
  - ENG 506 - Seminar in Creative Writing: Multigenre
  - ENG 520 - Studies in Poetry \*
  - ENG 525 - Studies in Fiction \*
  - ENG 535 - Studies in Nonfiction \*

\*These courses may be taken as either creative writing or literature credits, depending on the nature of the final project. To use them as part of the creative writing core requirement, students must take them as creative writing courses.
- ❑ 20 credits in literature, composition/rhetoric, pedagogy, or critical theory, to be taken from the following:
  - ENG 500 - Directed Independent Study
  - ENG 509 - Internship in Writing, Editing and Production
  - ENG 510 - Seminar: Topics in Rhetoric
  - ENG 513 - Seminar in Teaching College Composition (required for Graduate Teaching Assistants in the Freshman Composition program)
  - ENG 515 - Studies in Literary and Critical Theory
  - ENG 540 - Studies in Global Literatures
  - ENG 550 - Studies in American Literatures
  - ENG 560 - Studies in British Literature
  - ENG 570 - Topics in Cultural Studies
  - ENG 575 - Studies in Women's Literature
  - ENG 580 - Studies in Film
  - ENG 594 - Practicum in Teaching
  - ENG 598 - Seminar in the Teaching of English

ENG 520, 525, and 535 (see creative writing courses) may also be used for literature credit, depending on the nature of the final project. The same course may not be used for both literature and creative writing credit.
- ❑ ENG 690 - Thesis Writing (10 credits)
 

**NOTE:** With the permission of the graduate advisor, a student may take up to 10 credits of some combination of approved 400-level courses, ENG 500, ENG 509, and ENG 594. No more than 5 credits of ENG 500 may be applied toward the degree.

Students are encouraged to fill out their two years of study with electives that stress creative writing, pedagogy, editing/publishing, literature, or rhetoric, as dictated by the student's interests and career goals.

## Additional Requirements

1. Fulfillment of the English Graduate Program Language Requirement
2. Successful completion of the Creative Writing Graduate Exam
3. A successful creative thesis, with a critical preface, approved by the student's Creative Writing Thesis Committee and the Graduate School

## Minor

### Creative Writing Minor

Department of English, College of Humanities and Social Sciences

#### 25 Credits

#### Introduction

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The Creative Writing minor focuses on writing courses: creative writing in fiction, drama, poetry, or nonfiction prose.

Courses taken for credit in minor programs may not be counted toward English major programs.

### Why Consider a Creative Writing Minor?

Creative writing minors develop skills in creative thought and expression through study and practice of the craft of fiction, creative nonfiction, poetry, and/or drama. Students participate in both the critical analysis and creative practice of writing, gaining widely-applicable experience in self-expression, artistic technique, and modes of communication.

#### Contact Information

Linda Flanagan, Undergraduate Program Coordinator

Humanities 327

360-650-3209

Linda.Flanagan@wwu.edu

#### Sample Careers

Freelance writer | Web content writer | Editor/Publisher | Writing Teacher | Video game writer/designer | Ghostwriter

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingmajor.shtml](http://www.wwu.edu/careers/students_choosingmajor.shtml)

New Pages: [www.newpages.com](http://www.newpages.com)

Poets & Writers: [www.pw.org](http://www.pw.org)

Association of Writers and Writing Programs (AWP): [www.awpwriter.org](http://www.awpwriter.org)

### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator to declare this minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Four creative writing courses including work in at least two genres
- An elective under advisement from the 300 and 400 level courses

## English Linguistics Minor

Department of English, College of Humanities and Social Sciences

### 23-25 Credits

#### Introduction

Linguistics is the scientific study of language. Students study the different components of grammar (syntax, phonology, morphology and semantics), how language changes over time, how it varies from speech community to speech community; how it is acquired by children; and how the brain is organized for language. English linguistics is the scientific study of the English language; its grammatical structure, dialects, and history. Courses in English Linguistics also address linguistic ideology and discrimination in U.S. institutions, linguistics in K-12 education, and English as a global language.

Courses taken for credit in minor programs may not be counted toward English majors.



## Why Consider a Linguistics Minor?

Students take courses in English linguistics (the structure and history of English, etc.) as well as a selection of core courses in the Linguistics Program (syntax, phonology, etc.). Students graduate with a degree in English that also recognizes their interest and expertise in Linguistics.

### Contact Information

Anne Lobeck	Kristin Denham
English Department and Linguistics Program	English Department and Linguistics Program
Anne.Lobeck@wwu.edu	Kristin.Denham@wwu.edu

### Sample Careers

Teach and research at the university level | Work in K-12 education to improve teaching about language | Teach English as a Second Language | Work in publishing, technical writing, journalism | Work with dictionaries (lexicography) | Become a consultant on language in professions such as law or medicine | Work in the computer industry

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

<http://www.linguisticsociety.org/>

<http://www.americandialect.org/>

<http://linguistlist.org/>

<http://www.ncte.org/>

<http://www.mla.org/>

## How to Declare (Admission and Declaration Process):

Meet with English Department's Undergraduate Program Coordinator or the English Linguistics Minor advisor to declare this minor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENG 436 - The Structure of English
- ENG 438 - Cultural History of English
- ENG 439 - Topics in Language and Linguistics \*
- Linguistics courses under advisement at the 300 and 400 level  
May be repeated once with a different topic.

## English Minor

Department of English, College of Humanities and Social Sciences

### 25 Credits

### Introduction

The study of English offers students the opportunity to study and work with texts that have shaped, and been shaped by, the English language. We offer a diverse spectrum of classes ranging from antiquity to the twenty-first century and covering a wide variety of topics in literature, media, composition, and language studies. English courses encompass and explore multiple cultural traditions, allowing students to cultivate skill in critical thinking, creative expression, close reading, persuasive writing, and effective speaking.

Courses taken for credit in minor programs may not be counted toward English majors.

## ENGLISH

### Why Consider an English Minor?

An English Minor provides you with three essential tools for success in a wide range of careers: the ability to read critically, write clearly and specifically, and understand the ideas and experiences that shape the histories of our local, national and global communities. Employers and professions of all kinds value such abilities and look for those who have them.

#### Contact Information

Linda Flanagan, Undergraduate Program Coordinator  
Humanities 327  
360-650-3209  
Linda.Flanagan@wwu.edu

#### Sample Careers

Publishing and editing | Human management and development | Education | Government and law | Public relations | Healthcare and technology

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with English Department's Undergraduate Program Coordinator to declare this minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ❑ 25 credits of English at the 200 level or above, with a minimum of 15 credits at the 300 or 400 level

### Film Studies Minor

Department of English, College of Humanities and Social Sciences

#### 23-25 Credits

#### Introduction

In the Film Studies minor students will engage major artistic, technological, commercial and social developments throughout cinema and media history. They will learn a language of analysis that will equip them to communicate about and with moving images.

Courses taken for credit in minor programs may not be counted toward English majors.

### Why Consider a Film Studies Minor?

The study of film is one of the fastest growing disciplines at American colleges and universities. While the Film Studies minor provides a solid foundation for further professional development in the fields of filmmaking, curating, or media publishing, it also fosters a broad base of abilities sought by employers in a variety of employment sectors. At Western we encourage students to combine critical writing with hands-on moving image projects because we value the multimedia communication skills that are becoming increasingly important, not only in the job market, but for all informed citizens. The film studies minor at Western also emphasizes that film is a global medium and welcomes students with interests in global studies.

#### Contact Information

Linda Flanagan, Undergraduate Program Coordinator  
Humanities 327

360-650-3209

Linda.Flanagan@wwu.edu

#### Sample Careers

Filmmaker | Film Programmer | Archivist/Preservationist | Secondary or Higher Education | Film/TV Critic | Screenwriter | Multimedia publishing | Arts Administration

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

<http://navigator.wlu.ca/career/student/planning/discipline/film-studies.htm>

<http://uncw.edu/career/filmstudies.html>

<https://www.bc.edu/content/bc/schools/cas/finearts/filmstudies/major.html>

<http://www.afi.com/>

### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator or the Film Studies Minor Advisor to declare this minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENG 364 - Introduction to Film Studies
  - ENG 365 - Topics in Film History \*
  - ENG 464 - Topics in Film Studies \*
  - Courses under advisement at the 300 and 400 level to be selected from courses in theory, film and other visual media, including offerings in other departments, such as HIST 364, FAIR 326, FAIR 361
- \*May be repeated once with a different topic.

## Women's Literature Minor

Department of English, College of Humanities and Social Sciences

### 25 Credits

### Introduction

The study of Women's Literature includes the study of literature written by women and analysis of the representation of the wide range of issues that shape their lives and work, including but not limited to the construction of gender, sexuality, age, race and class.

Courses taken for credit in minor programs may not be counted toward English majors.

### Why Consider a Women's Literature Minor?

A Women's Literature Minor provides you with essential tools for success in a wide range of careers: the ability to read critically, write clearly and specifically, and synthesize information and arguments drawn from diverse disciplines and perspectives as a means of interpreting a single text. Employers and professions of all kinds value such abilities and look for those who have them.

#### Contact Information

Linda Flanagan, Undergraduate Program Coordinator

Humanities 327

360-650-3209

Linda.Flanagan@wwu.edu

#### Sample Careers

## ENGLISH

Publishing and editing | Human management and development | Education | Government and the law | Public relations | Healthcare and technology, among others

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator to declare this minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ❑ Courses under advisement at the 300 and 400 level, to be selected from courses in women writers, topics focused on the work of women writers, and topics in language and power of gender

## Writing Studies Minor

Department of English, College of Humanities and Social Sciences

### 25 Credits

### Introduction

The Writing Studies minor is a 25 credit minor that includes courses that focus on deepening and extending your thinking and rhetorical flexibility. That is, these courses are designed to help students to develop the capacity to anticipate and appropriately respond to the particular needs of readers, and to build and examine texts, both print and digital, for widely differing contexts.

Courses taken for credit in minor programs may not be counted toward English majors.

### Why Consider a Writing Studies Minor?

Writing, in all its diverse forms, is the backbone of a university education and is also critical for most professions. Good written communication includes the ability to think deeply, reflectively, and rhetorically and develops a capacity to both foster and adapt to change. The versatility and flexibility that the Writing Studies minor offers will benefit your work in college and beyond because writing (or composing) effectively in different environments matters regardless of the life you're chasing after. Simply put, good writing, in whatever form it takes, can make lots happen - for you and for others.

### Contact Information

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Humanities 327

360-650-3209

[Linda.Flanagan@wvu.edu](mailto:Linda.Flanagan@wvu.edu)

### Sample Careers

While some careers are focused specifically on writing expertise (professional writing, technical writing, grant writing, literary writing, feature writing, reviewing, publishing, copy-editing, etc.), employers in almost every profession desire people with rhetorical awareness and a range of writing proficiencies. For example, a Writing Studies minor will benefit project managers, user experience experts, game designers, medical professionals, even engineers. The passions that you take up will almost surely involve writing.

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Meet with the Undergraduate Program Coordinator or the Writing Studies Minor Advisor to declare this minor.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- Two courses from:
  - ENG 301 - Introduction to Writing Studies
  - ENG 302 - Introduction to Technical and Professional Writing
  - ENG 371 - Introduction to Rhetorical Analysis
- One course from:
  - ENG 401 - Senior Seminar in Writing Studies and Rhetoric
  - ENG 402 - Advanced Technical and Professional Writing
  - ENG 442 - Studies in Literacy
  - ENG 461 - Internship in English: Professional Identity
  - ENG 462 - Topics in Professional and Technical Writing \*
- Courses under advisement at the 300 and 400 level to be selected from courses in visual media and writing, including offerings in other departments.
  - \*Repeatable once.

**English Courses****ENG 100 - Introduction to College Writing**

A writing course that offers practice in reading complex texts, writing with fluency and using the conventions of standard written English. Regularly scheduled conferences with instructor required. S/U grading.

**Credits:** 5  
**Grade Mode:** S/U

**ENG 101 - Writing and Critical Inquiry**

A computer-mediated composition course designed to help students, through extended inquiry in reading, writing, and discussion, develop and practice those critical and reflective habits of mind that will serve them personally, academically, and professionally. Introduces students to the processes of analysis and revision with the aim of increasing students' knowledge and control of the specific conventions writers use to clearly formulate and communicate their ideas to different audiences. Regularly scheduled conferences with instructor required. Students needing to satisfy Block A of the communications section of the General University Requirements are required to do so prior to completion of 45 credits.

**Prerequisites & Notes:** may not be taken concurrent with ENG 100  
**Credits:** 5

**Grade Mode:** Letter  
**GUR Attributes:** ACOM

**ENG 110 - Writing, Designing, Remixing with Western Reads**

In this computer-mediated writing course, students respond to the Western Reads text by constructing and designing different kinds of print, visual, and oral texts. This course is recommended for freshmen.

**Credits:** 2  
**Grade Mode:** Letter

**ENG 195 - Introduction to Creative and Technical Writing**

An intensive introduction to creative and technical writing for entering freshmen.

**Credits:** 2  
**Grade Mode:** S/U

**ENG 201 - Writing In Humanities**

Advanced instruction and practice in writing using ideas, texts and questions from a specified topic in the humanities. Areas and focus vary with section.

**Prerequisites & Notes:** ENG 101 or 4/5 AP English Language Exam.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** CCOM

**ENG 202 - Writing About Literature**

## ENGLISH

A writing course designed to help students develop the skills of close reading and careful analysis of literary texts, with particular attention to how language, style, and form contribute to a text's social or political claims. Introduces students to the challenge of situating themselves in relation to a literary text and the critical conversation about that text, and crafting multi-draft critical essays with a focused, arguable thesis supported by thoughtful sequence of claims and carefully selected textual evidence.

**Prerequisites & Notes:** ENG 101.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### ENG 214 - Shakespeare

Analysis, interpretation and discussion of a selected number of Shakespeare's plays: histories, comedies, tragedies and romances.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### ENG 215 - British Literature

Analysis, interpretation and discussion of a range of texts in British literature with attention to cultural contexts.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### ENG 216 - American Literature

Analysis, interpretation and discussion of a range of texts in American literature with attention to cultural contexts.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### ENG 227 - Gay, Lesbian, Bisexual and Transgender Literature

Analysis, interpretation and discussion of a range of texts by gay, lesbian, bisexual and transgendered authors.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### ENG 234 - African-American Literature

Analysis, interpretation and discussion of written, spoken and visual texts by African-American men

and women from the 18th century to the present.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### ENG 235 - American Indian Literatures

Analysis, interpretation and discussion of written, spoken and visual texts in English and translation by writers and storytellers of Native American descent.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### ENG 236 - Asian-American Literatures

Analysis, interpretation and discussion of written and visual texts in English and translation by and about Asian-Americans.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### ENG 238 - Society Through Its Literature

A thematic approach to literature, with different themes exploring the relationship between literary forms and society. Repeatable once as an elective with different topics. May be taken only once for GUR credit.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### ENG 239 - Latina/o Literatures

Analysis, interpretation and discussion of a range of texts in English and in translation by Latina/o authors.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### ENG 270 - Language and Society

A thematic approach to the study of language use in society, with different themes exploring the relationship between language, meaning, and the social contexts in which they occur. May be taken only once for GUR credit.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### ENG 282 - Global Literatures

Analysis, interpretation and discussion of a range of texts in global literatures with attention to cultural contexts.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **ENG 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ENG 301 - Introduction to Writing Studies**

Inquiry and practice of writing in personal, public and academic contexts. Emphasis on expressive, analytical, critical, and collaborative forms of writing as appropriate. Repeatable with different topics up to 10 credits including original course.

**Prerequisites & Notes:** ENG 101; junior status  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 302 - Introduction to Technical and Professional Writing**

Introduction to major contemporary strategies and conventions used in written and oral communication for multiple audiences in professional settings. Covers a variety of written forms used in the preparation and design of technical and business documents, critical analyses of these forms and practices, and the ethical and social implications of a technical writer's choices.

**Prerequisites & Notes:** ENG 101; junior standing.  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 307 - Seminar in Literature & Culture: Medieval**

A research and writing intensive course in the context of the literary history of the medieval period. Students will develop the skills to research and write about literary texts and participate in the critical conversations about them. (Only one of ENG 307 and ENG 317 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202

**Credits:** 5  
**Grade Mode:** Letter

### **ENG 308 - Seminar in Literature & Culture: Early Modern**

A research and writing intensive course in the context of the literary history of the Early Modern period. Students will develop the skills to research and write about literary texts and participate in the critical conversations about them. (Only one of ENG 308 and ENG 318 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 309 - Seminar in Literature & Culture: The Long 18th Century**

A research and writing intensive course in the context of the literary history of the long eighteenth century. Students will develop the skills to research and write about literary texts and participate in the critical conversations about them. (Only one of ENG 309 and ENG 319 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 310 - Seminar in Literature & Culture: The Long 19th Century**

A research and writing intensive course in the context of the literary history of the long nineteenth century. Students will develop the skills to research and write about literary texts and participate in the critical conversations about them. (Only one of ENG 310 and ENG 320 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 311 - Seminar in Literature & Culture: The 20-21st Century**

A research and writing intensive course in the context of the literary history of the 20-21st century. Students will develop the skills to research and write about literary texts and participate in the critical conversations about them. (Only one of ENG 311 and ENG 321 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202  
**Credits:** 5  
**Grade Mode:** Letter

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### **ENG 313 - Introduction to Critical and Cultural Theories and Practices**

Introduction to a range of critical and cultural theories in a historical context. Emphasis on critical reading and writing in preparation for 400-level courses in literary and cultural studies.

**Prerequisites & Notes:** ENG 202

**Credits:** 5

**Grade Mode:** Letter

### **ENG 317 - Survey in Literature & Culture: Medieval**

Analysis, interpretation and discussion of texts in English or in translation from the medieval period with an attention to literary history. (Only one of ENG 307 and ENG 317 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202

**Credits:** 5

**Grade Mode:** Letter

### **ENG 318 - Survey in Literature & Culture: Early Modern**

Analysis, interpretation and discussion of texts in English or in translation from the Early Modern period with an attention to literary history. (Only one of ENG 308 and ENG 318 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202

**Credits:** 5

**Grade Mode:** Letter

### **ENG 319 - Survey in Literature & Culture: The Long 18th Century**

Analysis, interpretation and discussion of texts in English or in translation from the long eighteenth century with an attention to literary history. (Only one of ENG 309 and ENG 319 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202

**Credits:** 5

**Grade Mode:** Letter

### **ENG 320 - Survey in Literature & Culture: The Long 19th Century**

Analysis, interpretation and discussion of texts in English or in translation from the long nineteenth century with an attention to literary history. (Only one of ENG 310 and ENG 320 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202

**Credits:** 5

**Grade Mode:** Letter

### **ENG 321 - Survey in Literature & Culture: The 20-21st Centuries**

Analysis, interpretation and discussion of texts in English or in translation from the 20-21st centuries with an attention to literary history. (Only one of ENG 311 and ENG 321 may be taken for credit in English majors and minors.)

**Prerequisites & Notes:** ENG 202

**Credits:** 5

**Grade Mode:** Letter

### **ENG 331 - Studies in Gender Theory**

This course will examine gender theory, with varying emphases, including but not limited to feminist, queer, trans, intersectional and critical race theory. Repeatable with different topics up to 10 credits including original course. Also offered as WGSS 331.

**Prerequisites & Notes:** ENG 202 or WGSS 211

**Credits:** 5

**Grade Mode:** Letter

### **ENG 332 - Literature and Philosophy**

Comparative study of the concepts, techniques and concerns of philosophical inquiry and literary analysis as they arise in the philosophical essay and the literary forms of poetry, drama, fiction, creative nonfiction, film and electronic art in English and translation.

**Prerequisites & Notes:** ENG 101

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **ENG 333 - Topics in Global Literature**

Studies in world literature in English or translation and of their historical and cultural contexts.

**Prerequisites & Notes:** ENG 202

**Credits:** 5

**Grade Mode:** Letter

### **ENG 334 - Literary and Creative Expression Across North America and Europe**

Analysis primarily of North American and European texts with engagement in issues of multiculturalism and cultural diversity. Repeatable once as an elective with different topics. May be taken only once for GUR credit.

**Prerequisites & Notes:** ENG 101 or equivalent.



**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America**

Analysis primarily of texts of Asia, Africa, the Middle East and Latin America. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 101 or equivalent.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **ENG 336 - Scriptural Literatures**

Analysis of literary texts in one or more religious traditions, which originated in Asia, Africa, the Middle East and Latin America; study of scriptural literature as a source of cultural paradigms.

**Prerequisites & Notes:** ENG 101.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **ENG 338 - Women and Literature in North America and Europe**

Study of women's texts in various cultures primarily of North America and Europe, including thematic and stylistic development within cultural context.

**Prerequisites & Notes:** ENG 101  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **ENG 339 - Mythology and Literature**

Comparative study of the patterns, motifs and techniques in world mythologies as they recur and evolve in poetry, drama, fiction, creative nonfiction, film and electronic media in English and translation.

**Prerequisites & Notes:** ENG 202  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **ENG 341 - Studies in Children's Literature**

Examination of the variety and diversity of literature written for children and adolescents; exploration of book format, major genres, and works by notable authors and illustrators.

**Prerequisites & Notes:** ENG 202  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 342 - Studies in Literary Genres**

Studies in literature from the perspective of genre and of topics in particular literary genres.

**Prerequisites & Notes:** ENG 202  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 347 - Studies in Young Adult Literature**

Studies in literature written for and/or by young adults. May focus on literary history, genres, theme, critical approaches or specific authors. Class assignments and discussion may focus on using this literature with young adults in secondary schools and in a home setting.

**Prerequisites & Notes:** ENG 202 or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 350 - Introduction to Creative Writing**

Examines the fundamentals of at least two genres, such as fiction, nonfiction, playwriting, or poetry. The course will include both lectures, focused on model texts, and workshop-style discussions, focused on student work.

**Prerequisites & Notes:** ENG 101  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 351 - Introduction to Fiction Writing**

Examines the fundamental tools available to writers of fiction: point of view, dialog, characterization and voice. The course introduces the terms and protocol of workshop critique.

**Prerequisites & Notes:** ENG 101  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 353 - Introduction to Poetry Writing**

Introduction to the techniques of poetry writing, including craft, practice and modeling.

**Prerequisites & Notes:** ENG 101  
**Credits:** 5  
**Grade Mode:** Letter

### **ENG 354 - Introduction to Creative Nonfiction Writing**

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An introductory course in writing nonfiction prose, such as personal essay, memoir, autobiography, travel writing, and other forms.

**Prerequisites & Notes:** ENG 101

**Credits:** 5

**Grade Mode:** Letter

### ENG 364 - Introduction to Film Studies

Overview of the conventions and techniques of narrative cinema with some readings in film theory.

**Prerequisites & Notes:** ENG 101

**Credits:** 5

**Grade Mode:** Letter

### ENG 365 - Topics in Film History

Analysis, interpretation and discussion of films belonging to a particular period in film history. Repeatable with different topics up to ten credits including original course.

**Prerequisites & Notes:** ENG 364 or ENG 202

**Credits:** 5

**Grade Mode:** Letter

### ENG 370 - Introduction to Language

Overview of language structure and use. Topics include phonology, morphology, syntax and semantics, how language is acquired, and how it changes over space and time. Emphasis on English as a global language.

**Prerequisites & Notes:** ENG 101

**Credits:** 5

**Grade Mode:** Letter

### ENG 371 - Introduction to Rhetorical Analysis

Introduction to rhetorical theories and analysis.

**Prerequisites & Notes:** ENG 101 and junior status.

**Credits:** 5

**Grade Mode:** Letter

### ENG 381 - Academic Writing

A course for international transfer students that focuses on multi-disciplinary, academic writing.

**Prerequisites & Notes:** Instructor permission

**Credits:** 5

**Grade Mode:** Letter

### ENG 382 - University Culture

An academic support class for international

transfer students that focuses on the knowledge and critical thinking skills needed to be successful at WWU.

**Prerequisites & Notes:** Instructor permission

**Credits:** 2

**Grade Mode:** Letter

### ENG 385 - Sustainability Literacy II

Advanced instruction and practice in applying systems thinking to writing projects related to the topic of sustainability.

**Prerequisites & Notes:** ENVS 116 or ENG 201 or ENG 202.

**Credits:** 5

**Grade Mode:** Letter

### ENG 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ENG 401 - Senior Seminar in Writing Studies and Rhetoric

Senior writing seminar on the theories and practices of rhetorical genres.

**Prerequisites & Notes:** ENG 301 or ENG 302 or ENG 370 or ENG 371, or instructor approval; senior status.

**Credits:** 5

**Grade Mode:** Letter

### ENG 402 - Advanced Technical and Professional Writing

Writing-intensive class focusing on advanced problems of technical communications and their solutions. Strategies for identifying target readers and meeting their informational needs. Special emphasis on a technical writer's responsibilities and the ethical, social and technical issues surrounding electronic publishing.

**Prerequisites & Notes:** ENG 302

**Credits:** 5

**Grade Mode:** Letter

### ENG 406 - Topics in Critical and Cultural Theory

An advanced course that examines one or more critical or cultural theories.

**Prerequisites & Notes:** ENG 313 plus two from: ENG 304-347, ENG 364, ENG 370, ENG 371.

**Credits:** 5

**Grade Mode:** Letter

### ENG 408 - Cultural Studies

An advanced course that applies semiotic and/or textual approaches to a wide range of cultural issues. Repeatable once with different topics.

**Prerequisites & Notes:** ENG 313 plus two from: ENG 304-347, ENG 364, ENG 370, ENG 371.

**Credits:** 5

**Grade Mode:** Letter

### ENG 410 - Studies in Literary History

A wide variety of studies in literary history. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202 plus three from: ENG 304-347, ENG 364, ENG 370, ENG 371.

**Credits:** 5

**Grade Mode:** Letter

### ENG 415 - Special Topics in National Literatures

Studies in a variety of topics, canons or national literatures, such as Irish, Canadian, African, Native or Asian American. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202 plus three from: ENG 304-347, ENG 364, ENG 370, ENG 371, possible additional prerequisites relevant to topic.

**Credits:** 5

**Grade Mode:** Letter

### ENG 418 - Senior Seminar

An advanced seminar offering an in-depth exploration of specialized topics. Requires students to develop scholarly projects integrating course material with their own literary, historical, and theoretical interests. This course is not repeatable.

**Prerequisites & Notes:** Senior status; ENG 313 and one from: ENG 307, ENG 308, ENG 309, ENG 310 or ENG 311.

**Credits:** 5

**Grade Mode:** Letter

### ENG 423 - Studies in Major Authors

Studies in the texts of a writer or writers in English or in translation. Repeatable once as an elective with different authors.

**Prerequisites & Notes:** ENG 202 plus three from: ENG 304-347, ENG 364, ENG 370, ENG 371;

possible additional prerequisites relevant to topic

**Credits:** 5

**Grade Mode:** Letter

### ENG 427 - Queer Studies

Analysis, interpretation and discussion of the representation of sexuality in a range of texts with an emphasis on same-sex desire and works by Queer writers.

**Prerequisites & Notes:** One course from: ENG 227, ENG 313, ENG 351, ENG 353, ENG 354 or equivalent prerequisite coursework and instructor approval; and junior status.

**Credits:** 5

**Grade Mode:** Letter

### ENG 436 - The Structure of English

Introduction to English sentence structure. Topics include clause structure, modification, complementation, and syntactic principles such as movement, coordinating and pronominalization.

**Prerequisites & Notes:** ENG 370 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### ENG 438 - Cultural History of English

Examines the cultural, linguistic and literary influences on the development of Old, Middle, Early Modern and present-day English.

**Prerequisites & Notes:** ENG 370 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### ENG 439 - Topics in Language and Linguistics

Explores topics in language and linguistics of interest to students of English literature, creative writing and English education. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 370 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### ENG 442 - Studies in Literacy

Examines shifting definitions of literacy and literacy practices from social, cultural, historical, and technological perspectives.

**Prerequisites & Notes:** One course from ENG

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301, ENG 302, ENG 370, ENG 371 or instructor approval.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 443 - Teaching English Language Arts in the Secondary Schools I**

Survey of theory, practice, resources and methods of assessment for the teaching of English language arts.

**Prerequisites & Notes:** ENG 301 or ENG 302; ENG 347; ENG 350; ENG 370; and two from ENG 307, ENG 308, ENG 309, ENG 310, and ENG 311.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 444 - Teaching English Language Arts in the Secondary Schools II**

Continuation of the survey of theory, practice, resources and methods of assessment for the teaching of English language arts. This course may include a two-week, one period a day teaching practicum in a middle or high school.

**Prerequisites & Notes:** ENG 443

**Credits:** 5

**Grade Mode:** Letter

### **ENG 451 - Creative Writing Seminar - Fiction**

An advanced course in the writing of fiction. Repeatable with different instructors to a maximum of 10 cr.

**Prerequisites & Notes:** ENG 351

**Credits:** 5

**Grade Mode:** Letter

### **ENG 453 - Creative Writing Seminar - Poetry**

An advanced course providing disciplined expression in a variety of modes of writing poetry. Repeatable with different instructors to a maximum of 10 cr.

**Prerequisites & Notes:** ENG 353

**Credits:** 5

**Grade Mode:** Letter

### **ENG 454 - Creative Writing Seminar - Creative Nonfiction**

An advanced workshop course in the writing of nonfiction, building on skills learned in prior courses. Repeatable with different instructors to a maximum of 10 cr.

**Prerequisites & Notes:** ENG 354

**Credits:** 5

**Grade Mode:** Letter

### **ENG 455 - Living Writers**

An advanced course that combines study of the craft of writing in contemporary works of poetry, fiction, and/or nonfiction and literary expression. May include oral performances and lectures by visiting writers. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** One from: ENG 351, ENG 353, ENG 354.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 456 - Special Topics in Fiction Writing**

Intensive reading, writing and workshops in one or more specific modes of fiction, such as fantasy, flash fiction, or adapting fictional works to other media. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ENG 351

**Credits:** 5

**Grade Mode:** Letter

### **ENG 457 - Special Topics in Poetry Writing**

Intensive study of poetic texts in traditional and experimental forms. Opportunity to compose in a variety of poetic forms. Study of appropriate models. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ENG 353

**Credits:** 5

**Grade Mode:** Letter

### **ENG 458 - Special Topics in Creative Nonfiction Writing**

Intensive reading, writing and workshop in one or more specific modes of nonfiction, such as memoir, travel writing, autobiography and the personal essay. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ENG 354

**Credits:** 5

**Grade Mode:** Letter

### **ENG 459 - Editing and Publishing**

Focuses on a variety of professional editing and publishing procedures, opportunities and venues; politics of the literary marketplace; and careers available to writers.

**Prerequisites & Notes:** ENG 351, ENG 353 or ENG 354

**Credits:** 5

**Grade Mode:** Letter

### **ENG 460 - Special Topics In Creative Writing - Multi-Genre**

Intensive study of topics in creative writing that cross genre boundaries, or that critique those boundaries. Opportunities to compose experimental or hybrid works. Repeatable with different instructors to a maximum of 10 credits.

**Prerequisites & Notes:** ENG 351, ENG 353 or ENG 354

**Credits:** 5

**Grade Mode:** Letter

### **ENG 461 - Internship in English: Professional Identity**

Students will intern in a local organization and participate in weekly seminar meetings designed to contribute to their internship experience and their own professional identities.

**Prerequisites & Notes:** Senior status (135 credits) and instructor approval.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 462 - Topics in Professional and Technical Writing**

A rhetorical examination of various specific topics confronting technical and professional writers in a rapidly changing technological world. Topics change annually. Repeatable once.

**Prerequisites & Notes:** One course from ENG 301, ENG 302, ENG 371; or equivalent experience and instructor approval.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 464 - Topics in Film Studies**

Examines various specific topics in film studies and theory. Repeatable once with different topics.

**Prerequisites & Notes:** ENG 364 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 480 - Methods for Writing Assistants**

Study and practice in theories and strategies for guiding writers, one-to-one or in groups, face-to-face or online. Repeatable up to 5 credits including the original course. S/U grading.

**Prerequisites & Notes:** Selection as a Writing Center Assistant.

**Credits:** 1-3

**Grade Mode:** S/U

### **ENG 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ENG 501 - Literary Theories and Practices**

Examination of theories as they affect the practice of literary criticism and scholarship. Some attention to methods of research and documentation in English studies. Practicum in critical writing.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 502 - Seminar in the Writing of Fiction**

Individual projects in fiction along with examination of recently published works of fiction. May be repeated under advisement.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 504 - Seminar in the Writing of Poetry**

Individual projects in poetry along with examination of recently published volumes of poetry. May be repeated under advisement.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 505 - Seminar in the Writing of Nonfiction**

Individual projects in nonfiction along with examination of classic and modern models of nonfiction. May be repeated under advisement. NOTE: Graduate seminars in playwriting are available from the Department of Theatre Arts.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 506 - Seminar in Creative Writing: Multigenre**

Studies in the theory and practice of creative

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writing that can encompass more than one genre, create hybrid genres, or cross genre lines. May be repeated under advisement.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 509 - Internship in Writing, Editing and Production**

Under advisement, students may receive credit while working as interns in both on-campus and off-campus assignments appropriate to their career plans. Repeatable to 5 cr. S/U grading.

**Credits:** 1-5

**Grade Mode:** S/U

### **ENG 510 - Seminar: Topics in Rhetoric**

Rhetorical theory and composition. Topics from classical tradition and modern developments. Applications for teaching of language, literature and composition. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 513 - Seminar in Teaching College Composition**

Offered once a year in the fall.

**Prerequisites & Notes:** appointment as a teaching assistant or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **ENG 515 - Studies in Literary and Critical Theory**

Examines major theorists or movements in literary and critical theory. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 520 - Studies in Poetry**

Examines the characteristics, history, uses and criticism of poetry. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 525 - Studies in Fiction**

Examines the characteristics, history, uses and criticism of fiction. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 535 - Studies in Nonfiction**

Examines the characteristics, history, uses and criticism of nonfiction. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 540 - Studies in Global Literatures**

Examines global literatures, involving topics such as war, imperialism, post-colonialism, religion, feminism, migration, and the politics of language. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 550 - Studies in American Literatures**

Examines writers, periods and topics drawn from the full diversity of literature written in America. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 560 - Studies in British Literature**

Examines writers, periods and topics drawn from the full diversity of British literature. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 570 - Topics in Cultural Studies**

Examines the relationship between culture and texts and applies semiotic and/or textual approaches to a wide range of issues in cultural studies. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 575 - Studies in Women's Literature**

Examines writers, movements and topics in women's writing that may cut across genres and nationalities. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

### **ENG 580 - Studies in Film**

Examines the codes and conventions of cinema

with attention to critical theory. Repeatable with different topics.

**Credits:** 5

**Grade Mode:** Letter

#### **ENG 594 - Practicum in Teaching**

Supervised teaching for MA or MFA candidates, under the direction of graduate faculty. Repeatable to a maximum of 5 credits including original course.

**Prerequisites & Notes:** ENG 501

**Credits:** 2-5

**Grade Mode:** Letter

#### **ENG 598 - Seminar in the Teaching of English**

Various announced topics in the teaching of language, literature, composition, technical writing, and creative writing. Repeatable with different topics up to 10 credits including original course.

**Credits:** 5

**Grade Mode:** Letter

#### **ENG 690 - Thesis Writing**

Repeatable to a maximum of 10 credits, including original course.

**Credits:** 2-10

**Grade Mode:** Letter

# Health and Human Development

## Introduction

The Department of Health and Human Development offers degree programs for students interested in professions related to kinesiology, P-12 physical education and health, community health education, and recreation.

## Faculty

The department currently consists of 15 faculty members whose backgrounds span the entire range of kinesiology and physical education, health education, and recreation. Students are provided opportunities to interact individually with faculty who are involved in community projects and research in public schools, kinesiology, health, and recreation.

## Facilities

For students in the kinesiology and physical education programs, exercise physiology and biomechanics laboratories afford students an opportunity for in-depth study in the exercise sciences and health assessment as applied to health and sports science. Considerable practical experience using laboratory and computerized equipment enables students to develop skills in cardiorespiratory, anthropometric, strength and movement analysis, and health appraisals.

## Major Programs

### Kinesiology and Physical Education

The major programs are varied and include undergraduate student preparation for careers as professional physical and health educators, and undergraduate and graduate kinesiology options. Kinesiology degree completion prepares students for clinical or research graduate school programs or for careers as health fitness instructors in agencies, schools, industries, hospitals and health care facilities. Students are expected to perform community service in all programs. The specializations offered include the following:

- Teacher Education P-12 Physical Education and Health
- Kinesiology
  - Movement Studies
  - Health and Fitness Specialist
  - Pre-Healthcare Professions

- Pre-Physical Therapy
- Sport Psychology

### Kinesiology major application and declaration policy

1. WWU students with at least 75 credits completed and a GPA of at least 2.50 may apply to enter one of the five specializations in the Kinesiology major:

- Applications from one student to multiple Kinesiology specializations are not permitted.
- At the time of application the 75 or more credits must be recorded in the student's WWU academic history (WWU transcript) and/or in the student's WWU transfer equivalency report.
- If the student has attended more than one institution then the student's GPA for purposes of application to the Kinesiology major is calculated as a weighted average of the GPAs obtained at each of the schools attended. (Advanced placement classes are not included in the calculation; running start classes recorded on a community college transcript are included.)
- Admission to each specialization will be determined on a space available basis after ranking candidates by GPA, from high to low. GPA admission averages for each specialization will be calculated each year based on the most current data and included in advising material that students can obtain from the Health and Human Development Department or the Kinesiology program website at [www.edu/hhd/kinesiology](http://www.edu/hhd/kinesiology).
- The application to the Kinesiology major is submitted via a link on the Kinesiology program website at [www.edu/hhd/kinesiology](http://www.edu/hhd/kinesiology).
- Deadlines for the application each year are as follows:
  - Second Friday of classes in fall quarter, for the students entering the major in the subsequent winter quarter.
  - Second Friday of classes in winter quarter, for the students entering the major in the subsequent spring quarter.
  - Second Friday of classes in spring quarter, for the students entering the major in the subsequent fall quarter.
- Transfer students attending a summer transitions program will not be able to apply to the major during the summer transitions program. Transfer students will



apply in the fall, winter, or spring quarters according to the deadlines for application.

2. Student applicants are notified of the outcome of their application the soonest possible after the application deadline, well in advance of the registration phase I for the subsequent quarter.
3. Students admitted to the major are assigned to a program academic advisor and are required to meet with the advisor to make a plan of study. Conversion to major status will not be completed without a meeting with a program academic advisor.
4. If a student is denied entry into a Kinesiology major specialization, the student may apply again the next quarter to the same specialization. For example, if a student is not selected in the spring for fall quarter admission to the Pre Health Care Specialization, the student can apply again in the fall to the same Kinesiology Pre-Health Care Specialization.
5. If a student is denied entry into the Kinesiology major, the student may apply again to a different specialization after a delay of one quarter. For example, if a student is not selected in the spring for fall quarter admission to the Pre-Health Care Specialization, the student can apply in the winter to a different Kinesiology specialization. The one-quarter delay is designed to dissuade students from applying to specializations not focused in their area of interest.
6. Once admitted to a specialization, a student wishing to change to a different specialization must apply for admission to the new specialization following the deadlines for application, and can do so while continuing in the present specialization.

### **Kinesiology and Physical Education Mid-Program Checkpoint**

Students seeking to complete a BAE degree in teacher education P-12 physical education and health or a BS in kinesiology within a four-year time span should have completed the following courses by the start of their junior year:

- All General University Requirements (GURs)
- BIOL 101 or BIOL 205; and BIOL 348 preferred

Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

**NOTE:** The teacher education P-12 option requires a 4½-year commitment, which includes a one-semester student teaching internship. Students

must meet the minimum entry requirements of the Woodring College of Education before being considered for admission to the P-12 physical education and health program. Students should first declare a pre-major in this specialization in order to register for required pre-major classes and then apply for entry into the P-12 physical education and health program during the fall quarter of their junior year while they are enrolled in pre-major courses. Students who do not meet the minimum qualifications of the Woodring College of Education cannot apply to be considered for entry into the P-12 physical education and health program.

**NOTE:** The pre-physical therapy specialization of the kinesiology option requires careful planning if students are to complete the degree in a four-year period. It is suggested that students who are interested in this specialization consult with Dr. Gordon Chalmers, Dr. Dave Suprak, Dr. Michelle Mielke or Dr. Jun San Juan (HHD faculty) during their freshman or sophomore year in order to establish a reasonable plan of study for the completion of this degree.

### **NOTE: Development Skills/Fitness Leadership - Physical Education Activity Courses**

Activity courses, with the exception of varsity sports and those so noted, may not be repeated for credit. Courses offered depend on instructor availability. All 100-level physical activity courses are S/U graded.

Course fees are variable.

### **Health Education**

**Health education** is a discipline with roots in the behavioral sciences of psychology, sociology, social psychology, and anthropology; the biological sciences; education; and public health. Health educators use multidisciplinary theories and behavioral and organizational change principles to plan, implement, and evaluate interventions that enable individuals, groups, and communities to achieve personal, social, and environmental health. To this end, health educators apply many different methods and strategies to achieve goals: group process, teaching, training, mass media, communication, community organization, organization development, strategic planning, skills training, legislation, policy development, and advocacy. Health educators practice in schools, colleges, work places, medical care settings, public health settings, and community-based agencies and organizations. (Adapted from the Joint Committee on Health Education and Promotion Terminology.)

## HEALTH AND HUMAN DEVELOPMENT

**Health educators** are defined by the U.S. Federal Register as individuals who promote, maintain, and improve individual and community health by assisting individuals and communities to adopt healthy behaviors. They collect and analyze data to identify community needs prior to planning, implementing, monitoring and evaluating programs designed to encourage healthy lifestyles, policies, and environments. They may also serve as a resource to assist individuals, other professionals, or the community, and may administer fiscal resources for health education programs.

**Certified Health Education Specialists (CHES)** are individuals who have met required health education training qualifications and successfully passed a competency-based examination administered by the National Commission for Health Education Credentialing, Inc. The WWU Community Health major prepares students to meet the eligibility requirements for becoming a Certified Health Education Specialist.

**NOTE:** Students interested in teaching health education in P-12 schools are referred to the Physical Education and Health major to meet state requirements for teaching Health and Fitness in the state of Washington.

### Health Education Mid-Program Checkpoint

Students seeking to complete a BS degree in Community Health within a four-year time span should make normal progress toward the GUR requirements and should apply for pre-major admission to the program during their freshman or sophomore year. Admission is competitive and the number of majors accepted is limited. It is suggested that students interested in Community Health consult the program coordinator (Dr. Ying Li) to establish a reasonable plan of study and be assigned an advisor. The following courses should be completed during the sophomore and junior years and prior to the start of the senior year.

-	Fall	Winter	Spring	Summer
<b>Fresh</b>	-	-	-	-
<b>Soph</b>	-	-	<b>I</b>	-
<b>Junior</b>	-	<b>II</b>	<b>III</b>	<b>or III</b>
<b>Senior</b>	<b>IV</b>	-	-	-

The phase system allows maximum flexibility for scheduling students' educational experience to include workshops, field experiences, conferences and seminars both on and off campus. By making use of other departments at Western, statewide recreation resources, and recreation professionals, students are provided with exposure to a wide

Major omissions from this list make it difficult or impossible to complete the degree within the four-year time span.

- HLED 150, HLED 151, HLED 152, HLED 345, HLED 350
- BIOL 348, BIOL 349
- CHEM 121; CHEM 251 or CHEM 351

### Recreation

The curriculum in Recreation offers generalist preparation for a wide range of career entry-level positions including:

- Community Recreation
- Therapeutic Recreation
- Outdoor Recreation
- Ecotourism

Students seeking to complete a BA degree in Recreation within a four-year time span should have made normal progress toward the GUR requirements and should apply for admission to the program during fall quarter of their sophomore year. Junior and senior level students are also welcome to apply. Interested students are encouraged to contact the Recreation Program faculty advisors as early as possible to insure timely academic progress.

In support of healthy individuals, families, and communities, career opportunities in recreation and leisure services are numerous and diverse. The Recreation curriculum prepares students to plan, develop, and administer programs and resources in a variety of settings. The program is designed as four sequential 15-16 credit hour blocks of classes (phases) with students moving through the program as a cohort group. Students enter Phase 1 of the program during spring quarter, typically during sophomore year. The following schedule shows the sequential order of the four program phases:

variety of experiential and service-learning opportunities.

The Recreation Program emphasizes preparation in the broad areas of outdoor recreation, community recreation, therapeutic recreation, and ecotourism. Community and outdoor recreation graduates find employment in federal and state

recreation and park agencies, county and community recreation departments, and non-profit agencies serving people from all walks of life. Therapeutic recreation graduates find employment in hospitals; senior centers; nursing homes; mental health agencies; community recreation departments; and federal, state, and private agencies serving persons with disabilities or other adapted recreation needs. Graduates prepared in ecotourism plan and lead trips worldwide or work in destination planning.

The Recreation Program is nationally accredited by the Council on Accreditation of Parks, Recreation, and Tourism. Students should inquire directly to the Recreation Program office in Bond Hall 418 for current information on admission procedures.

### Faculty

**KEITH C. RUSSELL** (2008) Chair and Professor. BS, Lewis and Clark College; MS, PhD, University of Idaho.

**JESSYCA ARTHUR-CAMESELLE** (2015) Assistant Professor. BS, College of William and Mary; MEd, PhD, Boston University.

**LORRAINE BRILLA** (1985) Professor. BS, Pennsylvania State University; MS, Pennsylvania State University; PhD, University of Oregon.

**RANDALL T. BURTZ** (2003) Associate Professor. BA, MA, Washington State University; PhD, Colorado State University.

**HARSH HARISH BUDDHADEV** (2015) Assistant Professor. BPhy, Gujarat University; MS, University of North Texas.

**GORDON CHALMERS** (1996) Professor. BS, Simon Fraser University; MS, PhD, University of California-Los Angeles.

**MELISSA D'ELOIA** (2015) Assistant Professor. BS, Ohio University; MS, PhD, University of Utah.

**JASMINE GOODNOW** (2013) Assistant Professor. BS, Brigham Young University; MS, University of Utah; PhD, University of Utah.

**KARI JO HILGENDORF** (2016) Assistant Professor. BS, Washington State University; PhD, Washington State University.

**LINDA A. KEELER** (2012) Assistant Professor. BA, Colgate University; MA, University of Maryland; EdD, West Virginia University.

**YING LI** (2006) Associate Professor. BMed, Zhejiang College; MS, Zhejiang University; MEd, University of Cincinnati; PhD, University of Florida.

**LEAANN MARTIN** (1991) Dean and Professor. BS, Southwest Missouri State University; MS, University of Arizona; PhD, University of Texas.

**MICHELLE MIELKE** (2012) Assistant Professor. BS, Barry University; MS, Florida Atlantic University; PhD, University of Nebraska.

**BERNARDO SAN JUAN JR.** (2013) Assistant Professor. BS, University of Philippines; MA, San Diego State University; PhD, University of Oregon.

**DAVID N. SUPRAK** (2008) Associate Professor. BS, Eastern Washington University; MS, Western Washington University; PhD, University of Oregon.

**SENNA TOWNER** (2014) Assistant Professor. BS, Southern Oregon University; MS, University of Montana; PhD, Oregon State University.

### Affiliated Teaching Faculty

**WREN CUNNINGHAM** (2012) Instructor, BS, MS, Western Washington University; DPT, Duke University.

**LINDSAY POYNTER** (2010) Instructor. BA, Western Washington University; MA, Naropa University.

## Bachelor of Arts

### Recreation, BA

Department of Health and Human Development, College of Humanities and Social Sciences

**67 credits**

#### Introduction

The purpose of recreation and leisure is to contribute to the health and well-being of individuals and to enhance the quality of community life. As such, the study of Recreation is multidisciplinary, requiring understanding of the social, behavioral, physical, and environmental sciences as they pertain to helping people grow and develop in their leisure while conserving our vital natural resources. Knowledge of the arts and humanities is important as well, because leisure is one of the most fertile opportunities for self-expression and the development of community.

In support of healthy individuals, families, and communities, career opportunities in recreation and leisure services are numerous and diverse. The Recreation curriculum prepares students to design, implement, manage, lead, and evaluate recreation programs and services. The program is designed as four sequential 15-16 credit hour blocks of classes (phases) with students moving through the program as a cohort group.

## HEALTH AND HUMAN DEVELOPMENT

Students enter Phase 1 of the program during spring quarter, typically during their sophomore or junior year. The following schedule shows the sequential order of the four program phases:

-	Fall	Winter	Spring	Summer
<b>Freshman</b>	-	-	-	-
<b>Sophomore</b>	-	-	<b>I</b>	-
<b>Junior</b>	-	<b>II</b>	<b>III</b>	<b>or III</b>
<b>Senior</b>	<b>IV</b>	-	-	-

The phase system allows maximum flexibility for scheduling students' educational experience to include workshops, field experiences, conferences and seminars both on and off campus. By making use of other departments at Western, statewide recreation resources, and recreation professionals, students are provided with exposure to a wide variety of experiential and service-learning opportunities.

### Why Consider a Recreation Major?

Recreation and leisure contribute to the health and well-being of individuals and their communities. Graduates of the Recreation Program are employed throughout the region, nation and world in a variety of settings, including public recreation departments, outdoor recreation programs, hospitals, and tourism agencies. Specific jobs performed by graduates include working as recreation therapists, organizing and leading outdoor adventure trips, managing youth-serving agencies, such as Boys and Girls Clubs, supervising public sports programs, coordinating community cultural arts, operating eco-tourism trips, and serving as park rangers with state and federal agencies. Some graduates have found their degrees useful for work in fields such as social work, the ministry and law enforcement.

The Recreation Program emphasizes preparation in the broad areas of outdoor recreation, community recreation, therapeutic recreation, and ecotourism. Community and outdoor recreation graduates find employment in federal and state recreation and park agencies, county and community recreation departments, non-profit agencies, and commercial recreation settings. Therapeutic recreation graduates find employment in hospitals; senior centers; nursing homes; mental health agencies; community recreation departments; and federal, state, and private agencies serving persons with disabilities or other adapted recreation needs. Graduates prepared in ecotourism plan and lead trips worldwide or work in destination planning.

The Recreation Program is nationally accredited by the Council on Accreditation of Parks, Recreation, and Tourism. Students should inquire directly to the Recreation Program office in Bond Hall 418 for current information on admission procedures.

#### Contact Information

##### Recreation Program Coordinator Community Recreation/ Outdoor Recreation

Randall Burtz, Associate Professor  
Bond Hall 418B  
360-650-7572  
Randall.Burtz@wwu.edu

**Outdoor Recreation**  
Keith Russell, Professor  
Bond Hall 418E  
360-650-3529  
Keith.Russell@wwu.edu

##### Therapeutic Recreation

Melissa D'Eloia  
Assistant Professor  
Bond Hall 418A  
360-650-3782  
Melissa.Deloia@wwu.edu

##### Recreation Program Secretary

Katey Roemmele  
Bond Hall 418  
360-650-3782  
Katey.Roemmele@wwu.edu

##### Ecotourism

Jasmine Goodnow,  
Assistant Professor  
Bond Hall 418C  
360-650-2393  
Jasmine.Goodnow@wwu.edu

#### Sample Careers

Recreation Therapist | Outdoor Adventure Leader | Youth Programs Coordinator | Eco-tourism Operator | Park Ranger

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

First priority is given to students who have submitted applications by the first Thursday in November during fall quarter. After this date, consideration is given to applicants on a case-by-case basis. However, the program is popular and the number of majors admitted is limited, so students are encouraged to apply by the deadline. Students interested in the program should contact the Recreation Program in Bond Hall 418 if they have any questions about available space and the application process. Students must have completed 45 quarter unit credits, including approved transfer credits, before starting Phase I. The deadline also applies to transfer students. Transfer students are urged to contact the Recreation Program for guidance and further information. A minor in Recreation is not offered presently.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

RECR 380 is required for the therapeutic recreation option and is offered fall quarter each year.

- Prerequisite:
  - RECR 201 - Foundations of Recreation and Leisure
- Phase I:
  - RECR 271 - Introduction to Community Recreation and Leisure Services
  - RECR 272 - Introduction to Outdoor Recreation
  - RECR 274 - Introduction to Therapeutic Recreation
  - RECR 275 - Professional Practicum and Seminar
  - RECR 276 - Introduction to Program Leadership
  - RECR 279 - Introduction to Tourism
- Phase II:
  - RECR 372 - Management of Recreation and Leisure Services
  - RECR 373 - Recreation Programming
  - RECR 378 - Human Relations: Concepts and Skills
  - One course from:
    - RECR 370 - Outdoor Program Development
    - RECR 376 - Therapeutic Recreation Program Design
    - RECR 379 - Foundations of Ecotourism
    - RECR 385 - Leisure and Aging
- Phase III:
  - RECR 471 - Internship I  
and  
RECR 472 - Internship II  
OR  
RECR 473 - Internship III
- Phase IV:
  - RECR 444 - Recreation Budgeting and Finance
  - RECR 450 - Recreation Program Evaluation
  - RECR 480 - Leisure and Society
  - One course from:
    - RECR 421 - Therapeutic Recreation Trends and Issues
    - RECR 470 - Adventure-Based Programming
    - RECR 475 - Community Development and Leisure Services
    - RECR 479 - Ecotourism: Principles and Practices

**Support Area**

Recreation majors must develop a 25-credit support area. Support areas may range from traditional minors (e.g., sociology, environmental studies, business, and other fields) to interdisciplinary studies incorporating courses from a broader spectrum of University course offerings. The interdisciplinary support area is designed under the guidance of the student's faculty advisor and must have the advisor's final approval.

## Bachelor of Arts in Education

### Physical Education and Health P-12, BAE

Department of Health and Human Development, College of Humanities and Social Sciences

**121 credits\***

#### Introduction

The study of Physical Education and Health involves courses in Kinesiology, Behavioral and Cultural Foundations, Health Education, Physical Education pedagogy, and educational foundations. These courses prepare individuals to effectively teach pre-kindergarten through 12th grade students motor skills and movement patterns; develop their understanding of movement concepts, skills, and strategies; and facilitate students' knowledge of health related concepts related to lifelong fitness and health.

The Physical Education and Health P-12 major must be accompanied by the Secondary Education Professional Program offered through Woodring College of Education.

\*84 credits in Physical Education and Health content area; 37 credits from the Secondary Education program including the student teaching internship.

This major leads to an endorsement in health and fitness for grades P-12. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Teaching Certification in P-12 Physical Education and Health Major?

This major provides concentrated study of Physical and Health Education. Completion of requirements leads to Teacher Certification in P-12 Physical Education and Health (Health and Fitness). The program is unique in that it consists of four sequential five-credit blocks in Physical Education pedagogy with practicum experiences at the elementary, middle, high school, and college levels in diverse teaching environments, allowing students concentrated time to develop teaching strategies while working with children and adolescents in the school based setting. Ongoing analysis of teaching effectiveness is incorporated throughout the program. The health component requires a series of 17 credits of coursework and practica in a health education setting which is integrated into PE 441p. The number of students admitted into the program is limited.

#### Contact Information

##### PE/Health - Education Advisors

Sherena Geariety  
Bond Hall 103  
360-650-3505  
Sherena.Geariety@wwu.edu

##### Secondary Education

##### Website

<https://wce.wwu.edu/sec/secondary-education>

##### For General Information

Sherena Geariety  
Bond Hall 103  
360-650-3505  
Sherena.Geariety@wwu.edu

##### Secondary Education Program

##### Manager

Janna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wwu.edu

##### Secondary Education Program Coordinator

Christina Carlson  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

#### Sample Careers

P-12 Physical Education Teacher | Health Education Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students desiring entry into the program should follow the process outlined below:

- Meet the minimum qualifications of the Woodring College of Education admissions process. This can be initiated and completed as early as the winter or spring quarters before applying to the physical education and health program the following fall. It is imperative that students begin this process as soon as they are interested in the program. Students who do not meet the minimum qualifications of Woodring College of Education cannot apply for entry into the P-12 physical education and health program.
- Meet with a department advisor to declare the pre-major and outline a plan of study.
- Enroll in KIN 308, PE 340 and BIOL 348 fall quarter.

**NOTE:** BIOL 348 may be taken prior to fall quarter.

- Submit a completed application packet for the P-12 physical education and health program early in October. See advisor for exact application date. Students are encouraged to submit applications as soon as they meet the minimum qualifications of Woodring College of Education. This can be done as early as spring quarter before applying to the P-12 physical education and health program the following fall (applications are available in Bond Hall 103, the main office of the HHD department).
- Successful completion (grade C or better) of BIOL 348, KIN 308, PE 340
- Applications for the P-12 physical education and health program will be reviewed by faculty, and a limited number of candidates will be accepted into the program and notified prior to winter quarter. Criteria for acceptance are established by physical education faculty, and applications will be evaluated accordingly. Application procedures include an oral presentation and interview.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement and the academic major.

### Program of Study

- BIOL 348 - Human Anatomy and Physiology
- HLED 150 - Consumer and Environmental Health
- HLED 151 - Society and Drugs
- HLED 152 - Society and Sex
- HLED 345 - Health Promotion/Disease Prevention
- HLED 455 - Health Education Grades K-8
- KIN 308 - Human Growth and Motor Development
- KIN 312 - Functional Anatomy
- KIN 320 - Psychology of Sport
- KIN 321 - Sociology of Sport
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 416 - Strength and Conditioning Program Design
- KIN 422 - Professional Issues in Health and Exercise Settings
- PE 340 - Block I: Elementary Physical Education Methods
- PE 341 - Block II: Elementary Physical Education Methods
- PE 341P - Elementary Physical Education Practicum
- PE 440 - Block III: Middle School Physical Education Methods
- PE 440P - Middle School Physical Education Practicum
- PE 441 - Block IV: High School Physical Education Methods
- PE 441P - High School Health and Physical Education Practicum
- PE 442P - Practicum in Physical Education
- PE 443 - Adapted Physical Education Methods & Practicum
- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 495 - Internship - Secondary

# HEALTH AND HUMAN DEVELOPMENT

- One course from:
  - KIN 414 - Physical Activity and Nutrition
  - HLED 350 – Nutrition

## Bachelor of Science

### Community Health, BS

Department of Health and Human Development, College of Humanities and Social Sciences

**101-102 credits**

#### Introduction

The Community Health degree consists of two to three years of course work in Health Education and supporting areas. This includes required course work in both content and process-oriented Health Education courses, Social Sciences (Anthropology, Psychology, and Sociology), Biological and Physical Sciences (Anatomy and Physiology, Exercise Physiology, and Chemistry), Nutrition, and electives that complement a student's interests and professional needs.

#### Why Consider a Community Health Major?

Community Health Educators assess individual and community needs for health education; plan, implement and administer health education strategies, interventions and programs; conduct evaluation and research; serve as a health education resource; and communicate and advocate for health and health education. Effective Health Education is ecological in its approach. When planning the focus of interventions, trained Health Educators consider all factors that contribute to health and disease: individual behavior; group dynamics; environmental conditions; economics; politics, laws and policies; culture, ethnicity, and gender; and the availability, accessibility, and quality of health services.

Students who are accepted into the Community Health major explore the biological, social, environmental, and individual determinants of health. The curriculum is based on the skills and competencies to become a Certified Health Education Specialist (CHES) through the National Commission on Health Education Credentialing, Inc. The program is rigorous and faculty members emphasize diverse classroom projects and community outreach. At the end of the program, a full-time internship (40 hours per week for 10 weeks) in a health education setting is required.

The Community Health major is appropriate for students who want to work in community, public, and global health; health communication; governmental and non-profit agencies and organizations; medical care settings; worksite wellness programs; and college and university student service health education programs. It can also serve as a preparatory program for graduate or post-baccalaureate study in Health Education, Public Health, and related areas.

#### Contact Information

##### Program Coordinator

Ying Li

Engineering Technology 273

360-650-3513

Ying.Li@wwu.edu

#### Sample Careers

Community Health Educator | Tobacco Control Specialist | Sexuality Education Coordinator | HIV/AIDS Educator | Hospital-based Wellness Program Director | Public Health Director | Substance Abuse Educator | College Health Educator | Injury Prevention Specialist | Curriculum Development Specialist | Health Consultant | Health Information Specialist | Nutrition and Physical Activity Coordinator

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)



**How to Declare (Admission and Declaration Process):**

Admission to the Community Health major is selective and the number of majors is limited. Interested students meet with program faculty to pre-major in Community Health. This allows students access to entry-level courses. Pre-majors are strongly advised to complete biology prerequisites for BIOL 348 and 349 and chemistry prerequisites for CHEM 251 or 351 by the end of the sophomore year. A 2.5 GPA is required to pre-major.

Application to the major is due by October 15 of the year prior to the senior 400-level courses. The application includes an essay; current résumé; two letters of reference; and transcripts. Program faculty will provide information on application specifics. Fulfillment of the requirement does not automatically secure admission to the major. Pre-majors are notified regarding acceptance before winter quarter registration. Majors must maintain the 2.5 GPA in all major courses to enroll in the required full-time internship at the end of the program of study.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

Health Education Core: 67 credits

- HLED 150 - Consumer and Environmental Health
- HLED 151 - Society and Drugs
- HLED 152 - Society and Sex
- HLED 345 - Health Promotion/Disease Prevention
- HLED 350 - Nutrition
- HLED 407 - Principles and Foundations of Health Education
- HLED 410 - Health Communication and Social Marketing
- HLED 420 - Epidemiology and Biostatistics
- HLED 432 - Organization and Administration of Community Health Programs
- HLED 447 - Community Health
- HLED 450 - Methods and Materials in Health Education
- HLED 460 - Program Planning and Implementation of Health Programs
- HLED 465 - Program Evaluation and Research Design
- One of the following options:
  - HLED 471 - Internship I and
  - HLED 472 - Internship II
  - Or
  - HLED 473 - Internship III

Supporting Required Courses: 24-25 credits

- BIOL 348 - Human Anatomy and Physiology
- BIOL 349 - Human Physiology
- CHEM 121 - General Chemistry I
- KIN 413 - Physiology of Exercise
- One course from:
  - CHEM 251 - Elementary Organic Chemistry
  - CHEM 351 - Organic Chemistry

Electives Under Advisement: 10 credits

Students interested in becoming peer health educators through the Peer Health Educator Program may include HLED 250 as one of their electives. Enrollment in HLED 250 is contingent upon acceptance into the Peer Health Educator Program by the staff of Prevention & Wellness Services.

- ANTH 353 - Sex and Gender in Culture
- ANTH 424 - Medical Anthropology
- COMM 224 - Small Group Processes
- ENG 302 - Introduction to Technical and Professional Writing

## HEALTH AND HUMAN DEVELOPMENT

HLED 210 - Introduction to Public Health  
HLED 250 - Health of the College Student  
KIN 415 - Physical Fitness Assessment and Exercise Prescription  
PSY 220 - Behavioral Neuroscience  
PSY 230 - Lifespan Developmental Psychology  
PSY 240 - Social Psychology  
PSY 250 - Introduction to Abnormal Psychology  
PSY 274 - Psychology of Child Rearing  
SOC 260 - The Family in Society  
SOC 268 - Gender and Society  
SOC 269 - Race and Ethnic Relations  
SOC 332 - The Sociology of Human Relationships  
SOC 333 - Aging and Societies  
SOC 338 - Sociology of Sexual Behavior  
SOC 340 - Sociology of Organizations  
SOC 342 - Sociology of Religion  
SOC 345 - Contemporary American Families  
SOC 348 - Global Health  
SOC 369 - Sociology of Race and Ethnicity  
SOC 380 - Sociology of Youth

Substitutions may be made with approval of the student's advisor.

Exit Requirement: Standard First Aid/CPR certification

### **Kinesiology — Health and Fitness Specialist Specialization, BS**

Department of Health and Human Development, College of Humanities and Social Sciences

**86-95 credits**

#### **Introduction**

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

#### **Why Consider a Health and Fitness Specialist Specialization in Kinesiology Major?**

Health and fitness specialist professionals work in the health and fitness industry. The program prepares professionals who are skilled in evaluating health behaviors and risk factors, conducting fitness assessments, writing appropriate exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors for optimal health. Health and fitness specialists conduct these activities in the university, clinical, corporate, and commercial or community settings where their clients participate in health promotion and fitness-related activities. This specialization is also appropriate preparation for graduate study in exercise physiology and cardiac or pulmonary rehabilitation.

The Kinesiology major is in very high demand at Western. See the Kinesiology pre-major and major declaration policy to learn how and when you can declare the pre-major. Prior to declaring the pre-major, and after declaring the pre-major but before being advanced to major status, WWU students are strongly urged to obtain and utilize advising information from the Kinesiology program web page, or the HHD department office (Bond Hall 103), to know what classes are recommended to be taken to prepare for the major. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.**

**Contact Information****General Kinesiology Information**

Sherena Geariety  
 Bond Hall 103  
 360-650-3505  
 Sherena.Geariety@wwu.edu

**Health and Fitness Specialist Advisor**

Lorrie Brilla  
 360-650-3056  
 Lorrie.Brilla@wwu.edu

**Program Coordinator**

Gordon Chalmers  
 Engineering Technology 275  
 360-650-3113  
 Gordon.Chalmers@wwu.edu

**Sample Careers**

Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Application and Declaration Process):**

1. WWU students with at least 75 credits completed and a GPA of at least 2.50 may apply to enter one of the five specializations in the Kinesiology major:

- Applications from one student to multiple Kinesiology specializations are not permitted.
- At the time of application the 75 or more credits must be recorded in the student's WWU academic history (WWU transcript) and/or in the student's WWU transfer equivalency report.
- If the student has attended more than one institution then the student's GPA for purposes of application to the Kinesiology major is calculated as a weighted average of the GPAs obtained at each of the schools attended. (Advanced placement classes are not included in the calculation; running start classes recorded on a community college transcript are included.)
- Admission to each specialization will be determined on a space available basis after ranking candidates by GPA, from high to low. GPA admission averages for each specialization will be calculated each year based on the most current data and included in advising material that students can obtain from the Health and Human Development Department or the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- The application to the Kinesiology major is submitted via a link on the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- Deadlines for the application each year are as follows:
  - Second Friday of classes in fall quarter, for the students entering the major in the subsequent winter quarter.
  - Second Friday of classes in winter quarter, for the students entering the major in the subsequent spring quarter.
  - Second Friday of classes in spring quarter, for the students entering the major in the subsequent fall quarter.
- Transfer students attending a summer transitions program will not be able to apply to the major during the summer transitions program. Transfer students will apply in the fall, winter, or spring quarters according to the deadlines for application.

2. Student applicants are notified of the outcome of their application the soonest possible after the application deadline, well in advance of the registration phase I for the subsequent quarter.

3. Students admitted to the major are assigned to a program academic advisor and are required to meet with the advisor to make a plan of study. Conversion to major status will not be completed without a meeting with a program academic advisor.

4. If a student is denied entry into a Kinesiology major specialization, the student may apply again the next quarter to the same specialization. For example, if a student is not selected in the spring for fall quarter admission to the Pre Health Care Specialization, the student can apply again in the fall to the same Kinesiology Pre-Health Care Specialization.

5. If a student is denied entry into the Kinesiology major, the student may apply again to a different specialization after a delay of one quarter. For example, if a student is not selected in the spring for fall quarter admission to the Pre-Health Care Specialization, the student can apply in the winter to a different

## HEALTH AND HUMAN DEVELOPMENT

Kinesiology specialization. The one-quarter delay is designed to dissuade students from applying to specializations not focused in their area of interest.

6. Once admitted to a specialization, a student wishing to change to a different specialization must apply for admission to the new specialization following the deadlines for application, and can do so while continuing in the present specialization.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 304 - Prevention and Care of Athletic Injuries
- KIN 306 - Measurement and Evaluation in Kinesiology
- KIN 308 - Human Growth and Motor Development
- KIN 311 - Biomechanics
- KIN 312 - Functional Anatomy
- KIN 320 - Psychology of Sport
- KIN 409 - Aging and Functional Assessments
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 414 - Physical Activity and Nutrition
- KIN 415 - Physical Fitness Assessment and Exercise Prescription
- KIN 416 - Strength and Conditioning Program Design
- KIN 422 - Professional Issues in Health and Exercise Settings
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)  
and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)  
and KIN 472 - Internship II (12 credits)
- Select 4 credits from:
  - PE 101 - Beginning Conditioning
  - PE 104 - Beginning Yoga
  - PE 108 - Beginning Weight Training
  - PE 125 - Zumba
  - PE 134 - Beginning Pickleball
  - PE 144 - Beginning Soccer
  - PE 145 - Beginning Volleyball
  - PE 149 - Beginning Ultimate Disc
  - PE 168 - Beginning Martial Arts
- Select a minimum of 21 credits from below:
  - BIOL 349 - Human Physiology
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 251 - Elementary Organic Chemistry
  - CHEM 375 - Elements of Biochemistry
  - COMM 244 - Advocacy Through Media
  - COMM 318 - Professional Communication
  - COMM 325 - Intercultural Communication

COMM 327 - Interpersonal Communication  
 COMM 416 - Topics in Communication  
 CSCI 101 - Computers and Applications  
 CSCI 140 - Programming Fundamentals in C++  
 ENG 302 - Introduction to Technical and Professional Writing  
 HLED 345 - Health Promotion/Disease Prevention  
 HLED 350 - Nutrition  
 KIN 315 - Fitness Instruction and Leadership  
 KIN 321 - Sociology of Sport  
 KIN 421 - Psychology of Exercise  
 KIN 435 - Worksite Health Promotion

Up to one course from (none required):

KIN 307 - Statistics in Exercise & Sport Science  
 OR

MATH 240 - Introduction to Statistics  
 PHYS 114 - Principles of Physics I  
 PHYS 115 - Principles of Physics II  
 PHYS 116 - Principles of Physics III  
 PSY 220 - Behavioral Neuroscience  
 PSY 230 - Lifespan Developmental Psychology  
 PSY 250 - Introduction to Abnormal Psychology

## Kinesiology — Movement Studies Specialization, BS

Department of Health and Human Development, College of Humanities and Social Sciences

**85-94 credits**

### Introduction

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

### Why Consider a Movement Studies Specialization in Kinesiology Major?

The movement studies specialization is recommended for students who wish to pursue a variety of career opportunities related to kinesiology (see sample career list). Students should seek advising to determine the appropriate set of courses leading to a specialized emphasis.

The Kinesiology major is in very high demand at Western. See the Kinesiology pre-major and major declaration policy to learn how and when you can declare the pre-major. Prior to declaring the pre-major, and after declaring the pre-major but before being advanced to major status, WWU students are strongly urged to obtain and utilize advising information from the Kinesiology program web page, or the HHD department office (Bond Hall 103), to know what classes are recommended to be taken to prepare for the major. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.**

#### Contact Information

##### General Kinesiology Information

Sherena Geariety  
 Bond Hall 103  
 360-650-3505  
 Sherena.Geariety@wwu.edu

##### Movement Studies Specialization Advisors

Gordon Chalmers  
 Engineering Technology 275  
 360-650-3113  
 Gordon.Chalmers@wwu.edu

##### Program Coordinator

Gordon Chalmers  
 Engineering Technology 275  
 360-650-3113  
 Gordon.Chalmers@wwu.edu

## HEALTH AND HUMAN DEVELOPMENT

David Suprak  
Environmental Studies 02  
360-650-2586  
David.Suprak@wwu.edu  
Michelle Mielke  
360-650-4277  
Michelle.Mielke@wwu.edu  
Jun San Juan  
Environmental Studies 02  
260-650-2336  
Jun.SanJuan@wwu.edu

### Sample Careers

Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Application and Declaration Process):

1. WWU students with at least 75 credits completed and a GPA of at least 2.50 may apply to enter one of the five specializations in the Kinesiology major:

- Applications from one student to multiple Kinesiology specializations are not permitted.
- At the time of application the 75 or more credits must be recorded in the student's WWU academic history (WWU transcript) and/or in the student's WWU transfer equivalency report.
- If the student has attended more than one institution then the student's GPA for purposes of application to the Kinesiology major is calculated as a weighted average of the GPAs obtained at each of the schools attended. (Advanced placement classes are not included in the calculation; running start classes recorded on a community college transcript are included.)
- Admission to each specialization will be determined on a space available basis after ranking candidates by GPA, from high to low. GPA admission averages for each specialization will be calculated each year based on the most current data and included in advising material that students can obtain from the Health and Human Development Department or the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- The application to the Kinesiology major is submitted via a link on the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- Deadlines for the application each year are as follows:
  - Second Friday of classes in fall quarter, for the students entering the major in the subsequent winter quarter.
  - Second Friday of classes in winter quarter, for the students entering the major in the subsequent spring quarter.
  - Second Friday of classes in spring quarter, for the students entering the major in the subsequent fall quarter.
- Transfer students attending a summer transitions program will not be able to apply to the major during the summer transitions program. Transfer students will apply in the fall, winter, or spring quarters according to the deadlines for application.

2. Student applicants are notified of the outcome of their application the soonest possible after the application deadline, well in advance of the registration phase I for the subsequent quarter.

3. Students admitted to the major are assigned to a program academic advisor and are required to meet with the advisor to make a plan of study. Conversion to major status will not be completed without a meeting with a program academic advisor.

4. If a student is denied entry into a Kinesiology major specialization, the student may apply again the next quarter to the same specialization. For example, if a student is not selected in the spring for fall quarter admission to the Pre Health Care Specialization, the student can apply again in the fall to the same Kinesiology Pre-Health Care Specialization.

5. If a student is denied entry into the Kinesiology major, the student may apply again to a different specialization after a delay of one quarter. For example, if a student is not selected in the spring for fall quarter admission to the Pre-Health Care Specialization, the student can apply in the winter to a different Kinesiology specialization. The one-quarter delay is designed to dissuade students from applying to specializations not focused in their area of interest.

6. Once admitted to a specialization, a student wishing to change to a different specialization must apply for admission to the new specialization following the deadlines for application, and can do so while continuing in the present specialization.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
- KIN 311 - Biomechanics
- KIN 312 - Functional Anatomy
- 3 credits from:
  - KIN 320 - Psychology of Sport
  - KIN 321 - Sociology of Sport
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 416 - Strength and Conditioning Program Design
- KIN 422 - Professional Issues in Health and Exercise Settings
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)  
and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)  
and KIN 472 - Internship II (12 credits)
- Select 4 credits from:
  - PE 101 - Beginning Conditioning
  - PE 104 - Beginning Yoga
  - PE 108 - Beginning Weight Training
  - PE 125 - Zumba
  - PE 134 - Beginning Pickleball
  - PE 144 - Beginning Soccer
  - PE 145 - Beginning Volleyball
  - PE 149 - Beginning Ultimate Disc
  - PE 168 - Beginning Martial Arts
- Select a minimum of 35 credits from:
  - BIOL 349 - Human Physiology
  - HLED 345 - Health Promotion/Disease Prevention
  - HLED 350 - Nutrition
  - KIN 304 - Prevention and Care of Athletic Injuries
  - KIN 315 - Fitness Instruction and Leadership
  - KIN 414 - Physical Activity and Nutrition

## HEALTH AND HUMAN DEVELOPMENT

KIN 415 - Physical Fitness Assessment and Exercise Prescription  
KIN 421 - Psychology of Exercise  
KIN 435 - Worksite Health Promotion  
CHEM 121 - General Chemistry I  
CHEM 122 - General Chemistry II  
CHEM 123 - General Chemistry III  
CHEM 251 - Elementary Organic Chemistry  
CHEM 375 - Elements of Biochemistry  
COMM 244 - Advocacy Through Media  
COMM 318 - Professional Communication  
COMM 325 - Intercultural Communication  
COMM 327 - Interpersonal Communication  
COMM 416 - Topics in Communication  
CSCI 101 - Computers and Applications  
CSCI 140 - Programming Fundamentals in C++  
ENG 302 - Introduction to Technical and Professional Writing  
PHYS 114 - Principles of Physics I  
PHYS 115 - Principles of Physics II  
PHYS 116 - Principles of Physics III  
PSY 220 - Behavioral Neuroscience  
PSY 230 - Lifespan Developmental Psychology  
PSY 250 - Introduction to Abnormal Psychology  
Up to one course from (none required):  
    KIN 307 - Statistics in Exercise & Sport Science  
    MATH 240 - Introduction to Statistics  
Up to one course from (none required):  
    KIN 308 - Human Growth and Motor Development  
    KIN 409 - Aging and Functional Assessments  
Up to one course from (none required):  
    KIN 320 - Psychology of Sport  
    KIN 321 - Sociology of Sport  
NOTE: KIN 308, KIN 320, KIN 321 and KIN 409 cannot be counted twice.

### **Kinesiology — Pre-Healthcare Professions Specialization, BS**

Department of Health and Human Development, College of Humanities and Social Sciences

#### **103-104 credits**

#### **Introduction**

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

#### **Why Consider a Pre-Healthcare Professions Specialization in the Kinesiology Major?**

The pre-healthcare professions option is available for students who wish to pursue post-baccalaureate study in a healthcare profession such as occupational therapy, physician assistant, nursing, naturopathy or chiropractic. Students meet with an advisor to select a set of courses that will meet the admission requirements of their program(s) of choice. This option also can serve as a foundation for graduate study in exercise science.

The Kinesiology major is in very high demand at Western. See the Kinesiology pre-major and major declaration policy to learn how and when you can declare the pre-major. Prior to declaring the pre-major, and



after declaring the pre-major but before being advanced to major status, WWU students are strongly urged to obtain and utilize advising information from the Kinesiology program web page, or the HHD department office (Bond Hall 103), to know what classes are recommended to be taken to prepare for the major. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.**

#### Contact Information

##### General Kinesiology Information

Sherena Geariety  
Bond Hall 103  
360-650-3505  
Sherena.Geariety@wwu.edu

##### Pre-Healthcare Professions Specialization Advisors

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu  
David Suprak  
Environmental Studies 02  
360-650-2586  
David.Suprak@wwu.edu  
Michelle Mielke  
360-650-4277  
Michelle.Mielke@wwu.edu  
Jun San Juan  
Environmental Studies 02  
360-650-2336  
Jun.SanJuan@wwu.edu

##### Program Coordinator

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu

#### Sample Careers

Nursing\* | Occupational Therapy\* | Physician Assistant\* | Naturopathic Medicine\* | Chiropractic Medicine\* | Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Application and Declaration Process):

1. WWU students with at least 75 credits completed and a GPA of at least 2.50 may apply to enter one of the five specializations in the Kinesiology major:

- Applications from one student to multiple Kinesiology specializations are not permitted.
- At the time of application the 75 or more credits must be recorded in the student's WWU academic history (WWU transcript) and/or in the student's WWU transfer equivalency report.
- If the student has attended more than one institution then the student's GPA for purposes of application to the Kinesiology major is calculated as a weighted average of the GPAs obtained at each of the schools attended. (Advanced placement classes are not included in the calculation; running start classes recorded on a community college transcript are included.)
- Admission to each specialization will be determined on a space available basis after ranking candidates by GPA, from high to low. GPA admission averages for each specialization will be calculated each year based on the most current data and included in advising material that students can obtain from the Health and Human Development Department or the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- The application to the Kinesiology major is submitted via a link on the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- Deadlines for the application each year are as follows:
  - Second Friday of classes in fall quarter, for the students entering the major in the subsequent winter quarter.
  - Second Friday of classes in winter quarter, for the students entering the major in the subsequent spring quarter.
  - Second Friday of classes in spring quarter, for the students entering the major in the subsequent fall quarter.

## HEALTH AND HUMAN DEVELOPMENT

- Transfer students attending a summer transitions program will not be able to apply to the major during the summer transitions program. Transfer students will apply in the fall, winter, or spring quarters according to the deadlines for application.
2. Student applicants are notified of the outcome of their application the soonest possible after the application deadline, well in advance of the registration phase I for the subsequent quarter.
  3. Students admitted to the major are assigned to a program academic advisor and are required to meet with the advisor to make a plan of study. Conversion to major status will not be completed without a meeting with a program academic advisor.
  4. If a student is denied entry into a Kinesiology major specialization, the student may apply again the next quarter to the same specialization. For example, if a student is not selected in the spring for fall quarter admission to the Pre Health Care Specialization, the student can apply again in the fall to the same Kinesiology Pre-Health Care Specialization.
  5. If a student is denied entry into the Kinesiology major, the student may apply again to a different specialization after a delay of one quarter. For example, if a student is not selected in the spring for fall quarter admission to the Pre-Health Care Specialization, the student can apply in the winter to a different Kinesiology specialization. The one-quarter delay is designed to dissuade students from applying to specializations not focused in their area of interest.
  6. Once admitted to a specialization, a student wishing to change to a different specialization must apply for admission to the new specialization following the deadlines for application, and can do so while continuing in the present specialization.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
- KIN 311 - Biomechanics
- KIN 312 - Functional Anatomy
- One course from:
  - KIN 320 - Psychology of Sport
  - KIN 321 - Sociology of Sport
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 416 - Strength and Conditioning Program Design
- KIN 422 - Professional Issues in Health and Exercise Settings
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)  
and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)  
and KIN 472 - Internship II (12 credits)
- Select 4 credits from:

PE 101 - Beginning Conditioning  
 PE 104 - Beginning Yoga  
 PE 108 - Beginning Weight Training  
 PE 125 - Zumba  
 PE 134 - Beginning Pickleball  
 PE 144 - Beginning Soccer  
 PE 145 - Beginning Volleyball  
 PE 149 - Beginning Ultimate Disc  
 PE 168 - Beginning Martial Arts

□ Students should select 53 credits if they complete the field experience option, or 45 credits if they complete the internship option.

ANTH 201 - Introduction to Cultural Anthropology  
 ANTH 215 - Introductory Biological Anthropology  
 BIOL 204 - Introduction to Evolution, Ecology and Biodiversity  
 BIOL 205 - Introduction to Cellular and Molecular Biology  
 BIOL 206 - Introduction to Organismal Biology  
 BIOL 245 - Microbiology for Health Sciences  
 BIOL 349 - Human Physiology  
 CHEM 121 - General Chemistry I  
 CHEM 122 - General Chemistry II  
 CHEM 123 - General Chemistry III  
 CHEM 251 - Elementary Organic Chemistry  
 CHEM 351 - Organic Chemistry  
 CHEM 352 - Organic Chemistry  
 CHEM 353 - Organic Chemistry  
 CHEM 354 - Organic Chemistry Laboratory I  
 CHEM 356 - Organic Chemistry Laboratory II for Life Sciences  
 CHEM 375 - Elements of Biochemistry  
 ENG 302 - Introduction to Technical and Professional Writing  
 HLED 345 - Health Promotion/Disease Prevention  
 KIN 409 - Aging and Functional Assessments  
 KIN 421 - Psychology of Exercise  
 PHYS 101 - Physics Analysis  
 PHYS 114 - Principles of Physics I  
 PHYS 115 - Principles of Physics II  
 PHYS 116 - Principles of Physics III  
 PSY 101 - Introduction to Psychology  
 PSY 230 - Lifespan Developmental Psychology  
 PSY 250 - Introduction to Abnormal Psychology  
 Up to one course from (none required):  
 KIN 307 - Statistics in Exercise & Sport Science  
 MATH 240 - Introduction to Statistics  
 Up to one course from (none required):  
 KIN 414 - Physical Activity and Nutrition  
 HLED 350 - Nutrition  
 NOTE: KIN 409 cannot be counted twice.

## Kinesiology — Pre-Physical Therapy Specialization, BS

Department of Health and Human Development, College of Humanities and Social Sciences

### 103-104 credits

#### Introduction

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, nursing, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/ fitness, biomechanics, physical

## HEALTH AND HUMAN DEVELOPMENT

therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

### Why Consider a Pre-Physical Therapy Specialization in the Kinesiology Major?

The pre-physical therapy option is available for students who wish to pursue graduate study in a physical therapy program. Students meet with an advisor to select a set of courses that will meet the admission requirements of their program(s) of choice. This option also can serve as a foundation for graduate study in exercise science.

The Kinesiology major is in very high demand at Western. See the Kinesiology pre-major and major declaration policy to learn how and when you can declare the pre-major. Prior to declaring the pre-major, and after declaring the pre-major but before being advanced to major status, WWU students are strongly urged to obtain and utilize advising information from the Kinesiology program web page, or the HHD department office (Bond Hall 103), to know what classes are recommended to be taken to prepare for the major. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.**

#### Contact Information

##### General Kinesiology Information

Sherena Geariety  
Bond Hall 103  
360-650-3505  
Sherena.Geariety@wwu.edu

##### Pre-Physical Therapy Specialization Advisors

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu  
David Suprak  
Environmental Studies 02  
360-650-2586  
David.Suprak@wwu.edu  
Michelle Mielke  
360-650-4277  
Michelle.Mielke@wwu.edu  
Jun San Juan  
Environmental Studies 02  
360-650-2336  
Jun.SanJuan@wwu.edu

##### Program Coordinator

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu

#### Sample Careers

Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Application and Declaration Process):

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- At the time of application the 75 or more credits must be recorded in the student's WWU academic history (WWU transcript) and/or in the student's WWU transfer equivalency report.
- If the student has attended more than one institution then the student's GPA for purposes of application to the Kinesiology major is calculated as a weighted average of the GPAs obtained at each of the schools attended. (Advanced placement classes are not included in the calculation; running start classes recorded on a community college transcript are included.)
- Admission to each specialization will be determined on a space available basis after ranking candidates by GPA, from high to low. GPA admission averages for each specialization will be calculated each year based on the most current data and included in advising material that students can obtain from the

Health and Human Development Department or the Kinesiology program website at [www.edu/hhd/kinesiology](http://www.edu/hhd/kinesiology).

- The application to the Kinesiology major is submitted via a link on the Kinesiology program website at [www.edu/hhd/kinesiology](http://www.edu/hhd/kinesiology).
- Deadlines for the application each year are as follows:
  - Second Friday of classes in fall quarter, for the students entering the major in the subsequent winter quarter.
  - Second Friday of classes in winter quarter, for the students entering the major in the subsequent spring quarter.
  - Second Friday of classes in spring quarter, for the students entering the major in the subsequent fall quarter.
- Transfer students attending a summer transitions program will not be able to apply to the major during the summer transitions program. Transfer students will apply in the fall, winter, or spring quarters according to the deadlines for application.

2. Student applicants are notified of the outcome of their application the soonest possible after the application deadline, well in advance of the registration phase I for the subsequent quarter.

3. Students admitted to the major are assigned to a program academic advisor and are required to meet with the advisor to make a plan of study. Conversion to major status will not be completed without a meeting with a program academic advisor.

4. If a student is denied entry into a Kinesiology major specialization, the student may apply again the next quarter to the same specialization. For example, if a student is not selected in the spring for fall quarter admission to the Pre Health Care Specialization, the student can apply again in the fall to the same Kinesiology Pre-Health Care Specialization.

5. If a student is denied entry into the Kinesiology major, the student may apply again to a different specialization after a delay of one quarter. For example, if a student is not selected in the spring for fall quarter admission to the Pre-Health Care Specialization, the student can apply in the winter to a different Kinesiology specialization. The one-quarter delay is designed to dissuade students from applying to specializations not focused in their area of interest.

6. Once admitted to a specialization, a student wishing to change to a different specialization must apply for admission to the new specialization following the deadlines for application, and can do so while continuing in the present specialization.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
- KIN 311 - Biomechanics
- KIN 312 - Functional Anatomy
- One course from:
  - KIN 320 - Psychology of Sport
  - KIN 321 - Sociology of Sport
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 416 - Strength and Conditioning Program Design
- KIN 422 - Professional Issues in Health and Exercise Settings
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)

## HEALTH AND HUMAN DEVELOPMENT

and KIN 492 - Field Experience II (3 credits)

OR

KIN 491 - Field Experience I (3 credits)

and KIN 493 - Exercise And Sport Science Research (3 credits)

OR

KIN 491 - Field Experience I (3 credits)

and KIN 494 - Instructional Assistant (3 credits)

OR

KIN 471 - Internship I (3 credits)

and KIN 472 - Internship II (12 credits)

□ Select 4 credits from:

PE 101 - Beginning Conditioning

PE 104 - Beginning Yoga

PE 108 - Beginning Weight Training

PE 125 - Zumba

PE 134 - Beginning Pickleball

PE 144 - Beginning Soccer

PE 145 - Beginning Volleyball

PE 149 - Beginning Ultimate Disc

PE 168 - Beginning Martial Arts

□ Students should select 53 credits if they complete the field experience option, or 45 credits if they complete the internship option.

BIOL 204 - Introduction to Evolution, Ecology and Biodiversity

BIOL 205 - Introduction to Cellular and Molecular Biology

BIOL 206 - Introduction to Organismal Biology

BIOL 245 - Microbiology for Health Sciences

BIOL 349 - Human Physiology

CHEM 121 - General Chemistry I

CHEM 122 - General Chemistry II

CHEM 123 - General Chemistry III

CHEM 251 - Elementary Organic Chemistry

ENG 302 - Introduction to Technical and Professional Writing

KIN 409 - Aging and Functional Assessments

KIN 421 - Psychology of Exercise

PHYS 114 - Principles of Physics I

PHYS 115 - Principles of Physics II

PHYS 116 - Principles of Physics III

PSY 101 - Introduction to Psychology

PSY 230 - Lifespan Developmental Psychology

PSY 250 - Introduction to Abnormal Psychology

Up to one course from (none required):

KIN 307 - Statistics in Exercise & Sport Science

MATH 240 - Introduction to Statistics

## Kinesiology — Sport Psychology Specialization, BS

Department of Health and Human Development, College of Humanities and Social Sciences

**86-98 credits**

### Introduction

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/ fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

## Why Consider a Sport Psychology Specialization in the Kinesiology Major?

The sport psychology option provides students with the behavioral knowledge and educational techniques to enhance performance in recreational, exercise, and athletic settings. This option provides an emphasis in psychology and exercise science that will serve as preparation for coaching and as an adequate set of prerequisites for post-baccalaureate study in sport and/or exercise psychology.

The Kinesiology major is in very high demand at Western. See the Kinesiology pre-major and major declaration policy to learn how and when you can declare the pre-major. Prior to declaring the pre-major, and after declaring the pre-major but before being advanced to major status, WWU students are strongly urged to obtain and utilize advising information from the Kinesiology program web page, or the HHD department office (Bond Hall 103), to know what classes are recommended to be taken to prepare for the major. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.**

Contact Information		
<b>General Kinesiology Information</b>	<b>Sport Psychology Specialization Advisor</b>	<b>Program Coordinator</b>
Sherena Geariety Bond Hall 103 360-650-3505 Sherena.Geariety@wwu.edu	Linda Keeler Bond Hall 418E 360-650-3514 Linda.Keeler@wwu.edu	Gordon Chalmers Engineering Technology 275 360-650-3113 Gordon.Chalmers@wwu.edu
Sample Careers		
Athletic & Wellness Coaching   Wellness Coordinator   Health & Fitness Professional   Personal Trainer   Athletic Trainer*   Graduate School in Kinesiology*		
*with post-baccalaureate study		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Application and Declaration Process):

1. WWU students with at least 75 credits completed and a GPA of at least 2.50 may apply to enter one of the five specializations in the Kinesiology major:

- Applications from one student to multiple Kinesiology specializations are not permitted.
- At the time of application the 75 or more credits must be recorded in the student's WWU academic history (WWU transcript) and/or in the student's WWU transfer equivalency report.
- If the student has attended more than one institution then the student's GPA for purposes of application to the Kinesiology major is calculated as a weighted average of the GPAs obtained at each of the schools attended. (Advanced placement classes are not included in the calculation; running start classes recorded on a community college transcript are included.)
- Admission to each specialization will be determined on a space available basis after ranking candidates by GPA, from high to low. GPA admission averages for each specialization will be calculated each year based on the most current data and included in advising material that students can obtain from the Health and Human Development Department or the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- The application to the Kinesiology major is submitted via a link on the Kinesiology program website at [www.wwu.edu/hhd/kinesiology](http://www.wwu.edu/hhd/kinesiology).
- Deadlines for the application each year are as follows:
  - Second Friday of classes in fall quarter, for the students entering the major in the subsequent winter quarter.
  - Second Friday of classes in winter quarter, for the students entering the major in the subsequent spring quarter.
  - Second Friday of classes in spring quarter, for the students entering the major in the subsequent fall quarter.
- Transfer students attending a summer transitions program will not be able to apply to the major during the summer transitions program. Transfer students will apply in the fall, winter, or spring quarters according to the deadlines for application.

2. Student applicants are notified of the outcome of their application the soonest possible after the application deadline, well in advance of the registration phase I for the subsequent quarter.

## HEALTH AND HUMAN DEVELOPMENT

3. Students admitted to the major are assigned to a program academic advisor and are required to meet with the advisor to make a plan of study. Conversion to major status will not be completed without a meeting with a program academic advisor.

4. If a student is denied entry into a Kinesiology major specialization, the student may apply again the next quarter to the same specialization. For example, if a student is not selected in the spring for fall quarter admission to the Pre Health Care Specialization, the student can apply again in the fall to the same Kinesiology Pre-Health Care Specialization.

5. If a student is denied entry into the Kinesiology major, the student may apply again to a different specialization after a delay of one quarter. For example, if a student is not selected in the spring for fall quarter admission to the Pre-Health Care Specialization, the student can apply in the winter to a different Kinesiology specialization. The one-quarter delay is designed to dissuade students from applying to specializations not focused in their area of interest.

6. Once admitted to a specialization, a student wishing to change to a different specialization must apply for admission to the new specialization following the deadlines for application, and can do so while continuing in the present specialization.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
- KIN 311 - Biomechanics
- KIN 312 - Functional Anatomy
- KIN 320 - Psychology of Sport
- KIN 321 - Sociology of Sport
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 416 - Strength and Conditioning Program Design
- KIN 420 - Seminar in Sport Psychology
- KIN 421 - Psychology of Exercise
- KIN 422 - Professional Issues in Health and Exercise Settings
- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- PSY 230 - Lifespan Developmental Psychology
- PSY 240 - Social Psychology
- PSY 250 - Introduction to Abnormal Psychology
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)  
and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)  
and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)  
and KIN 472 - Internship II (12 credits)
- Select 4 credits from:
  - PE 101 - Beginning Conditioning



PE 104 - Beginning Yoga  
PE 108 - Beginning Weight Training  
PE 125 - Zumba  
PE 134 - Beginning Pickleball  
PE 144 - Beginning Soccer  
PE 145 - Beginning Volleyball  
PE 149 - Beginning Ultimate Disc  
PE 168 - Beginning Martial Arts

☐ Select one course under advisement from:

HLED 345 - Health Promotion/Disease Prevention  
KIN 304 - Prevention and Care of Athletic Injuries  
KIN 307 - Statistics in Exercise & Sport Science  
KIN 315 - Fitness Instruction and Leadership  
KIN 414 - Physical Activity and Nutrition  
KIN 415 - Physical Fitness Assessment and Exercise Prescription  
PSY 119 - Psychology of Gender  
PSY 220 - Behavioral Neuroscience  
PSY 319 - Cognitive Neuroscience  
PSY 322 - Motivation  
PSY 323 - Psychopharmacology  
PSY 341 - Psychology and Culture  
PSY 375 - Health Psychology  
PSY 377 - Positive Psychology

## Master of Science

### Kinesiology, Exercise Science Option, Thesis, MS

Department of Health and Human Development, College of Humanities and Social Sciences

#### Graduate Faculty

**Arthur-Cameselle, Jessyca**, EdD, sport and exercise psychology.  
**Brilla, Lorraine**, PhD, exercise physiology/nutrition.  
**Buddhadev, Harsh**, PhD, biomechanics/motor control.  
**Chalmers, Gordon**, PhD, motor control.  
**Hilgendorf, Kari Jo**, PhD, exercise physiology/nutrition.  
**Keeler, Linda**, EdD, sport and exercise psychology.  
**Martin, LeaAnn**, PhD, pedagogy/elementary physical education/curriculum.  
**San Juan, Jun**, PhD, biomechanics/athletic training.  
**Suprak, David**, PhD, biomechanics/strength and conditioning.

Program Advisor: Lorrie Brilla, 360-650-3056

#### Program Description

Graduate study leading to a Master of Science degree in Kinesiology is offered with two options: exercise science and sport psychology.

The purpose of the exercise science option is to provide students with the technical and professional knowledge necessary for the assessment and improvement of human movement and performance. Students will be provided with information that will assist them in the design and implementation of programs that enhance human movement and performance. Through independent research and inquiry, students will solve problems associated with human movement and performance.

#### Goals

The educational mission of the program is to develop individuals who make informed decisions about exercise, human movement, and performance, that foster health and physically active lifestyles. To this end faculty are dedicated to quality teaching, scholarship and service.

# HEALTH AND HUMAN DEVELOPMENT

## Prerequisites

Kinesiology major/minor or equivalent courses from the exercise science, behavioral and cultural and professional activity areas are required prerequisites for the graduate program. An applicant to the **exercise science program** who does not have a Kinesiology-related major or minor must take the following equivalency courses: three courses from the exercise science area (KIN 306, 308, 309, 311, 312, 410, 413, 416), one behavioral and cultural foundations course (KIN 320, 321, 421), and two credits from the PE 100-level activity courses.

All applicants must have taken an introductory statistics course. These courses may be taken concurrently with graduate courses but must be completed before submitting a thesis proposal. Equivalent courses taken at other institutions may be applied.

## Application Information

**Admission:** Program faculty will review application materials for notification by January 15 and will continue to review materials until the enrollment is reached or June 1, whichever comes first for fall quarter admission. Students may enter at other quarters. Because maximum student enrollment in the exercise science program is limited, all applicants are strongly encouraged to submit application materials by January 15. The exercise science area accepts students every year.

Specific Test Requirements: Graduate Record Exam, General Test; applicants with advanced degrees are not required to submit GRE scores.

**Deadlines:** Please see Graduate School deadlines.

**TA Deadlines:** To receive full consideration for a graduate teaching assistantship, applicants should have their application materials reviewed by January 15.

## Supporting Materials:

- Students must submit a written statement of purpose outlining areas of interest, goals for graduate study and future career plans relating to the degree.
- Recommendations must include at least two from faculty who can comment on academic abilities and potential for success in graduate studies.
- GPA

## Program Requirements (47-50 credits)

- Basic requirements: (13-16)
  - KIN 506 - Research Design in Human Movement and Performance
  - KIN 520 - Readings in Human Movement and Performance
  - KIN 690 - Thesis
- Required courses: (20)
  - KIN 510 - Laboratory Techniques in Exercise Science
  - KIN 513 - Exercise Prescription and Programming
  - KIN 540 - Applied Exercise Physiology
  - KIN 543 - Biomechanical Analysis of Human Movement
  - KIN 544 - Biomechanics of the Musculoskeletal System
- Electives: — Select 14 credits from:
  - KIN 502 - Research Topics in Human Movement and Performance
  - KIN 507 - Motor Control
  - KIN 511 - Physical Activity and Hypokinetic Diseases
  - KIN 516 - Advanced Conditioning Principles and Practice
  - KIN 541 - Foundations and Ethics of Sport Psychology
  - KIN 592 - Internship
  - 400 level courses selected under departmental advisement

## Kinesiology, Sport and Exercise Psychology Option, Thesis, MS

Department of Health and Human Development, College of Humanities and Social Sciences

### Graduate Faculty

**Arthur-Cameselle, Jessyca**, EdD, sport and exercise psychology.  
**Brilla, Lorraine**, PhD, exercise physiology/nutrition.  
**Buddhadev, Harsh**, PhD, biomechanics/motor control.  
**Chalmers, Gordon**, PhD, motor control.  
**Hilgendorf, Kari Jo**, PhD, exercise physiology/nutrition.  
**Keeler, Linda**, EdD, sport and exercise psychology.  
**Martin, LeaAnn**, PhD, pedagogy/elementary physical education/curriculum.  
**San Juan, Jun**, PhD, biomechanics/athletic training.  
**Suprak, David**, PhD, biomechanics/strength and conditioning.

Program Advisor: Dr. Lorrie Brilla, 360-650-3056

### Program Description

Graduate study leading to a Master of Science degree in Kinesiology is offered with two options: exercise science and sport and exercise psychology.

This purpose of the sport and exercise psychology option is to educate students technically and professionally in the area of sport and exercise psychology. The focus is on assisting students in the design, implementation, and assessment of the psychological components of exercise, sport, and wellness programs. Through independent research and inquiry, students will solve sport and exercise psychology related problems associated with human movement and performance.

### Goals

The educational mission of the program is to develop individuals who make informed decisions about exercise, human movement, and performance, that foster health and physically active lifestyles. To this end faculty are dedicated to quality teaching, scholarship and service.

### Prerequisites

Kinesiology major/minor or equivalent courses from the exercise science, behavioral and cultural and professional activity areas are required prerequisites for the graduate program. An applicant to the **sport and exercise psychology** program who does not have a Kinesiology-related major or minor must take the following equivalency courses: two courses from the exercise science area (KIN 306, 308, 309, 311, 312, 410, 413, 416), two behavioral and cultural foundations courses (KIN 320, 321, 421), and two credits from the PE 100-level activity courses.

### Application Information

**Admission:** Program faculty will review application materials for notification by January 15 and will continue to review materials until the enrollment is reached or June 1, whichever comes first for fall quarter admission in odd-numbered years.

Entry to the sport and exercise psychology graduate program is competitive based on qualifications. A cohort student group is admitted on an alternate year basis in the fall quarter of odd-numbered years and is comprised of 3-5 students.

Students from all undergraduate majors are eligible to apply to the program. A sport psychology course, a statistics course, and three additional psychology courses are preferred at the time of application. Applicants without an undergraduate sport psychology course and statistics course who are admitted to the program must complete both courses prior to enrollment. Admitted students without the additional three undergraduate psychology courses will need to satisfy any specific prerequisites prior to enrolling in any graduate psychology course electives.

## HEALTH AND HUMAN DEVELOPMENT

After initial screening of applications, the faculty will select individuals to invite for phone interviews.

**Specific Test Requirements:** Graduate Record Exam, General Test; applicants with advanced degrees are not required to submit GRE scores.

**Deadlines:** Please see Graduate School deadlines.

**TA Deadlines:** To receive full consideration for a graduate teaching assistantship, applicants should have their application materials submitted by January 15.

### Supporting Materials:

- Students must submit a written statement of purpose outlining areas of interest, goals for graduate study and future career plans relating to the degree.
- Recommendations must include at least two from faculty who can comment on academic abilities and potential for success in graduate studies.
- GPA
- Undergraduate degree (major)

### Program Requirements (46-49 credits)

- Basic Requirements: (13-16)
  - KIN 506 - Research Design in Human Movement and Performance
  - KIN 520 - Readings in Human Movement and Performance
  - KIN 690 - Thesis
- Required Courses: (18)
  - KIN 541 - Foundations and Ethics of Sport Psychology
  - KIN 542 - Seminar in Sport Sociology
  - KIN 551 - Applied Sport and Exercise Psychology
  - KIN 592 - Internship
- Electives: 15 credits (at least 10 credits required from psychology)
  - KIN 421 - Psychology of Exercise
  - KIN 502 - Research Topics in Human Movement and Performance
  - KIN 507 - Motor Control
  - KIN 511 - Physical Activity and Hypokinetic Diseases
  - KIN 513 - Exercise Prescription and Programming
  - KIN 540 - Applied Exercise Physiology
  - KIN 543 - Biomechanical Analysis of Human Movement
  - KIN 544 - Biomechanics of the Musculoskeletal System
  - PSY 502 - Adult Psychopathology
  - PSY 503 - Cognition
  - PSY 504 - Lifespan Psychological Development
  - PSY 505 - Social Psychology
  - PSY 512 - Correlation Methods and Data Analysis
  - PSY 554 - Standardized Tests
  - 400 level courses selected under departmental advisement (maximum 10 credits).

## Minor

### Sport Psychology Minor

Combined minor offered by the Department of Psychology and the Department of Health and Human Development, College of Humanities and Social Sciences

**30 credits**

## Introduction

This interdisciplinary program is designed to introduce the student to the discipline of sport psychology. More specifically, it emphasizes the educational and behavioral approaches to sport psychology that can be applied in recreational, exercise, and athletic settings.

## Why Consider a Sport Psychology Minor?

The sports psychology minor provides students with the behavioral knowledge and psychosocial educational techniques related to the psychosocial aspects of athletic, exercise, recreational and performance settings. This minor provides skills that will serve as preparation for incorporation of consideration and instructional techniques to enhance any human performance or health related field.

Contact Information		
<b>General Kinesiology Information</b> Sherena Sierra Bond Hall 103 360-650-3505 Sherena.Sierra@wwu.edu	<b>Sport Psychology Specialization Advisors</b> Linda Keeler Bond Hall 418E 360-650-3514 Linda.Keeler@wwu.edu Jessyca Arthur-Cameselle Bond Hall 418D 360-650-2125 jessyca.arthur-cameselle@wwu.edu	<b>Program Coordinator</b> Gordon Chalmers Engineering Technology 275 360-650-3113 Gordon.Chalmers@wwu.edu

Sample Careers
Athletic/Physical Activity Coaching   Major dependent careers
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

## How to Declare (Admission and Declaration Process):

**For Admission:** There is a minimum capacity of 10 openings each year for the sport psychology minor (5 in the Fall quarter and 5 in the Winter quarter), with possible additional spots depending on major capacity (maximum 25). Students who have 75 credits completed, a 2.5 GPA, and have already declared their major (or have declared a psychology pre-major), may apply to the sport psychology minor. Should the number of applicants exceed the number of spots available, priority will be given to non-kinesiology majors in order of highest GPA, then to kinesiology majors in order of highest GPA. Students apply via the Kinesiology program website by the second Friday of classes in the Fall and Spring quarters for admission into the minor starting in the subsequent quarter. Students will be notified of acceptance before registration and will have to receive advising to develop a plan of study before registration overrides will be given.

Note: If the student has attended more than one institution then the student's GPA for purposes of application to the Kinesiology minor is calculated as a weighted average of the GPAs obtained at each of the schools attended. (Advanced placement classes are not included in the calculation; running start classes recorded on a community college transcript are included.)

**For Admission Application:** See the Kinesiology program website.

**For Advising:** Kinesiology or other non-psychology majors, contact Dr. Keeler or Dr. Arthur-Cameselle (see above). For psychology majors, contact one of the Department of Psychology Sport Psychology Minor Advisors: Dr. Kristi Lemm, 498 AIC East, 360-650-3187, Email: Kristi.Lemm@wwu.edu or Dr. Kelly Jantzen, 494 AIC East, 360-650-4046, Email: Kelly.Jantzen@wwu.edu.

**Advising tips:** Students may start taking psychology courses in anticipation of applying for the minor; however, that is not a guarantee that they will be admitted given the space limitations.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# HEALTH AND HUMAN DEVELOPMENT

## Requirements

- ❑ KIN 320 - Psychology of Sport
- ❑ KIN 321 - Sociology of Sport
- ❑ KIN 420 - Seminar in Sport Psychology
- ❑ KIN 421 - Psychology of Exercise
- ❑ PSY 101 - Introduction to Psychology
- ❑ Select 13 elective credits under advisement from:
  - PSY 119 - Psychology of Gender
  - PSY 210 - Cognition
  - PSY 220 - Behavioral Neuroscience
  - PSY 230 - Lifespan Developmental Psychology
  - PSY 240 - Social Psychology
  - PSY 250 - Introduction to Abnormal Psychology
  - PSY 319 - Cognitive Neuroscience
  - PSY 322 - Motivation
  - PSY 323 - Psychopharmacology
  - PSY 332 - Adolescent Development
  - PSY 341 - Psychology and Culture
  - PSY 375 - Health Psychology
  - PSY 377 - Positive Psychology

NOTE: Kinesiology majors cannot use KIN 320, KIN 321 and KIN 421 for both major and minor requirements and must select replacement courses from psychology electives (PSY 119, PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 319, PSY 322, PSY 323, PSY 332, PSY 341, PSY 375, PSY 377). Kinesiology and physical education majors cannot use PSY 119, 210-250 for both major and minor requirements.

NOTE: Psychology majors cannot use PSY 210-250, PSY 319, PSY 322 or PSY 323 for both major and minor requirements and should choose other courses under advisement.

## Coaching Development Courses

### CD 280 - Coaching Practicum - Basketball

A practical application of principles and techniques used in sport coaching, including program organization and administration, team building, teaching sports strategies, leadership principles related to sport performance, sport-related motor skill acquisition and performance principles, and the evaluation of coaching strategies and methods.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 2  
**Grade Mode:** S/U

### CD 281 - Coaching Practicum - Volleyball

A practical application of principles and techniques used in sport coaching, including program organization and administration, team building, teaching sports strategies, leadership principles related to sport performance, sport-related motor skill acquisition and performance principles, and the evaluation of coaching strategies and methods.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 2  
**Grade Mode:** S/U

### CD 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### CD 343 - Sports Officiating/Track & Field

Officiating techniques for individual and team sports.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 2  
**Grade Mode:** Letter

### CD 381 - Coaching Sports: Basketball

Practical and theoretical aspects of coaching the sport with special emphasis on advanced skill development and current methodology and resource material being utilized.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

## CD 383 - Coaching Sports: Track

Practical and theoretical aspects of coaching the sport with special emphasis on advanced skill development and current methodology and resource material being utilized.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

## CD 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## CD 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## Health Education Courses

### HLED 150 - Consumer and Environmental Health

Analysis of media promotion of health products and services; health fraud; choosing health/medical care; investigation of environmental factors that affect human health; consumer and environmental protection agencies.

**Prerequisites & Notes:** open registration begins Phase II

**Credits:** 4

**Grade Mode:** Letter

### HLED 151 - Society and Drugs

Physiological and behavioral effects of legal and illegal drugs; societal substance use and abuse;

alternatives to drug use.

**Credits:** 2

**Grade Mode:** Letter

### HLED 152 - Society and Sex

Sociological, psychological, and biological aspects of human sexuality.

**Credits:** 2

**Grade Mode:** Letter

### HLED 201 - Perspectives of Human Lifestyle and Wellness

Overview and analysis of the role and place lifestyle and wellness play in society (past, present and future). Issues in health, fitness, and lifestyle choices.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SSC

### HLED 210 - Introduction to Public Health

A survey of public health principles, history, philosophy, services, ethics, tools, systems, interventions, and applications to current events.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### HLED 250 - Health of the College Student

Analysis of major health risks; personal health status assessment; strategies for reducing risk behaviors and promoting healthy lifestyles among college students. S/U grading.

**Prerequisites & Notes:** HLED 150, HLED 151, HLED 152 recommended

**Credits:** 4

**Grade Mode:** S/U

### HLED 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### HLED 345 - Health Promotion/Disease Prevention

## HEALTH AND HUMAN DEVELOPMENT

Investigation of chronic/degenerative diseases and infectious/communicable illnesses; intentional and unintentional injuries; relationship of lifestyle choices and personal beliefs to well-being.

**Prerequisites & Notes:** BIOL 101 or BIOL 205  
**Credits:** 4  
**Grade Mode:** Letter

### **HLED 350 - Nutrition**

Study of functions of nutrients in the body, factors that govern nutrient requirements, and the impact of diet on health and disease.

**Prerequisites & Notes:** BIOL 101 or BIOL 205 or CHEM 115 or CHEM 121; junior standing.  
**Credits:** 3  
**Grade Mode:** Letter

### **HLED 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **HLED 407 - Principles and Foundations of Health Education**

History, philosophy, ethics, health behavior theories and models, credentialing, occupations, professional organizations and literature, current issues, and future trends in health education practice.

**Prerequisites & Notes:** BIOL 348  
**Credits:** 5  
**Grade Mode:** Letter

### **HLED 410 - Health Communication and Social Marketing**

Examines the key concepts and practical skills of health communication/social marketing campaigns and their application to individual, group, and community public health initiatives.

**Prerequisites & Notes:** HLED 407, HLED 460  
**Credits:** 4  
**Grade Mode:** Letter

### **HLED 420 - Epidemiology and Biostatistics**

An introduction to biostatistics and epidemiology in community health.

**Prerequisites & Notes:** Math 240 or KIN 307  
**Credits:** 5  
**Grade Mode:** Letter

### **HLED 432 - Organization and Administration of Community Health Programs**

Basic principles of organization and administration of health programs, leadership skills, and grant-writing.

**Prerequisites & Notes:** HLED 407, HLED 460, HLED 465  
**Credits:** 4  
**Grade Mode:** Letter

### **HLED 447 - Community Health**

Concept of community health, health advocacy, and cultural competence; role of government, nonprofit and private agencies; investigation of national health goals; engagement with community agencies required.

**Prerequisites & Notes:** BIOL 348 or concurrent; community health major.  
**Credits:** 4  
**Grade Mode:** Letter

### **HLED 450 - Methods and Materials in Health Education**

Principles and application of methodology for educating about health; learning styles; development of computer-generated materials; selection, utilization, and evaluation of resources.

**Prerequisites & Notes:** HLED 447  
**Credits:** 5  
**Grade Mode:** Letter

### **HLED 455 - Health Education Grades K-8**

Instructional methods in health for grades K-8; selection, analysis and application of health education curricula and materials; education about prevention of child abuse and alcohol/drug abuse, and AIDS/HIV.

**Prerequisites & Notes:** Admission to Woodring College of Education; ELED 370 or ELED 372 or SPED 420 or PE 340.  
**Credits:** 2  
**Grade Mode:** Letter

### **HLED 460 - Program Planning and Implementation of Health Programs**

Application of processes of program development in designing health education/health promotion programs.



**Prerequisites & Notes:** HLED 407, HLED 450

**Credits:** 5

**Grade Mode:** Letter

## **HLED 465 - Program Evaluation and Research Design**

Basics of health education program evaluation including formative, summative, process, impact and outcome evaluation. Research design and applied methods in program evaluation.

**Prerequisites & Notes:** HLED 420

**Credits:** 5

**Grade Mode:** Letter

## **HLED 471 - Internship I**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** HLED 407, HLED 410, HLED 420, HLED 432, HLED 447, HLED 450, HLED 460, HLED 465, and proof of malpractice insurance.

**Credits:** 3

**Grade Mode:** S/U

## **HLED 472 - Internship II**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** HLED 407, HLED 410, HLED 420, HLED 432, HLED 447, HLED 450, HLED 460, HLED 465, proof of malpractice insurance.

**Credits:** 12

**Grade Mode:** S/U

## **HLED 473 - Internship III**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** HLED 407, HLED 410, HLED 420, HLED 432, HLED 447, HLED 450, HLED 460, HLED 465, and proof of malpractice insurance.

**Credits:** 15

**Grade Mode:** S/U

## **Kinesiology Courses**

### **KIN 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **KIN 304 - Prevention and Care of Athletic Injuries**

Overview of current information on the care and prevention, and immediate care, of common sports injuries.

**Prerequisites & Notes:** KIN 306, BIOL 348.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 306 - Measurement and Evaluation in Kinesiology**

Application of the theory of measurement, evaluation and appropriate statistical processes to kinesiology programs; practical experiences involving test selection, administration and evaluation and interpretation of results in health and fitness settings.

**Credits:** 5

**Grade Mode:** Letter

### **KIN 307 - Statistics in Exercise & Sport Science**

Statistical techniques utilized in the exercise and sport science fields.

**Prerequisites & Notes:** KIN 306, or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 308 - Human Growth and Motor Development**

The study of postnatal growth, maturation, and physical activity, their interrelationship with cognitive and psychosocial development, with application to health promotion and physical activity programs for children and youth.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 311 - Biomechanics**

Application of basic mechanical principles to

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movement. Motion fundamentals, kinetics, kinematics, aerodynamics, hydrodynamics, equilibrium and external forces, rebound and spin, two-dimensional analysis, and the body as a machine; lab work is included.

**Prerequisites & Notes:** KIN 306 or concurrent; completion of Math GURs.

**Credits:** 5

**Grade Mode:** Letter

### **KIN 312 - Functional Anatomy**

Muscles of the body that contribute to providing motion; origin, insertion, and action; principles of human movement, including the fundamental contributors to the production of muscle force and the analysis of how muscle actions contribute to achieving motion; performance analysis of basic locomotor movement, daily living activities and sports skills; lab work included.

**Prerequisites & Notes:** BIOL 348, junior status.

**Credits:** 5

**Grade Mode:** Letter

### **KIN 315 - Fitness Instruction and Leadership**

Instructional strategies, general progressions, pedagogical principles, teaching methods, class management, peer teaching, self-evaluation strategies, and supervision strategies for teaching in various health and fitness settings.

**Prerequisites & Notes:** KIN 308.

**Credits:** 2

**Grade Mode:** Letter

### **KIN 320 - Psychology of Sport**

Psychological principles and states which are present in sporting activities, both at recreational and highly competitive levels.

**Prerequisites & Notes:** KIN 306 or PE 443, or concurrent; permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 321 - Sociology of Sport**

Sociological implications of sport in contemporary American society.

**Prerequisites & Notes:** KIN 306 or PE 443 or concurrent; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 400 - Directed Independent Study**

An individualized course of study not available

through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **KIN 409 - Aging and Functional Assessments**

This course will be a study of age-related physical and psychosocial changes which occur during the older adult years, their interrelationship with physical activity, with application to health promotion and disease prevention. Additionally, this course will examine the physical functional assessment methods commonly used with older adults, including those that are novel or in development. The research foundations and effectiveness of such assessments will be examined, and their appropriate utilization and interpretation will be practiced with community senior volunteers.

**Prerequisites & Notes:** KIN 306; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 410 - Motor Control and Learning**

Principles of motor control and skill acquisition, as it relates to human movement.

**Prerequisites & Notes:** KIN 306 or PE 443; and BIOL 348.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 413 - Physiology of Exercise**

Nature of muscular, metabolic, cardiovascular and respiratory adjustments to acute and chronic exercise. The effect of training on fitness and health. Includes experimental laboratory sessions.

**Prerequisites & Notes:** KIN, PE or Community Health major status; BIOL 348; KIN 306 recommended; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **KIN 414 - Physical Activity and Nutrition**

Current topics on exercise and nutrition; weight control, dietary supplementation and performance, fluid regulation, atherosclerosis and diabetes. Applications include metabolic balance, consumer issues such as marketing strategies, label analysis, food choices, attributes of food products such as

natural, organic, fat-free, among others.

**Prerequisites & Notes:** KIN, PE or Community Health major status or permission of instructor; KIN 413, or concurrent.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 415 - Physical Fitness Assessment and Exercise Prescription**

Examine techniques of evaluation for physical fitness with an emphasis on aerobic capacity, flexibility, and body composition; case studies; develop appropriate exercise program and re-evaluation. Includes experimental laboratory sessions and practical laboratory skills analysis.

**Prerequisites & Notes:** KIN 413.

**Credits:** 5

**Grade Mode:** Letter

### **KIN 416 - Strength and Conditioning Program Design**

Theoretical and practical knowledge necessary to design safe and effective training programs for optimization of health, fitness and performance.

**Prerequisites & Notes:** KIN 312.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 420 - Seminar in Sport Psychology**

An interdisciplinary seminar (psychology/physical education) exploring core topics of sport psychology including: evaluation of athletes, research design and strategies, personality assessment, mental and physical preparation for competition, clinical applications.

**Prerequisites & Notes:** KIN 320, KIN 321, KIN 421; and 10 credits in psychology or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 421 - Psychology of Exercise**

This theory and application course will examine the relationship between personal, mental, and behavioral factors with exercise (bi-directional). Major topics will include, but are not limited to, the impact of exercise on mood states, mental health and immune function, exercise motivation, interventions and adherence.

**Prerequisites & Notes:** KIN 320

**Credits:** 3

**Grade Mode:** Letter

### **KIN 422 - Professional Issues in Health and Exercise Settings**

The focus of this course is on professional issues relating to human resources, philosophy, finance and legal concerns with a focus on technical and professional writing.

**Prerequisites & Notes:** KIN 306 or PE 443; Senior Status.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 435 - Worksite Health Promotion**

Theoretical and practical aspects of developing and implementing worksite health promotion programs, including student team development and implementation of a community worksite based health promotion program.

**Prerequisites & Notes:** HLED 345; HLED 350 or KIN 414

**Credits:** 5

**Grade Mode:** Letter

### **KIN 471 - Internship I**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### **KIN 472 - Internship II**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.

**Credits:** 12

**Grade Mode:** S/U

### **KIN 491 - Field Experience I**

Practical volunteer experience in agencies such as hospitals, physical therapy clinics, retirement or convalescent centers, worksite wellness programs, fitness facilitation, on-campus fitness programs and community sports organizations. S/U grading. Repeatable up to 6 credits including original course.

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**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### **KIN 492 - Field Experience II**

Practical volunteer experience in agencies such as hospitals, physical therapy clinics, retirement or convalescent centers, worksite wellness programs, fitness facilitation, on-campus fitness programs and community sports organizations. S/U grading. Repeatable up to 6 credits including original course.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### **KIN 493 - Exercise And Sport Science Research**

Investigation of a problem conducted independently or as part of a group under faculty supervision. S/U grading.

**Prerequisites & Notes:** 15 credits completed in Exercise and Sport Science; permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### **KIN 494 - Instructional Assistant**

Assist faculty in the classroom and lab instruction. Assist faculty with activities such as lab and lecture preparation and implementation, leading classroom discussions, assisting students with class materials. Duties vary by course and instructor but the time commitment will be 8 to 10 hours per week. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor; a minimum grade of B in the course for which the student will be a teaching assistant.

**Credits:** 3

**Grade Mode:** S/U

### **KIN 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not

eligible for tuition waiver.

**Credits:** 1-15

### **KIN 502 - Research Topics in Human Movement and Performance**

Prereq: permission of instructor. Supervised research or study in topics related to sociology/ psychology of sport, biomechanics, exercise physiology, motor learning/control, human growth and motor development, and epidemiology of physical activity. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1-5

**Grade Mode:** Letter

### **KIN 506 - Research Design in Human Movement and Performance**

Purpose and design of various research methods used in the analysis of human movement and performance problems; survey of common statistical applications; development of research proposals.

**Prerequisites & Notes:** Graduate status; MATH 240 or KIN 307 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 507 - Motor Control**

Examination of the structure and function of the human neuromuscular system, as it pertains to the production of movement.

**Prerequisites & Notes:** KIN 410 or equivalent.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 510 - Laboratory Techniques in Exercise Science**

Common laboratory techniques utilized in exercise science are presented with emphasis on body composition analysis, circulo-respiratory testing, phlebotomy/blood analysis, muscular strength and endurance, computer usage, force platform analysis, electromyography and motion capture techniques.

**Prerequisites & Notes:** KIN 311 and KIN 413 or equivalent, or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 511 - Physical Activity and Hypokinetic Diseases**

Survey of effects of physical activity on disease

processes related to hypokinesia: cardiovascular disease, obesity, diabetes, osteoporosis, arthritis, inflammation, sarcopenia. Overview of physical activity needs of special populations.

**Prerequisites & Notes:** KIN 413 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 513 - Exercise Prescription and Programming**

Design safe and effective physical activities for selected populations in rehabilitative, preventative, and competitive programs. Medico-legal aspects and administration of exercise prescription and programming. Case studies.

**Prerequisites & Notes:** KIN 413 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 516 - Advanced Conditioning Principles and Practice**

This course is designed to equip students with the theoretical and practical knowledge related to the most advanced and state-of-the-art methods used to maximize fitness and athletic performance.

**Prerequisites & Notes:** KIN 416 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 520 - Readings in Human Movement and Performance**

Directed readings, analysis, discussion of current literature on human movement culminating in a written paper and discussion of chosen topic.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **KIN 540 - Applied Exercise Physiology**

Selected topics in advanced exercise physiology: homeostasis, energy systems, metabolism, cardiorespiratory adjustments, hormonal control, neuromuscular physiology, nephrology, immunology, environmental responses and adaptations, by lecture and recitation.

**Prerequisites & Notes:** KIN 413 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 541 - Foundations and Ethics of Sport Psychology**

Theoretical foundations and behavioral applications of sport psychology including: history, ethics and current status of sport psychology, individual differences in sport behavior, motivation in sport, exercise psychology, social influence and sport, and the dynamics of sport groups.

**Prerequisites & Notes:** KIN 320 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 542 - Seminar in Sport Sociology**

The study of sport as a microcosm of society with particular emphasis on the following topical areas: economics and sport, social mobility and sport, socialization, ethnic issues and sport, gender issues and sport, education and sport, sport and politics, and current social issues and sport.

**Prerequisites & Notes:** KIN 321 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 543 - Biomechanical Analysis of Human Movement**

Kinematic and kinetic analysis of human movement with focus on practical application of mechanical laws governing human motion; laboratory and computer applications.

**Prerequisites & Notes:** KIN 311, 312 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 544 - Biomechanics of the Musculoskeletal System**

Selected topics relating to biomechanics of the musculoskeletal system, muscular and skeletal system characteristics, biomechanics of the hip, knee, shoulder, foot, ankle and vertebral column.

**Prerequisites & Notes:** KIN 311, 312 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 551 - Applied Sport and Exercise Psychology**

Provides comprehensive overview of applied educational strategies and techniques in sport and exercise psychology, including performance enhancement/intervention strategies and

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techniques, exercise psychology, psychosocial foundations of youth sport programs and psychology of coaching.

**Prerequisites & Notes:** KIN 541.

**Credits:** 4

**Grade Mode:** Letter

### **KIN 592 - Internship**

Supervised internship in schools, hospitals, clinics or corporation/industries as appropriate to complement the student's area of interest. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.

**Credits:** 1-6

**Grade Mode:** S/U

### **KIN 690 - Thesis**

Repeatable to a maximum of 9 credits.

**Prerequisites & Notes:** problem approval and permission of instructor.

**Credits:** 1-9

**Grade Mode:** Letter

### **KIN 699 - Continuous Enrollment**

S/U grading.

**Credits:** 2

**Grade Mode:** S/U

## Physical Education Courses

### **PE 101 - Beginning Conditioning**

Through lecture and physical practice, students will gain an understanding of the quantity and quality of exercise essential for developing and maintaining cardiorespiratory fitness, muscular fitness, and flexibility for healthy adults. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 103 - Beginning Jogging**

Through lecture and physical participation, students will learn safe jogging principles and techniques, experience improved cardiovascular fitness, and increase muscular endurance and conditioning. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 104 - Beginning Yoga**

Through lecture and physical participation, students will learn and practice yoga correctly and safely while enhancing health and well-being. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 106 - Intermediate Yoga**

Students will learn and demonstrate intermediate skills through safe Yoga practice including: flexibility, balance strength, mental focus, concentration, meditation, relaxation, breathing techniques, and vibrant health. S/U grading.

**Prerequisites & Notes:** PE 104

**Credits:** 1

**Grade Mode:** S/U

### **PE 108 - Beginning Weight Training**

Through lecture and physical participation, students will learn correct lifting and spotting technique, the basic muscle groups and weight training principles, and understand types of potential injuries and injury prevention. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 111 - Beginning Pilates**

A physical movement class designed to stretch, strengthen, and balance the body with focus on postural symmetry, breath control, abdominal strength, and muscular flexibility utilizing methods from the Pilates program. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 120 - Beginning Social Dance**

Through lecture and physical participation, students will gain a sense of rhythm (moving in time with the music), learn basic footwork and positioning for a variety of social dances, and practice techniques for leading and following. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 122 - Beginning Folk and Country Dance**

Introduction and practice of traveling and setting steps appropriate for a wide variety of English and Scottish Folk and Country dances. Students will learn how to put together 'figures' to form a dance. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

## PE 123 - Beginning Scottish Country Dancing

Introduction and practice to traveling and setting steps appropriate for Scottish Country dances in both reel and strathspey time. Students will learn about the tradition from which Scottish dances and their music have come. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

## PE 124 - Intermediate Scottish Country Dance

Introduction and practice of the more advanced Scottish Country Dance figures in both reel and strathspey time. A higher level of experience and concentration will be required of all students. S/U grading.

**Prerequisites & Notes:** PE 123  
**Credits:** 1  
**Grade Mode:** S/U

## PE 125 - Zumba

An interval dance-fitness class that combines Latin and International rhythms with easy to follow steps that focus on cardiovascular benefits and total body toning. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

## PE 132 - Beginning Badminton

Introduction and practice of the basic skills of both singles and doubles court positioning and strategy, game playing rules, scoring and etiquette. Students will work toward proficiency in basic badminton strokes (forehand, backhand, overhead clear, forehand smash, and short serve). S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

## PE 134 - Beginning Pickleball

Introduction and practice of the basic skills of both singles and doubles court positioning and strategy, game playing rules, scoring and etiquette. Students will work toward proficiency in basic pickleball strokes (forehand, backhand, lob, drop-

shot, dink, deep serve, and short serve). S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

## PE 136 - Beginning Tennis

Introduction and practice of the basic strokes (volley, serve, forehand, and backhand), rules, scoring, and court etiquette for singles and doubles tennis court positioning and playing strategy. S/U grading.

**Prerequisites & Notes:** Students must provide tennis racket and 3 good tennis balls. Court or cross-training shoes are required.

**Credits:** 1  
**Grade Mode:** S/U

## PE 139 - Beginning Racquetball

Introduction and practice of the basic shots (forehand, backhand, ceiling, back-wall, corner, and kill), rules, scoring, and court etiquette for singles, cut-throat, and doubles court positioning and playing strategy. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

## PE 144 - Beginning Soccer

Introduction, practice and demonstration of the basic soccer fundamentals (passing, controls, dribbling, heading, covering, shooting, tackling/jockeying); offensive and defensive concepts; game play, including goalkeeping; and knowledge of the rules of the game. S/U grading.

**Prerequisites & Notes:** Soccer shoes are recommended; running shoes do not provide adequate lateral support.

**Credits:** 1  
**Grade Mode:** S/U

## PE 145 - Beginning Volleyball

Introduction and practice of the basic individual and game playing skills, including serving, passing, spiking, setting, blocking, digging and floor skills. Students will be able to demonstrate mastery of the basic team patterns and understand the rules of play both in a game and in written form. S/U grading.

**Prerequisites & Notes:** Court or cross-training shoes are required.

**Credits:** 1  
**Grade Mode:** S/U

## PE 149 - Beginning Ultimate Disc

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Introduction and practice of the basic throwing, catching, offense and defensive skills. Students will gain an understanding of the 'spirit of the game,' and knowledge of rules and strategies (stacking, flow, cutting, forcing, and defensive set-up). S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 157 - Beginning Skiing**

Introduction and practice of beginning level skiing or snowboarding maneuvering skills and techniques. Students will be graded on effort, progress, overall participation and attitude. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 158 - Intermediate Skiing**

Introduction and practice of intermediate level skiing or snowboarding maneuvering skills and techniques. Students will be graded on effort, progress, overall participation and attitude. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 159 - Advanced Skiing**

Introduction and practice of advanced skiing or snowboarding maneuvering skills and techniques. Students will be graded on effort, progress, overall participation and attitude. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 165 - Beginning Four-Wall Handball**

Four-wall handball. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 166 - Intermediate Handball**

Demonstration and practice designed to enhance the student's skill level and dedication to the sport of four-wall handball. Exercise structures to influence focus, style, and versatility. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 167 - Beginning Mountain Bicycling**

S/U grading.

**Prerequisites & Notes:** Students must provide their own bicycle and required helmet.

**Credits:** 1

**Grade Mode:** S/U

### **PE 168 - Beginning Martial Arts**

Introduction and practice of the foundational principles of Judo and Ju-Jitsu as martial arts, and as they relate to fitness, safe falling, throwing techniques, controlling techniques, and ground techniques. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 169 - Beginning Self-Defense**

Introduction and practice of personal, physical and mental self-defense skills with significant focus on the use of posture and demeanor to de-escalate potential risk. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 170 - Beginning Sailing**

The purpose of the course is to teach students the basics of safe and effective sailing for life long health and enjoyment. Students will learn how to prepare for sailing and safely perform basic sailing skills. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **PE 171 - Beginning Sailboat and Racing**

Introduction to collegiate style sailboat racing, including: strategy, boat handling and tactics. Students will receive lectures, demonstrations and use on the water drills to develop the skills and concepts involved in racing. Emphasis on practical application, with racing on the water occurring as often as safe and practical. S/U grading.

**Prerequisites & Notes:** PE 170 or PE 179; or basic skippering skills.

**Credits:** 1

**Grade Mode:** S/U

### **PE 175 - Beginning Windsurfing**

The purpose of the course is to teach students the basics of safe and effective windsurfing for life-long health and enjoyment. Students will learn how to prepare for windsurfing and safely perform basic windsurfing skills. S/U grading.



**Credits:** 1  
**Grade Mode:** S/U

### PE 177 - Basic Kayak Touring

Course provides an introduction to the basic skills of Kayak Touring. Including boat handling, rescues, navigation, weather, safety tactics, and tide forecasting and trip planning. Instructional emphasis on the water paddling skills. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

### PE 179 - Intermediate Sailing

Course provides intermediate skills through the use of multiple designs of boats. Techniques for control and efficiency are examined as students learn to sail more complex and challenging boats. With more sophisticated boats and rig adjustments a more sophisticated understanding of the hydro and aerodynamic principals can be gained. S/U grading.

**Prerequisites & Notes:** PE 170 or instructor permission.

**Credits:** 1  
**Grade Mode:** S/U

### PE 181 - Intercollegiate Basketball

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### PE 183 - Intercollegiate Track and Field

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### PE 185 - Intercollegiate Golf

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team

meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### PE 189 - Intercollegiate Cross Country

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### PE 190 - Intercollegiate Rowing

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### PE 192 - Intercollegiate Volleyball

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### PE 193 - Intercollegiate Soccer

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### PE 194 - Intercollegiate Softball

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This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### **PE 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **PE 340 - Block I: Elementary Physical Education Methods**

Incorporates pedagogical principles and instructional techniques in physical education based on the characteristics and needs of elementary students with emphasis on rhythms and dance, fundamental movement, and gymnastics.

**Prerequisites & Notes:** Physical Education and Health P-12 pre-major status.

**Credits:** 5

**Grade Mode:** Letter

### **PE 341 - Block II: Elementary Physical Education Methods**

Incorporates pedagogical principles and instructional techniques in physical education based on the characteristics and needs of elementary students with emphasis on fitness development, fundamental skills, sport-related activities and contemporary recreational activities.

**Prerequisites & Notes:** PE 340, P-12 PE and Health major

**Credits:** 5

**Grade Mode:** Letter

### **PE 341P - Elementary Physical Education Practicum**

Observing/assisting/teaching in an elementary school setting. Includes weekly seminar which covers: academic learning time, student success rates, feedback, professional growth.

**Prerequisites & Notes:** PE 341, or concurrent.

**Credits:** 3

**Grade Mode:** Letter

### **PE 345 - Physical Education for Elementary School**

Physical activities in fundamental skill development, fitness, creative movement, rhythms and gymnastics for elementary age. Includes methods of teaching and developmental characteristics of children.

**Prerequisites & Notes:** Admission to Woodring College of Education; EDUC 301 or ELED 301 or SPED 301 or ELED 303.

**Credits:** 3

**Grade Mode:** Letter

### **PE 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **PE 440 - Block III: Middle School Physical Education Methods**

Course incorporates pedagogical principles, instructional methodology, planning and implementation of instructional programs for middle school level students. Curricular emphasis will focus upon skill acquisition and lead up to activities in the following areas: team building, loco-motor/fitness, striking w/hands & feet, rhythmic movements and recreational activities.

**Prerequisites & Notes:** PE 341P.

**Credits:** 5

**Grade Mode:** Letter

### **PE 440P - Middle School Physical Education Practicum**

Observing/assisting/teaching in a middle school setting. Includes weekly seminar which covers: characteristics of middle school students, research on effective teaching, developing routines, class management, skill progressions and sequencing, pre-assessment, unit planning, assessment.

**Prerequisites & Notes:** PE 341P; PE 440 or concurrent.

**Credits:** 3

**Grade Mode:** Letter

**PE 441 - Block IV: High School Physical Education Methods**

Course incorporates pedagogical principles, instructional methodology, planning and implementation of instructional programs for high school level students. Curricular emphasis will focus upon tactical games and lifetime fitness in the following areas: team building, multi-skill activities, group exercise, striking w/implements, rhythmic movements, content integration and recreational activities.

**Prerequisites & Notes:** PE 440P

**Credits:** 5

**Grade Mode:** Letter

**PE 441P - High School Health and Physical Education Practicum**

Observing/assisting/teaching health and physical education in a high school setting. Includes weekly seminar which covers characteristics of high school students, curriculum development for health and physical education, assessment and transitioning from student to student teacher.

**Prerequisites & Notes:** PE 440P

**Credits:** 3

**Grade Mode:** Letter

**PE 442P - Practicum in Physical Education**

Individualized practicum in teaching physical education activities. S/U grading.

**Prerequisites & Notes:** PE341P.

**Credits:** 2

**Grade Mode:** S/U

**PE 443 - Adapted Physical Education Methods & Practicum**

Course incorporates library research methods related to specific disabilities and APA research writing skills, pedagogical principles, instructional methods, and planning and implementation of instructional interventions for individuals with disabilities in the educational setting. Includes field based experiences working with adapted physical education/recreational settings.

**Prerequisites & Notes:** PE 341.

**Credits:** 3

**Grade Mode:** Letter

**PE 500 - Directed Independent Study**

An individualized course of study not available

through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## Recreation Courses

**RECR 105 - Challenge Facilitation I**

Course provides an overview of the theory and application of adventure based programming. Students will be introduced to safety practices, goal setting, framing and debriefing both group and individual challenge activities. Students will practice leading others in challenge learning activities. S/U grading.

**Credits:** 2

**Grade Mode:** S/U

**RECR 201 - Foundations of Recreation and Leisure**

Professional course dealing with the history, philosophy, present status, future goals, and challenges of leisure and the recreation service professions.

**Credits:** 4

**Grade Mode:** Letter

**RECR 271 - Introduction to Community Recreation and Leisure Services**

Community-based recreation service agencies: philosophies, functions, services, personnel and facilities. Emphasis on the diversity and inter-relatedness of community recreation service agencies.

**Prerequisites & Notes:** RECR 201

**Credits:** 3

**Grade Mode:** Letter

**RECR 272 - Introduction to Outdoor Recreation**

Introduction to the major professional components of the outdoor recreation field: interpretive services, camping, resource management, programming, private recreation and tourism. Focuses on trends, programs and related professional issues.

**Prerequisites & Notes:** RECR 201

## HEALTH AND HUMAN DEVELOPMENT

**Credits:** 3

**Grade Mode:** Letter

### **RECR 274 - Introduction to Therapeutic Recreation**

Introduction to the principles and practices of therapeutic recreation. Includes history, philosophy, and trends and issues. Also presents an overview of consumer groups associated with therapeutic recreation.

**Prerequisites & Notes:** RECR 201

**Credits:** 4

**Grade Mode:** Letter

### **RECR 275 - Professional Practicum and Seminar**

Career opportunities in leisure services investigated through organized visits to recreation and leisure agencies. Includes class meetings to explore professional development. S/U grading.

**Prerequisites & Notes:** RECR 201

**Credits:** 1

**Grade Mode:** S/U

### **RECR 276 - Introduction to Program Leadership**

Leading and processing recreation experiences in community, outdoor and therapeutic settings that promote individual and social well-being.

**Prerequisites & Notes:** RECR 201

**Credits:** 2

**Grade Mode:** Letter

### **RECR 279 - Introduction to Tourism**

Introduction to the major professional components of tourism: tour development, guiding, visitor services, resort management, and event planning. Also examines history of travel, types of travelers, motives of travel, niche markets, and current trends.

**Prerequisites & Notes:** RECR 201

**Credits:** 3

**Grade Mode:** Letter

### **RECR 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not

eligible for tuition waiver.

**Credits:** 1-15

### **RECR 301 - Work and Leisure Through the Ages**

A historical survey of the evolution of work and leisure from antiquity to the present, examining developments from social, cultural, political, and economic perspectives. The course also explores how work and leisure have affected societies throughout history. The central goal of the course is to use the past as a means for students to examine beliefs, values, and practices regarding work and leisure in the present and the future.

**Prerequisites & Notes:** any 100-level history class or PSY 101, SOC 221, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **RECR 370 - Outdoor Program Development**

Methods and techniques in the organization, implementation and evaluation of recreation programs in outdoor settings.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RECR 372 - Management of Recreation and Leisure Services**

Entry-level administrative skills associated with managing personnel and organizational resources within parks and recreation systems.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **RECR 373 - Recreation Programming**

Systems approach to programming methods for individual and group program planning in all parks and recreation settings.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RECR 376 - Therapeutic Recreation Program Design**

Methods and techniques in the organization, implementation and evaluation of recreation

programs for special populations: needs assessment, activity modification, adaptive equipment, physical and behavioral management and intervention techniques.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RECR 378 - Human Relations: Concepts and Skills**

Knowledge of human relations concepts and development of basic helping skills needed by individuals working in therapeutic relationships in outdoor, community, tourism, and institutional settings. Designed to meet certification requirements for therapeutic recreation.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RECR 379 - Foundations of Ecotourism**

Course will introduce students to the history, concepts, principles, marketing, and planning of ecotourism activities. The focus will be on tours and activities that promote cultural and environmental awareness, community empowerment, and local economic benefits. Emphasis will be on non-western cultures.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RECR 380 - Therapeutic Recreation Principles, Practices and Techniques**

Concentrated analysis of the process and practice of therapeutic recreation. Includes medical terminology, disabling conditions, adaptations, models of health care, rehabilitation techniques, and further examination of the foundations and development of therapeutic recreation. Includes one hour arranged.

**Prerequisites & Notes:** Phase I Recreation majors or appropriate experience; written permission.

**Credits:** 5

**Grade Mode:** Letter

### **RECR 385 - Leisure and Aging**

An overview of aging with respect to leisure services. Examines physical, social, psychological, economic and political aspects of aging as they

relate to designing recreation programs and leisure opportunities.

**Prerequisites & Notes:** RECR 201 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **RECR 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **RECR 421 - Therapeutic Recreation Trends and Issues**

Analysis of trends and issues affecting the profession of therapeutic recreation.

**Prerequisites & Notes:** Phase III Recreation majors or appropriate experience; written permission.

**Credits:** 3

**Grade Mode:** Letter

### **RECR 444 - Recreation Budgeting and Finance**

Principles and techniques of obtaining, budgeting and managing financial resources in parks and recreation agencies.

**Prerequisites & Notes:** Phase III Recreation majors or permission of Instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RECR 450 - Recreation Program Evaluation**

Quantitative and qualitative methods of program evaluation emphasizing experiential learning, questionnaire design and survey research, interviews, observations, and consensus techniques.

**Prerequisites & Notes:** Phase III Recreation majors or permission of Instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RECR 470 - Adventure-Based Programming**

Methods and techniques in the assessment, design, implementation and evaluation of adventure programs in enrichment and therapeutic

## HEALTH AND HUMAN DEVELOPMENT

recreation settings.

**Prerequisites & Notes:** Phase III Recreation majors or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **RECR 471 - Internship I**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** Phase II Recreation majors.

**Credits:** 3

**Grade Mode:** S/U

### **RECR 472 - Internship II**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel.

**Prerequisites & Notes:** Phase II Recreation Majors

**Credits:** 12

**Grade Mode:** S/U

### **RECR 473 - Internship III**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel.

**Prerequisites & Notes:** Phase II Recreation majors.

**Credits:** 15

**Grade Mode:** S/U

### **RECR 475 - Community Development and Leisure Services**

Principles and techniques of using community-driven assets-based models to focus on how recreation and leisure services form coalitions to serve marginalized communities. Case studies are used to examine barriers to and opportunities for community development.

**Prerequisites & Notes:** Phase III Recreation majors or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **RECR 479 - Ecotourism: Principles and Practices**

Provides an understanding of the principles and practices of ecotourism. Examines theory, practice, history, terminology and issues in ecotourism

planning and management. Emphasizes sustainable practices as they relate to traveler education, tour planning, and destination development.

**Prerequisites & Notes:** RECR 379 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **RECR 480 - Leisure and Society**

A senior capstone course that builds on general education and foundations of professional education. Goal is to synthesize diverse strands of theory and practice into an integrated understanding of recreation and leisure in modern society, with implications for professional service.

**Prerequisites & Notes:** Phase III Recreation majors.

**Credits:** 4

**Grade Mode:** Letter

# History

## Introduction

Without knowledge of the past, we are, as one writer has phrased it, like victims of collective amnesia groping in the dark for our identity. History as a discipline is rooted in that fundamental human urge, curiosity. It confronts and weighs the relative significance of chance, inevitability and choice in the passage of time.

History is humanistic in its emphasis on the influence of ideas and values, its capacity to both instruct and entertain, and as interpretive literature. In its investigation of social processes, groups and institutions, and the examination of human motivation, it is a social science. It acts as a bridge among disciplines, borrowing from all and contributing a sense of context and sequence to the perception of actions and individuals.

The American historian Carl Becker wrote: "The value of history is, indeed, not scientific but moral: by liberalizing the mind, by deepening the sympathies, by fortifying the will, it enables us to control, not society, but ourselves — a much more important thing; it prepares us to live more humanely in the present and to meet rather than to foretell the future."

## Faculty

**KEVIN A. LEONARD** (1997) Chair and Professor. BA, Pomona College; MA, PhD, University of California-Davis.

**CHARLES W. ANDERSON** (2014) Assistant Professor. BA, Oberlin College; MA, PhD, New York University.

**SUSAN E. COSTANZO** (1993) Associate Professor. BA, MA, PhD, Northwestern University.

**PETER D. DIEHL** (1992) Associate Professor. BA, Yale University; MA, PhD, University of California-Los Angeles.

**SUSAN AMANDA EURICH** (1986) Professor. BA, Portland State University; MA, PhD, Emory University.

**CHRISTOPHER C. FRIDAY** (1992) Professor. BA, Lewis and Clark College; MA, PhD, University of California-Los Angeles.

**STEVEN J. GARFINKLE** (2001) Professor. BA, Tufts University; MA, University of London; PhD, Columbia University.

**JARED R. HARDESTY** (2014) Assistant Professor. BA, Ohio Northern University; MA, PhD, Boston

College.

**RANDALL C. JIMERSON** (1994) Professor. BA, Earlham College; MA, PhD, University of Michigan.

**A. RICARDO LÓPEZ** (2008) Associate Professor. BA, National University of Colombia; MA, PhD, University of Maryland, College Park.

**JOHANN N. NEEM** (2004) Professor. BA, Brown University; MA, PhD, University of Virginia.

**JENNIFER SELTZ** (2012) Assistant Professor. BA, Brown University; MA, PhD, University of Washington.

**MART A. STEWART** (1992) Professor. BA, Willamette University; MA, Portland State University; PhD, Emory University.

**ROGER R. THOMPSON** (2003) Professor. BA, Stanford University; MA, PhD, Yale University.

**SARAH ZIMMERMAN** (2012) Assistant Professor. BA, Ohio University; MA, PhD, University of California-Berkeley.

## Affiliated Faculty

**KITTY FRIESEN**, Archives and Records Management.

**MARK I. GREENBERG**, Dean, Western Libraries.

**ROBERT H. KELLER**, Professor Emeritus. Fairhaven College of Interdisciplinary Studies.

**ANTHONY KURTZ**, University Archivist/Records Manager.

**RUTH STEELE**, Archivist. Center for the Pacific Northwest Studies.

**MIDORI TAKAGI**, Associate Professor. Fairhaven College of Interdisciplinary Studies.

## Other Departmental Information

### Mid-Program Checkpoint

A student seeking to complete a Bachelor of Arts degree in history within a four-year time span should have completed at least three courses from HIST 103, 104, 111, 112, 113, 121, 273, 274, 277, 278, 280, 281, 285, 286, 287 or EAST 201 or 202 by the start of the junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

### Graduate Study

For concentrations leading to the Master of Arts degree and for information concerning the archival training program, see the Graduate School section of this catalog.

# Bachelor of Arts

## History, BA

Department of History, College of Humanities and Social Sciences

### 60 Credits

### Introduction

Most students are required to study history in both elementary and secondary schools. At that level, students often are given the impression that the study of history simply requires memorization of names, dates, and other facts about events in the past. At the college level, however, the study of history facilitates the development of research, analytical, evaluative, and interpretive skills. History majors learn how to locate and access a wide range of sources, to analyze historical evidence, including textual and visual sources, to evaluate historical interpretations, and to develop and support their own interpretations. The quantity of writing and discussion required in history courses also helps students to develop effective communication skills.

### Why Consider a History Major?

If you like to read, write, and learn about the experiences of people in different places and times, you should consider the history major. No other major prepares students for as many different careers. History majors' strong communication skills are valued by all employers, including businesses and government agencies. The research, analytical, and evaluative skills that history majors develop prepare them for graduate study in many humanistic disciplines, public affairs, and library science and for careers as journalists, government officials, and attorneys. A growing number of history majors have made careers in the expanding field of public history. They work in museums, archives, and historical preservation.

Contact Information	
<b>Major Information and History Department Chair</b> Kevin Leonard Bond Hall 360 360-650-3041 Kevin.Leonard@wwu.edu	<b>Office Assistant</b> Willie Smith Bond Hall 364 360-650-7779 Willie.Smith@wwu.edu

**Sample Careers**  
Foreign Service Officer | Attorney | Government Official | Journalist | Business Manager | Social Studies Teacher | FBI/CIA Agent | Historical Consultant | Museum Professional | Government Historian | Librarian | Archivist | Cultural Resource Manager | Curator | Video/Media Producer | Historic Preservationist | Policy Advisor

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

There are no prerequisites for declaring a major in History. Students who have earned Advanced Placement or International Baccalaureate credit in history should not take the equivalent courses at Western. It is recommended that students who are considering a major in History take at least three introductory courses in History during their first year. These courses include HIST 103, 104, 111, 112, 113, 121, 123, 273, 274, 277, 278, 280, 281, 285, 286, 287, and EAST 201 and 202.

It is recommended that students contact a faculty advisor in the department as soon as they wish to declare a major in History.

### Grade Requirements

A minimum grade point average in history courses of 2.50 is required for graduation. No course with a grade of less than C- may be counted toward this major.



## Requirements

For this program history courses are grouped into the following fields:

- United States
- Europe
- East and South Asia
- Africa and Middle East
- Ancient
- Western Hemisphere (outside U.S.)

Credits to be distributed as follows:

- Three courses in one of the above fields, one of which must be an upper-division class
- Three courses in a second field, one of which must be an upper-division class
- Three courses in a third field, one of which must be an upper-division class
- HIST 499 - Historical Research (5 credits)
- Electives under advisement

**At least 30 of the 60 credits must be in upper division (300-400 level) courses.**

## Additional Requirements

The department recommends that majors take the maximum permissible number of history courses in the General University Requirements program. Further, history majors are encouraged to enroll in HIST 401 - Methods of Research and Analysis, which offers practical training in the tools of historical research. Students planning to declare a history major should do so at the earliest possible date.

It is strongly recommended that majors who elect a concentration in a field where languages other than English predominate take enough language study to become proficient in appropriate language(s). Students planning on graduate study in history are advised that many graduate schools require foreign language proficiency for admission.

## History/Social Studies, BA

Department of History, College of Humanities and Social Sciences

### 90 Credits

### Introduction

The History/Social Studies major is designed to prepare students to teach history and social studies in secondary schools. In their history courses, History/Social Studies majors learn how to locate and access a wide range of sources, to analyze historical evidence, including textual and visual sources, to evaluate historical interpretations, and to develop and support their own interpretations. The quantity of writing and discussion required in history courses also helps students to develop effective communication skills. The required courses in economics, geography, and political science are intended to prepare students to teach these subjects in middle and high schools.

### Why Consider a History/Social Studies Major?

If you want to teach history or social studies in a middle or high school, you should consider the History/Social Studies major. However, this major also prepares students for a wider range of careers. The knowledge students acquire and the skills they develop in their history courses and in courses in social sciences prepare them for law school, graduate programs in public policy and international affairs, and careers as journalists, government officials, and attorneys.

Secondary Education students who wish to be endorsed in Social Studies may choose this major. However, the History/Social Studies degree does not require that a student pursue a teaching certificate. History/Social Studies majors interested in Secondary certification must apply separately to the certification programs, such as those in Woodring College of Education. Students usually apply to Woodring in their senior year or after they graduate.

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To receive certification, students must also complete an approved teacher certification program. To receive a recommendation for state of Washington certification, students must complete the teacher certification program, including SEC 426, which is offered by the Department of Secondary Education as a part of 1) the undergraduate Bachelor of Arts degree, or 2) a post-baccalaureate program, or 3) the Masters in Teaching degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Completion of this combined major leads to an endorsement in social studies.

## Contact Information

### Major Information and History Department Chair

Kevin Leonard  
Bond Hall 360  
360-650-3041  
Kevin.Leonard@wwu.edu

### Office Assistant

Willie Smith  
Bond Hall 364  
360-650-7779  
Willie.Smith@wwu.edu

## Sample Careers

Social Studies Teacher | Politician/Attorney | Teacher | Government Official | Law Enforcement Officer | Historical Consultant | Museum Professional | Government Historian | Librarian | Archivist | Cultural Resource Manager | Curator | Video/Media Producer | Historic Preservationist | Policy Advisor

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

There are no prerequisites for declaring a major in History/Social Studies. Students who have earned Advanced Placement or International Baccalaureate credit in history should not take the equivalent courses at Western. It is recommended that students who are considering a major in History/Social Studies take at least three introductory courses in history during their first year. These courses include HIST 103, 104, 111, 112, 113, 121, 123, 273, 274, 277, 278, 280, 281, 285, 286, 287, and EAST 201 and 202.

It is recommended that students contact a faculty advisor in the department as soon as they wish to declare a major in History/Social Studies.

## Grade Requirements

No course with a grade of less than C (2.0) may be counted in this major. Students must achieve a GPA of at least 2.5 in the courses counted in the major. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

## Requirements

- ENVS 204 - Human Geography
  - One course from:
    - PLSC 101 - Government and Politics in the Modern World
    - PLSC 261 - Introduction to Political Theory
    - PLSC 271 - Introduction to International Relations
    - PLSC 291 - Introduction to Comparative Politics
  - PLSC 250 - The American Political System
  - One course from:
    - ECON 206 - Introduction to Microeconomics
    - ECON 446 - Economics for the Teacher (preferred)
  - One course from:
    - ECON 207 - Introduction to Macroeconomics
    - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
  - Additional credits in any of the above disciplines or anthropology, sociology or psychology to a total of at least 30 credits
- History credits should be distributed under advisement as follows:
- 2 courses in the history of the United States. One course must focus on the period before 1865 and the other must focus on the period since 1865.
  - 2 courses with an emphasis on the 600-1450 CE period. One course must focus on Europe and the other course must focus on East Asia, South Asia, Africa, and/or the Middle East.

- ❑ 2 courses with an emphasis on the period since 1450 CE. One course must focus on Europe, and the other course must focus on East Asia, South Asia, Africa, the Middle East, Canada, and/or Latin America.
- ❑ 2 courses in the history of the ancient world (prior to 600 CE), covering two different continents.
- ❑ HIST 391 - History of the Pacific Northwest
- ❑ HIST 499 - Historical Research
- ❑ Electives under advisement

**NOTE: At least 30 of the 60 history course credits must be at the upper-division level.**

To assure that competency requirements have been met, students should consult the department's approved list for courses for periods and geographical regions.

## Bachelor of Arts in Education

### History — Elementary, BAE

Department of History, College of Humanities and Social Sciences

#### 45 Credits

#### Introduction

The History-Elementary major is designed for students who plan to become elementary school teachers. In their history courses, History-Elementary majors learn how to locate and access a wide range of sources, to analyze historical evidence, including textual and visual sources, to evaluate historical interpretations, and to develop and support their own interpretations. The quantity of writing and discussion required in history courses also helps students to develop effective communication skills.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a History-Elementary Major?

If you want to teach in an elementary school and are interested in history, you should consider the History-Elementary major.

#### Contact Information

##### Major Information and History Department Chair

Kevin Leonard  
Bond Hall 360  
360-650-3041  
Kevin.Leonard@wwu.edu

##### Elementary Education Professional Program Information

Miller Hall 300  
360-650-3336  
<https://wce.wwu.edu/eled/elementary-education>

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

##### Office Assistant

Willie Smith  
Bond Hall 364  
360-650-7779  
Willie.Smith@wwu.edu

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<https://wce.wwu.edu/admission>

##### Elementary Education Program Manager

Miller Hall 301D  
360-650-7948

# HISTORY

## How to Declare (Admission and Declaration Process):

It is recommended that students contact a faculty advisor the department as soon as they wish to declare a major in History-Elementary.

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

A minimum grade point average in history courses of 2.50 is required for graduation. At least 15 of the credits must be in upper-division courses. No course with a grade of less than C (2.0) may be counted in this major.

## Requirements

- Two courses in United States history
- Two courses in European history
- Two courses from one of the following areas: East and South Asia; or Africa and Middle East; or Western Hemisphere (outside U.S.)
- HIST 391 - History of the Pacific Northwest
- Electives under advisement

## Additional Requirements

## Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

## Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

## Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

## Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

## Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators

MUS 398 - Integrated Arts for Elementary Educators

THTR 398 - Integrated Arts for Elementary Educators

One course from:

ART 380 - Art Educating the Child

DNC 433 - Creative Movement for Educators With Lab

MUS 361 - Music for Elementary Teachers

THTR 350 - Theatre for Youth

THTR 351 - Creative Pedagogy

ELED 425 - Social Studies for the Elementary School

ELED 470 - Developing Teaching

ELED 471 - Documenting Teaching

ELED 480 - Literacy: Beginning Communicators

ELED 481 - Literacy: Fluent Communicators

ELED 491 - September Experience

ELED 492 - Practicum: Experience in Literacy Methods

ELED 494 - Internship - Elementary

HLED 455 - Health Education Grades K-8

MATH 381 - Teaching K-8 Mathematics I

MATH 382 - Teaching K-8 Mathematics II

MATH 383 - Teaching K-8 Mathematics III

MATH 491 - Internship Seminar - Teaching K-8 Mathematics

PE 345 - Physical Education for Elementary School

SCED 480 - Science Methods and Curriculum for the Elementary School

SCED 490 - Laboratory/Field Experience in Elementary Science

## Master of Arts

### History, Archives and Records Management, Non-Thesis, MA

Department of History, College of Humanities and Social Sciences

#### Graduate Faculty

**Anderson, Charles W.**, PhD, Middle East

**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.

**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.

**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.

**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.

**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.

**Hardesty, Jared R.**, PhD, colonial America

**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.

**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.

**López, A. Ricardo**, PhD, Latin America.

**Neem, Johann N.**, PhD, Early U.S. Republic.

**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West.

**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.

**Thompson, Roger R.**, PhD, China.

**Zimmerman, Sarah**, PhD, Africa.

#### Affiliates

**Friesen, Kitty**, paper conservator, Archives.

**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.

**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

Program Advisor: Dr. Randall Jimerson, Bond Hall 324, 360-650-3139, Rand.Jimerson@wwu.edu

# HISTORY

## Goals

The Department of History offers a graduate program leading to the degree of Master of Arts in history with a certificate in archives and records management. The Graduate Program in Archives and Records Management (ARM) prepares students for professional careers in both archives and records management. The curriculum emphasizes the interdependence of these two disciplines, both of which are essential to the challenges of documenting and preserving essential evidence of modern organizations and individuals.

The program prepares students to: 1) enter a professional career as an archivist or records manager; 2) apply analytical skills to problem-solving and to evaluation of a broad range of record keeping needs within organizations; 3) enter doctoral programs or pursue other advanced academic training; and 4) assume positions as researchers, writers, teachers, or curators in a variety of public and private settings.

Grounded in the study of history, the program recognizes the value of historical knowledge and understanding as a basis for identifying and preserving records of enduring value to society. The curriculum integrates automation and electronic records with traditional methods for textual, audio, and visual records. Students examine basic principles of archives and records management, learn methods of selecting, organizing, and using recorded information, and gain practical work experience in applying these techniques through an extended internship. A required master's thesis provides opportunity for original research and writing. The purpose of this program is to prepare students for a career and to enable them to learn to think and function as professional archivists and/or records managers.

## Prerequisites

A baccalaureate degree from an accredited U.S. college or university, or an equivalent degree from a foreign university, or the permission of the department. Applicants with less than 25 credits in history or historical studies will be required to demonstrate knowledge of history and an ability to conduct historical research. For further information on admission requirements and procedures, contact the program director. Applicants with an advanced degree from an accredited institution are recommended, but not required, to submit GRE scores.

## Program Requirements (56 credits)

The ARM requires 56 credits and foreign language competence. Two years minimum are required to complete the program although some students may take longer.

- HIST 505 - Historical Theory and Method
- HIST 525 - History and Principles of Archives and Records Management
- HIST 530 - Arrangement and Description of Archives
- One course from:
  - HIST 526 - Selection and Appraisal
  - HIST 532 - Records and Information Management
- One course from:
  - HIST 528 - Reference, Access and Outreach
  - HIST 534 - Preservation of Archival Materials
- HIST 536 - Internship in Archives and Records Management
- HIST 538 - Advanced Seminar in Archives and Records Management
- HIST 539 - Research and Writing Seminar: Archives and Records Management
- Two graduate courses in history
- Elective course

## Additional Information

### Language Requirement

The foreign language requirement may be met in one of two ways: by passing an exam approved or administrated by the department; or by earning a B grade or higher in the last course of a second-year language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program. ARM master's students may demonstrate computer programming competence, in lieu of a foreign language, by completing a three course

sequence (e.g. CSCI 102, CSCI 202, MIS 314) with final course grade of B or better, or as approved by the history faculty.

### Internship

Students complete a 350-hour internship (HIST 536) at a cooperating archives or records management agency. This provides supervised practical experience in professional work. Internships have been available in recent years in governmental, academic, business, and historical organizations in the Pacific Northwest and throughout the U.S. and Canada. Selection of internships is based on individual needs and interests, in consultation with the program advisor.

### Electives

Electives, including courses in history, archives, records management, or another discipline related to the student's goals and interests, should be chosen in consultation with the program advisor.

### Research Seminar

A Research Seminar (HIST 539) is required. Topics may relate to any aspect of archives, records management, or information studies. The Research Seminar provides a structured framework for original research, writing, and revisions, typically covering three academic terms during the second year of graduate study. The result will be an original research article suitable for submission for publication, either in print or online.

## History, Archives and Records Management, Thesis, MA

Department of History, College of Humanities and Social Sciences

### Graduate Faculty

**Anderson, Charles W.**, PhD, Middle East.  
**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.  
**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.  
**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.  
**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.  
**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.  
**Hardesty, Jared R.**, PhD, colonial America.  
**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.  
**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.  
**López, A. Ricardo**, PhD, Latin America.  
**Neem, Johann N.**, PhD, Early U.S. Republic.  
**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West  
**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.  
**Thompson, Roger R.**, PhD, China.  
**Zimmerman, Sarah**, PhD, Africa.

### Affiliates

**Friesen, Kitty**, paper conservator, Archives.  
**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.  
**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

Program Advisor: Dr. Randall Jimerson, Bond Hall 324, 360-650-3139, Rand.Jimerson@wwu.edu

### Goals

The Department of History offers a graduate program leading to the degree of Master of Arts in history with a certificate in archives and records management. The Graduate Program in Archives and Records Management (ARM) prepares students for professional careers in both archives and records management. The curriculum

## HISTORY

emphasizes the interdependence of these two disciplines, both of which are essential to the challenges of documenting and preserving essential evidence of modern organizations and individuals.

The program prepares students to: 1) enter a professional career as an archivist or records manager; 2) apply analytical skills to problem-solving and to evaluation of a broad range of record keeping needs within organizations; 3) enter doctoral programs or pursue other advanced academic training; and 4) assume positions as researchers, writers, teachers, or curators in a variety of public and private settings.

Grounded in the study of history, the program recognizes the value of historical knowledge and understanding as a basis for identifying and preserving records of enduring value to society. The curriculum integrates automation and electronic records with traditional methods for textual, audio, and visual records. Students examine basic principles of archives and records management, learn methods of selecting, organizing, and using recorded information, and gain practical work experience in applying these techniques through an extended internship. A required master's thesis provides opportunity for original research and writing. The purpose of this program is to prepare students for a career and to enable them to learn to think and function as professional archivists and/or records managers.

### Prerequisites

A baccalaureate degree from an accredited U.S. college or university, or an equivalent degree from a foreign university, or the permission of the department. Applicants with less than 25 credits in history or historical studies will be required to demonstrate knowledge of history and an ability to conduct historical research. For further information on admission requirements and procedures, contact the program director. Applicants with an advanced degree from an accredited institution are recommended, but not required, to submit GRE scores.

### Program Requirements (56 credits)

The ARM requires 56 credits and foreign language competence. Two years minimum are required to complete the program although some students may take longer.

- HIST 505 - Historical Theory and Method
- HIST 525 - History and Principles of Archives and Records Management
- HIST 530 - Arrangement and Description of Archives
- One course from:
  - HIST 526 - Selection and Appraisal
  - HIST 532 - Records and Information Management
- One course from:
  - HIST 528 - Reference, Access and Outreach
  - HIST 534 - Preservation of Archival Materials
- HIST 536 - Internship in Archives and Records Management
- HIST 538 - Advanced Seminar in Archives and Records Management
- HIST 690 - Research and Writing Seminar: Thesis (12 credits)
- Two graduate courses in history (8)
- Elective course(s)

### Additional Information

#### Language Requirement

The foreign language requirement may be met in one of two ways: by passing an exam approved or administered by the department; or by earning a B grade or higher in the last course of a second-year language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program. ARM master's students may demonstrate computer programming competence, in lieu of a foreign language, by completing a three course sequence (e.g., CSCI 102, CSCI 202, MIS 314) with final course grade of B or better, or as approved by the history faculty.



## Internship

Students complete a 350-hour internship (HIST 536) at a cooperating archives or records management agency. This provides supervised practical experience in professional work. Internships have been available in recent years in governmental, academic, business, and historical organizations in the Pacific Northwest and throughout the U.S. and Canada. Selection of internships is based on individual needs and interests, in consultation with the program advisor.

## Electives

Electives, including courses in history, archives, records management, or another discipline related to the student's goals and interests, should be chosen in consultation with the program advisor.

## Research Thesis

A research thesis (HIST 690) is required. Topics may relate to any field of history.

## History, Non-Thesis, MA

Department of History, College of Humanities and Social Sciences

### Graduate Faculty

**Anderson, Charles W.**, PhD, Middle East.

**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.

**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.

**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.

**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.

**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.

**Hardesty, Jared R.**, PhD, colonial America.

**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.

**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.

**López, A. Ricardo**, PhD, Latin America

**Neem, Johann N.**, PhD, Early U.S. Republic.

**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West

**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.

**Thompson, Roger R.**, PhD, China.

**Zimmerman, Sarah**, PhD, Africa

### Affiliates

**Friesen, Kitty**, paper conservator, Archives.

**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.

**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

### Goals

The program prepares students to: 1) enter doctoral programs or pursue other advanced academic training in history; 2) teach at the secondary or community-college level, and 3) assume positions as researchers, writers, teachers and curators in a variety of public and private settings

### Prerequisites

Admission to graduate status and to graduate courses requires completion of an undergraduate major in history or the permission of the department. Applicants must also complete the general section of the Graduate Record Examination prior to admission to the program.

### Application Information

# HISTORY

**Admit Quarter:** Students are generally admitted only for the academic year, not summer.

**TA Deadlines:** April 1 for all program specializations.

## Supporting Materials:

- In addition to the Graduate School application requirements, all history applicants must submit a brief statement of purpose and goals, and a writing sample, such as a research paper or similar example of writing ability

## Program Requirements

**Non-Thesis: Basic Requirements 48 credits**

- HIST 505 - Historical Theory and Method (4)
- Three courses in one field and three courses in another, with no more than one 400-level course in each area (maximum 10 credits at the 400 level)  
Submission of three revised graduate seminar papers to a committee of three department faculty no later than week seven of the final term of study. Proposed revisions to be arranged with that committee no later than week seven in the term prior to the final term of study
- Completion of Language Requirement (see below)

## Additional Information

### Fields of Study

Fields of study fall into four broad areas:

- United States, Western Hemisphere (excluding USA), Europe, Africa and Middle East, Asia
- Ancient, Medieval, Early Modern, or Modern Periods
- Comparative History (consult with graduate advisor)
- Archives and Records Management.

Students who choose the non-thesis option are required to complete at least three courses in one field and three courses in another, with no more than one 400-level course in each as determined in consultation with the graduate advisor (maximum 10 credits at the 400 level).

### Electives

To complete a program in the Non-Thesis option electives may be chosen, in consultation with the graduate advisor from other seminars, readings courses, 400-level undergraduate courses (maximum of 10 credits) or HIST 500 (in rare cases, only with permission of the graduate advisor).

### Language Requirement

The foreign language requirement may be met in one of two ways: by passing an exam approved or administered by the department; or by earning a B grade or higher in the last course of a second-year language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program, or, where appropriate and with departmental permission, a demonstrated competence in mathematics, statistics, or appropriate computer programs/processes, as determined by advisor.

For further information, contact departmental office, Bond Hall 364, 360-650-3429.

## History, Thesis, MA

Department of History, College of Humanities and Social Sciences

## Graduate Faculty

**Anderson, Charles W.**, PhD, Middle East.

**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.

**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.

**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.

**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.

**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.

**Hardesty, Jared R.**, PhD, colonial America.

**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.

**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.

**López, A. Ricardo**, PhD, Latin America.

**Neem, Johann N.**, PhD, Early U.S. Republic.

**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West.

**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.

**Thompson, Roger R.**, PhD, China.

**Zimmerman, Sarah**, PhD, Africa.

## Affiliates

**Friesen, Kitty**, paper conservator, Archives.

**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.

**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

## Goals

The program prepares students to: 1) enter doctoral programs or pursue other advanced academic training in history; 2) teach at the secondary or community-college level, and 3) assume positions as researchers, writers, teachers and curators in a variety of public and private settings

## Prerequisites

Admission to graduate status and to graduate courses requires completion of an undergraduate major in history or the permission of the department. Applicants must also complete the general section of the Graduate Record Examination prior to admission to the program.

## Application Information

**Admit Quarter:** Students are generally admitted only for the academic year, not summer.

**TA Deadlines:** April 1 for all program specializations.

### Supporting Materials:

- In addition to the Graduate School application requirements, all history applicants must submit a brief statement of purpose and goals, and a writing sample, such as a research paper or similar example of writing ability

## Program Requirements

Thesis: Basic Requirements 45 credits

- HIST 505 - Historical Theory and Method (4)
- HIST 690 - Research and Writing Seminar: Thesis (12)
- A written thesis prospectus is a prerequisite for 690 registration
- Three courses in a primary field and two in a secondary field
- Elective courses to total minimum 45-credit requirement
- Completion of Language Requirement (see below)

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## Additional Information

### Fields of Study

Fields of study fall into four broad areas:

- United States, Western Hemisphere (excluding USA), Europe, Africa and Middle East, Asia
- Ancient, Medieval, Early Modern, or Modern Periods
- Comparative History (consult with graduate advisor)
- Archives and Records Management.

Students who choose the thesis option are required to complete at least three courses in a primary field and two courses in a secondary field, those fields to be determined in consultation with the graduate advisor and thesis committee chair.

### Electives

To complete the program in the Thesis option, electives may be chosen, in consultation with the graduate advisor from other seminars, readings courses, 400-level undergraduate courses (maximum of 10 credits) or HIST 500 (in rare cases, only with permission of the graduate advisor).

### Language Requirement

The foreign language requirement may be met in one of two ways: by passing an exam approved or administered by the department; or by earning a B grade or higher in the last course of a second-year language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program, or, where appropriate and with departmental permission, a demonstrated competence in mathematics, statistics, or appropriate computer programs/processes, as determined by advisor.

For further information, contact departmental office, Bond Hall 364, 360-650-3429.

## Minor

### Foreign Cultures Minor

Department of History, College of Humanities and Social Sciences

**25 credits\***

#### Introduction

The foreign cultures minor is designed to allow students who are studying French, Spanish, or Russian to deepen their knowledge of the histories of the places where these languages are spoken.

#### Why Consider a Foreign Cultures Minor?

If you are studying French, Spanish, or Russian, the foreign cultures minor will allow you to gain a deeper understanding of the histories of the parts of the world in which these languages are spoken. The minor will also allow you to develop your ability to analyze historical sources and your ability to communicate effectively in writing.

#### Contact Information

**History Department Chair and contact for information on Minor**

Kevin Leonard  
Bond Hall 360

360-650-3041

Kevin.Leonard@wwu.edu

Sample Careers

Foreign Service Officer | Attorney | Government Official | Journalist | Business Manager | FBI/CIA Agent

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)**How to Declare (Admission and Declaration Process):**

There are no prerequisites for declaring the foreign cultures minor. Students who have earned Advanced Placement or International Baccalaureate credit in history should not take the equivalent courses at Western. It is recommended that students contact a faculty advisor in the department as soon as they wish to declare the foreign cultures minor.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- Two courses in one of the following areas:

**France and the French-speaking world:**

- HIST 277 - Canada: A Historical Survey
- HIST 286 - African History, 1800-present
- HIST 341 - France 1500-1815
- HIST 342 - France 1815-1945
- HIST 359 - America and Vietnam
- HIST 376 - French Colonial Canada: 1534-1763
- HIST 478 - History of Nationalism in French Canada

**Latin America:**

- HIST 273 - Latin America: 1492-1824
- HIST 274 - Latin America: 1824 to the Present
- HIST 474 - U.S. Latin American Relations

**Russia:**

- HIST 333 - Imperial Russia: 1689-1917
- HIST 334 - 20th Century Russia

- HIST 364 - Film As History (in appropriate topic area)

- Electives under advisement

**Half must be in upper-division courses**

**History Minor**

Department of History, College of Humanities and Social Sciences

**25 Credits****Introduction**

Most students are required to study history in both elementary and secondary schools. At that level, students often are given the impression that the study of history simply requires memorization of names, dates, and other facts about events in the past. At the college level, however, the study of history facilitates the development of research, analytical, evaluative, and interpretive skills. History minors learn how to locate and access a wide range of sources, to analyze historical evidence, including textual and visual sources, to evaluate historical interpretations, and to develop and support their own interpretations. The quantity of writing and discussion required in history courses also helps students to develop effective communication skills.

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## Why Consider a History Minor?

If you are not a history major but like to read, write, and learn about the experiences of people in different places and times, you should consider the history minor. In addition to the knowledge and skills they acquire in their minors, history minors develop strong analytical, evaluative, and communication skills that are valued by all employers, including businesses and government agencies.

### Contact Information

#### Minor Information and History Department Chair

Kevin Leonard  
Bond Hall 360  
360-650-3041  
Kevin.Leonard@wwu.edu

### Sample Careers

Foreign Service Officer | Attorney | Museum Curator | Government Official | Journalist | Business Manager | FBI/CIA Agent | Librarian | Archivist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

There are no prerequisites for declaring the history minor. Students who have earned Advanced Placement or International Baccalaureate credit in history should not take the equivalent courses at Western. It is recommended that students contact a faculty advisor in the department as soon as they wish to declare the history minor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A minimum grade point average in history courses of 2.50 is required for graduation.

## Requirements

For this program history courses are grouped into the following fields:

- United States
- Europe
- East and South Asia
- Africa and Middle East
- Western Hemisphere (outside U.S.)
- Ancient

Credits should be distributed as follows:

- Two courses in one of the above fields
- Two courses in a second field
- Electives under advisement
- At least ten credits must be in upper-division courses

## Latin American Studies Minor

Combined minor offered by the Departments of History, Anthropology and Modern and Classical Languages, College of Humanities and Social Sciences

### 30 Credits

### Introduction

This program is offered so that students interested in Latin America may be able to build expertise by drawing on the separate courses in this area offered by the departments of this University.

A major in Latin American Studies is available through the student-faculty designed majors program (see the Liberal Studies section of this catalog).

For further information and advisement, consult the Department of Modern and Classical Languages, the Department of History or the Department of Anthropology.

### Why Consider a Latin American Studies Minor?

If you are interested in the literature, history, and cultures of Latin America, you should consider a Latin American Studies minor. This minor will help you to see the connections between your courses in Latin America literature, history, and anthropology. This minor is especially suitable for Spanish, anthropology, or history majors.

#### Contact Information

#### History Department Chair and contact for information on Minor

Kevin Leonard  
Bond Hall 360  
360-650-3041  
Kevin.Leonard@wwu.edu

#### Sample Careers

Foreign Service Officer | Attorney | Government Official | Journalist | Business Manager | FBI/CIA Agent

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

There are no prerequisites for declaring the Latin American Studies minor. Students who have earned Advanced Placement or International Baccalaureate credit in history should not take the equivalent courses at Western. It is recommended that students contact a faculty advisor in the department as soon as they wish to declare the Latin American Studies minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Two courses in Spanish above the 201 level
- 10 credits from:
  - HIST 273 - Latin America: 1492-1824
  - HIST 274 - Latin America: 1824 to the Present
  - ANTH 365 - Peoples of Latin America
- Remainder in courses relating to Latin America from any academic department, under advisement.

### Public History Minor

Department of History, College of Humanities and Social Sciences

#### 25 Credits

#### Introduction

Public History, also sometimes known as "applied history," includes the production and presentation of historical interpretations for the general public and for more specialized audiences. Many historical consultants, museum professionals, government historians, archivists, oral historians, cultural resource managers, curators, video and media producers, historic preservationists, policy advisors, and local historians consider themselves public historians. Unlike history teachers, who often work as individuals to design and

## HISTORY

deliver their courses, most public historians work in cooperation with community members and professionals from other disciplinary backgrounds.

### Why Consider a Public History Minor?

If you are interested in history but are not particularly interested in teaching, you should consider a public history minor. The public history minor can help to prepare you for a career as a historical consultant, museum professional, archivist, cultural resource manager, video and media producer, historic preservationist, or policy advisor.

#### Contact Information

#### Minor Information

Christopher Friday  
Bond Hall 326  
360-650-4862

#### Sample Careers

Historical Consultant | Museum Professional | Government Historian | Librarian | Archivist | Cultural Resource Manager | Curator | Video/Media Producer | Historic Preservationist | Policy Advisor

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

There are no prerequisites for declaring the Public History minor. It is recommended that students contact a faculty advisor as soon as they wish to declare the Public History minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- HIST 393 - Introduction to Public History
- HIST 494 - Public History Internship (repeatable to 10 credits)
  - 15-17 additional credits under advisement outside the department of the student's declared major (one methods course strongly recommended)

Courses taken for credit in these programs may not be counted toward the major.

## WWU Certificate (Non-Degree)

### Archives and Records Management Certificate Program

The department also offers a post-master's certificate in archives and records management to students who already possess an advanced degree from an accredited institution.

#### Application Information

Admissions: Those seeking the ARM certificate apply to the Graduate School as post-master's degree candidates. Applicants whose advanced degree is in a field other than history must take at least one history course in addition to certificate requirements (see below). Graduate Record Examination scores are recommended, but not required. See other application information for the History MA program.

#### ARM Certificate Requirements

ARM certificate students with an advanced degree in history must complete 24 credits.



- ❑ HIST 525 - History and Principles of Archives and Records Management
  - ❑ One course from:
    - HIST 530 - Arrangement and Description of Archives
    - HIST 532 - Records and Information Management
  - ❑ HIST 536 - Internship in Archives and Records Management
  - ❑ Two of the following:
    - HIST 526 - Selection and Appraisal
    - HIST 528 - Reference, Access and Outreach
    - HIST 530 - Arrangement and Description of Archives (4)
    - HIST 532 - Records and Information Management (4)
    - HIST 534 - Preservation of Archival Materials
    - HIST 538 - Advanced Seminar in Archives and Records Management
- ARM certificate students with an advanced degree in a field other than history must complete 24 credits, plus one additional history course at the 500 level (4 credits).

## History Courses

### **HIST 103 - Introduction to American Civilization: American History to 1865**

From ancient America to the end of the Civil War.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 104 - Introduction to American Civilization: American History Since 1865**

From the end of the Civil War to the present.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 111 - Introduction to Western Civilization: Prehistory to 476**

Survey of the political, social and cultural history of western civilization from prehistory to the collapse of the Roman empire.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 112 - Introduction to Western Civilization: 476-1713**

Human development in the Western world; emphasis upon ideas, institutions, forces and movements shaping contemporary life. Survey of the cultural, political, social and economic history of Europe from the early Middle Ages to the signing of the Treaty of Utrecht.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 113 - Introduction to Western Civilization: 1713-Present**

Human development in the Western world; emphasis upon ideas, institutions, forces and movements shaping contemporary life. Survey of the political, social, economic and diplomatic history of Europe from the opening of the Enlightenment to the present.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 121 - World History to 500**

Survey of major topics in World History from the origins of civilization to 500 AD.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 123 - World History, 1500 to the Present**

Survey of major topics in World History from 1500 to the present.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 131 - Going to College in America**

This course offers students an historical overview of the development of the American college and an exploration of current questions facing the future of college education.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 151 - Communities of the Ancient World**

Examines both the development of ideas of

# HISTORY

community in ancient world, and the ways in which the writing of histories of ancient communities affects the modern construction of identity. Involves analysis of primary documents from antiquity as well as discussions of the methods used in historical studies. We will focus on the related topics of the developments of civilization in Mesopotamia and Greece, and the transmission of ideas in the ancient world.

**Prerequisites & Notes:** Entering Freshman.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

## **HIST 152 - Being Human**

Introduces students to the core question of the humanities: what does it mean to be a human being? We will read a variety of authors from ancients to recent fiction. Throughout we will explore the meaning of human existence and its relation to education.

**Prerequisites & Notes:** First Year Students  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

## **HIST 158 - Race and Identity in Modern America**

Explores the ways in which race and identity have been formulated in American history and investigates the practice of history and its relationship to other disciplines. Involves examinations of primary documents as well as discussions of methods used in historical analysis. Topical coverage will span the last century and a half of American history.

**Prerequisites & Notes:** freshman standing  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **HIST 232 - History of the Jews**

An analysis of Jewish History and culture in medieval and modern Europe and in the classical and modern Middle East including the development of the modern state of Israel.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

## **HIST 262 - African American History to 1865**

The history of people of African descent in American and U.S. history from the beginnings of the trans-Atlantic Slave trade through the Civil

War.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **HIST 263 - African Americans Since 1865**

Introduces students to the experiences of African American women and men since the Civil War, with special emphasis on the Civil Rights and Black Power movements.

**Prerequisites & Notes:** HIST 104  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History**

Examines the experiences of lesbians, gay men, bisexuals, and transgendered people in U.S. history from the mid-nineteenth century to the present, with emphasis on identity and community formation and civil rights and liberation movements.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **HIST 268 - Introduction to Asian-American History**

Contributions Asian Americans have made to the development of the United States with emphasis on immigration, adaptation, settlement and their struggle for justice and equality.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **HIST 273 - Latin America: 1492-1824**

Political, economic and sociocultural trends from the Spanish conquest through the independence movements.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

## **HIST 274 - Latin America: 1824 to the Present**

Political, economic and sociocultural trends from the post-independence period to the 1990s.

**Credits:** 5

**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **HIST 275 - The Indian in American History**

Events and persons critical to history of North American Indians; review of interpretations of Indian cultures and history.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **HIST 277 - Canada: A Historical Survey**

Canadian history from aboriginal occupation to the present.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HIST 278 - Multiculturalism in Canada**

Historical development and current issues of multiculturalism in Canada through the lenses of immigration, acculturation, policies, critiques, and the lives of hosts and newcomers.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **HIST 280 - Introduction to East Asian Civilizations**

The origins and evolution of the political, economic and social aspects of East Asian civilizations through the early-modern period. Also offered as EAST 201.

**Prerequisites & Notes:** also offered as EAST 201  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **HIST 281 - East Asian History in the Early-Modern and Modern Eras**

Examines political, cultural and social aspects of East Asian civilizations in the early-modern and modern periods. Also offered as EAST 202.

**Prerequisites & Notes:** also offered as EAST 202  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **HIST 285 - African History to 1800**

An introduction to debates and topics concerning the early history of Africa. This course will highlight

the movement of people, ideas, and commodities, as well as the development of African political economy, states, and culture from antiquity to 1800.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **HIST 286 - African History, 1800-present**

This course focuses on Africa's history since 1800. The course will address the following major themes: emancipation, colonization, development, medicine, gender, tradition, nationalism, independence, neo-liberalism, poverty, and public health.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **HIST 287 - Introduction to Islamic Civilization**

A thematic approach to religious and cultural aspects of Middle Eastern society; the development of Islam as a body of religious thought and practice; and major cultural movements in the Middle East.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **HIST 288 - History of the Modern Middle East**

This class introduces students to the broad contours of Middle Eastern history since the eighteenth century. It covers the late Ottoman empire; European imperialism and colonialism; regional anti-colonialism, nationalism and decolonization; the Palestinian-Israeli conflict; the impact of the Cold War; the rise of Islamism; and postwar U.S. policy in the region.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **HIST 289 - Islam in France**

Examines Islamic-French interactions from the eighth century to the present with an emphasis on colonialism, secularization, immigration, and Islamic experience in post WWII France.

**Credits:** 5  
**Grade Mode:** Letter

### **HIST 290 - The Early Modern Atlantic World**

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This course examines the Atlantic system in an attempt to integrate the normally national histories of European, African, and American nation states. Topics in this course include maritime explorations, imperial expansion and colonization, the establishment of an Atlantic economy and the growth of merchant capitalism, European-Native American encounters and relations, slavery and the Transatlantic Slave Trade, piracy, the maturation of Euro-American colonial societies, and the Age of Revolution.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

## **HIST 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **HIST 310 - History of Ancient Mesopotamia**

Introduction to the culture and history of Mesopotamia from the dawn of civilization to the end of the Roman era. Emphasis on the civilizations of the Fertile Crescent, including the Sumerians, Babylonians, Assyrians, and Hittites.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or LBRL 121 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 311 - History of Ancient Egypt**

Introduction to the culture and history of ancient Egypt. Focus on reading and discussing both modern textbooks and translations of ancient texts to gain an understanding of the people behind the pharaohs and the pyramids.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or LBRL 121 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 312 - History of Ancient Greece**

Introduction to the culture and history of ancient Greece, including the Bronze Age Aegean. Explores ancient Greece from the beginnings of Minoan civilization on Crete through the rise of Alexander and the Hellenistic world.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or LBRL 121 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 313 - History of Ancient Rome**

The political and social development of Rome from village to republic to empire, including an exploration of the whole of the Roman world and its impact on the development of Mediterranean civilization.

**Prerequisites & Notes:** HIST 111 or HIST 121 or 151 or LBRL 121 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 314 - The American and European Enlightenment**

An intellectual and cultural exploration of the major ideas about human nature and society in the trans-Atlantic American and European Enlightenment.

**Prerequisites & Notes:** One of: HIST 103 or HIST 104 or HIST 111 or HIST 112 or HIST 113 or HIST 152 or HIST 363 or LBRL 123

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

## **HIST 315 - Europe in the Early Middle Ages: 300-1050**

Western Europe from late antiquity through the feudal era; particular attention to Roman-barbarian interchanges, Christianization and the rise, apogee and decline of the Carolingian empire.

**Prerequisites & Notes:** HIST 112 or LBRL 122 or instructor permission

**Credits:** 5

**Grade Mode:** Letter

## **HIST 316 - Europe in the High Middle Ages: 1050-1450**

Western Europe from c. 1050 to the end of the Middle Ages; focus on social, economic, religious and cultural developments.

**Prerequisites & Notes:** HIST 112 or LBRL 122 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 320 - War in the Middle Ages**

War and related phenomena (crusades, Peace of God, Truce of God, laws of war, etc) in medieval

Europe, with particular emphasis on the period from 1000-1450.

**Prerequisites & Notes:** HIST 112 or LBRL 122

**Credits:** 5

**Grade Mode:** Letter

### **HIST 321 - Reformation Europe and the Age of Religious Wars**

Surveys the social, cultural and political changes that occurred in Europe after the Reformation shattered Western Christendom and challenged many of the fundamental beliefs and practices of medieval society.

**Prerequisites & Notes:** HIST 112 or LBRL 122

**Credits:** 5

**Grade Mode:** Letter

### **HIST 330 - Germany in the 20th Century**

Advanced historical survey of Germany in the 20th century. Topics will include: World War I, the Weimar Republic, the rise of Naziism, World War II, the Holocaust, the Cold War, and the reunification of Germany.

**Prerequisites & Notes:** HIST 113 and junior status; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 331 - History of the Holocaust**

A historical survey of the origins, history, and impact of the Holocaust carried out by Nazi Germany in the 20th century.

**Prerequisites & Notes:** HIST 113 and junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 333 - Imperial Russia: 1689-1917**

Survey of major political, social and economic developments of Russia from Peter the Great to the fall of the Romanov dynasty.

**Prerequisites & Notes:** HIST 113 or HIST 123 or LBRL 123

**Credits:** 5

**Grade Mode:** Letter

### **HIST 334 - 20th Century Russia**

Russian history from 1900 to 2000; emphasis on continuity and change.

**Prerequisites & Notes:** HIST 113 or HIST 123 or LBRL 123

**Credits:** 5

**Grade Mode:** Letter

### **HIST 341 - France 1500-1815**

Analysis of the transformation of France from a multilingual, multicultural kingdom to centralized nation-state; special attention to competing religious confessions, family organization and the state, Louis XIV's policies and the French Revolution and the Napoleonic achievement.

**Prerequisites & Notes:** HIST 112 or HIST 113 or LBRL 122

**Credits:** 5

**Grade Mode:** Letter

### **HIST 342 - France 1815-1945**

Surveys the political, cultural and economic developments in France from the Napoleonic regime to the end of World War II.

**Prerequisites & Notes:** HIST 113

**Credits:** 5

**Grade Mode:** Letter

### **HIST 350 - American Colonial History**

The history of colonial settlements in North America from first contact to the beginnings of the imperial crisis that led to the War for American Independence.

**Prerequisites & Notes:** Sophomore or junior or senior status.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 352 - U.S. Civil War & Reconstruction**

Development of sectionalism; nationalism and the role of government; impact of war in North and South; slavery and emancipation; role of women; efforts toward reunion; the failure of Reconstruction.

**Prerequisites & Notes:** HIST 103 or HIST 104.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 353 - Latinas/os in the US West**

Examines Spanish colonization of the region that became the western United States, the Mexican social, political, and cultural order, the impact of U.S. conquest on Spanish-speaking people, the emergence of new ethnic and racial identities, and immigration from Mexico and Central America.

**Credits:** 5

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**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **HIST 354 - Energy in American History**

An exploration of the uses and meanings of energy in American history. Topics include development of and transitions between different energy regimes; relations between energy producers and communities; energy and American foreign policy; and social, cultural, and environmental changes linked to changing patterns of energy production and consumption.

**Prerequisites & Notes:** Sophomore status.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 355 - Health and Disease in American History**

Explores the history of health and disease in cultural, social, and political context over three hundred years of American history. Topics include the role of epidemics in national expansion and war; the rise of public health; race and disease; social movements and medical knowledge.

**Prerequisites & Notes:** Sophomore standing; HIST 103 or HIST 104, or permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 357 - The United States in the Cold War**

Examines the social, cultural, and political history of the United States and the role of the nation in world affairs during the Cold War (1945-1990).

**Prerequisites & Notes:** Sophomore status.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 359 - America and Vietnam**

This course will look at the relationship between the United States and Vietnam from 1945 to the present, and examine the role this relationship has played in cultural developments in both countries as well as the emergence of a transnational Vietnamese/American culture. It will provide students with an introduction to postcolonial theory, transnational history, ideas about collective memory, the history of the globalization of culture, and the history of the Vietnamese Diaspora.

**Prerequisites & Notes:** Instructor permission. The study abroad co-requisite for this course, HIST 3370, requires a trip to Vietnam.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

## **HIST 360 - History of Religion in Early America**

History of religious traditions, practices, ideas, and movements in America from colonial era to mid-nineteenth century.

**Prerequisites & Notes:** Sophomore or junior or senior status.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 361 - History of Religion in Modern America**

History of religious traditions, practices, ideas, and movements in America from mid-nineteenth century to the present day.

**Prerequisites & Notes:** Sophomore or junior or senior status.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 363 - The American Revolution**

This course will cover the causes and consequences of the American Revolution, as well as the experiences of Americans living through it.

**Prerequisites & Notes:** One of the following: HIST 103 or HIST 104 or HIST 111 or HIST 112 or HIST 113 or HIST 151 or HIST 155 or HIST 158 or HIST 273 or HIST 274 or HIST 277 or HIST 280 or HIST 285 or HIST 287 or instructor permission.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 364 - Film As History**

Readings and related films on selected historical topics; subject and course content varies with instructor. Repeatable with various topics.

**Prerequisites & Notes:** Established by each instructor. Consult Classfinder and/or Timetable of Classes before registering.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 365 - History of Sexuality in the United States**

Examines the changing definitions of sexuality from Ancient America to 1990's.

**Prerequisites & Notes:** Junior or senior status.  
**Credits:** 5  
**Grade Mode:** Letter

## **HIST 366 - The Early American Republic**

This course will introduce students to major themes concerning the development of the American republic following the Revolution until the 1840s.

**Prerequisites & Notes:** HIST 103 or HIST 104 or HIST 111 or HIST 112 or HIST 113 or HIST 121 or HIST 123 or HIST 151 or HIST 155 or HIST 158 or HIST 273 or HIST 274 or HIST 277 or HIST 280 or HIST 285 or HIST 286 or HIST 287 or LBRL 122 or LBRL 123 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 367 - US Women to 1865**

A survey of the changing social, economic and political roles of women in the United States from settlement through the Civil War.

**Prerequisites & Notes:** HIST 103 or HIST 104

**Credits:** 5

**Grade Mode:** Letter

### **HIST 368 - US Women from 1865**

A survey of the changing social, economic and political roles of women in the United States from the Civil War to the present.

**Prerequisites & Notes:** HIST 103 or HIST 104

**Credits:** 5

**Grade Mode:** Letter

### **HIST 369 - Women, Gender, & Sexuality in African History**

This course examines women, gender, and sexuality across topics like abolition, marriage, consumption, reproduction, health, and political leadership in recent African history.

**Prerequisites & Notes:** Sophomore status

**Credits:** 4

**Grade Mode:** Letter

### **HIST 370 - Chinese History to 600 Ad**

The evolution of early civilization and the first stage of high civilization in China to the Tang dynasty.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 372 - Chinese History: 1800 to Present**

China's development from the relative peace and prosperity of the late 18th century through the devastating wars and imperialist incursions of the 19th century to the struggle in the 20th century to create a modern nation-state and regain a position

of wealth and power in an often hostile world. Survey ends with the crushing of the pro-democracy movement at Tiananmen in 1989 and its consequences. Chinese materials in translation will help students explore how individuals experienced the major political, cultural, social and economic transformations of the past two centuries.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 374 - Premodern Japanese History**

A general survey tracing the development of Japan's unique civilization from its earliest beginnings through the first half of the 19th century. Japan's diverse artistic, religious and intellectual traditions will be presented in sociohistorical context. Topics include the creation/maintenance of Japan's distinct national identity in the face of cultural borrowing, the role of religion in Japanese society, a critical analysis of the Bushido Way of the Warrior ethic, and the importance of the Imperial Institution for Japanese unity.

**Prerequisites & Notes:** Sophomore or junior or senior status; HIST 280 or HIST 281 or EAST 201 or EAST 202 highly recommended; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 375 - Modern Japanese History**

Traces Japan's evolution into a 20th-century world power from the Meiji Restoration (1868 C.E.) to the late Showa period. Sociopolitical history is emphasized. Major topics include the nature of the Meiji Restoration itself; the forces affecting Japan's modernization; internal and external pressures upon the Japanese state (both pre- and post-war); the importance of Tennosei Emperor System; the impact of the Occupation; and Japan's role in the New World Order.

**Prerequisites & Notes:** Sophomore or junior or senior status; HIST 280 or HIST 281 or EAST 201 or EAST 202 highly recommended; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 376 - French Colonial Canada: 1534-1763**

A history of people and events making the social, cultural, political and economic structures of Canada under French colonial rule. Themes include colonialism, relationships with First Nations, religion, authority, social structures, gender, war

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and peace, and the nature of the Conquest.

**Prerequisites & Notes:** Sophomore or junior or senior status.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 377 - Japanese History Through Film**

Use of film to examine facets of the Japanese historical experience(s) in different periods. Lectures provide historical context for the films. The time frame extends from the Late Heian period [c. 12 century through the late 20th century].

**Prerequisites & Notes:** Junior or senior status

**Credits:** 5

**Grade Mode:** Letter

## **HIST 379 - Canadian American Relations**

Examination and impacts of significant developments in the political, diplomatic, economic, social and cultural relations between Canada and the United States.

**Prerequisites & Notes:** Sophomore or junior or senior status.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 380 - Food & Environment in America**

One of the best windows into the values and history of a society is an examination of the food the people eat – where it comes from and how it is produced, how it is processed and marketed, and how it is prepared and consumed. This class will examine food as both the subject and the object of historical analysis, and explore the history of food in America as a way to explain larger historical forces in the American past. It will pay particular attention to the relationship of food history and environmental history, and it will introduce students to environmental history as a field of historical inquiry.

**Prerequisites & Notes:** Junior status and one from: HIST 103, HIST 104, HIST 113, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 384 - Palestine, Zionism, and Israel**

This course provides an extensive introduction to the primary historical events and dynamics that have shaped the development of the Israeli-Palestinian conflict, from the era prior to the beginning of Zionist settlement in Palestine in 1882 to the present.

**Prerequisites & Notes:** Sophomore status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 385 - West African History**

The history of West Africa from 1500 to the present.

**Prerequisites & Notes:** sophomore standing

**Credits:** 5

**Grade Mode:** Letter

## **HIST 386 - Southern Africa**

Development of African and European societies in South Africa and neighboring states, their relations and conflicts.

**Prerequisites & Notes:** sophomore standing

**Credits:** 5

**Grade Mode:** Letter

## **HIST 390 - Topics in History**

Specialized topics in history. The subject of each individual course and its prerequisite will be announced in the Timetable of Classes. Repeatable with different topics.

**Prerequisites & Notes:** junior standing

**Credits:** 5

**Grade Mode:** Letter

## **HIST 391 - History of the Pacific Northwest**

Examines key themes and developments in the history of the Pacific Northwest from the eighteenth century until the present, with specific emphasis on Washington State. Required for certification of secondary school social studies teachers and for Elementary Education Studies majors.

**Prerequisites & Notes:** sophomore standing

**Credits:** 5

**Grade Mode:** Letter

## **HIST 393 - Introduction to Public History**

Introduction to concepts and issues inherent in public history as a preparation for understanding the uses of history beyond academe and/or the K-20 classroom.

**Credits:** 5

**Grade Mode:** Letter

## **HIST 400 - Directed Independent Study**

An individualized course of study not available



through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### **HIST 401 - Methods of Research and Analysis**

This course examines diverse primary and secondary sources and teaches students how to analyze them critically. Students also prepare for 499 by crafting a research proposal in their chosen field.

**Prerequisites & Notes:** 3 upper-division history courses.

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 405 - The Traditional Middle East**

From the 6th Century to 1800.

**Prerequisites & Notes:** Junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 406 - Middle East, 1800 to the Present**

From 1800 to the present.

**Prerequisites & Notes:** Junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 407 - History of the Israel/Palestinian Conflict**

Emergence of Israel and Palestinian national identities and competition for control of territory and state formation.

**Prerequisites & Notes:** Junior status; HIST 113 or LBRL 123 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

#### **HIST 408 - World War II: the European War**

Examines the causes and conduct-political, military and economic-of World War II in Europe and North Africa, 1939-1945, the great mid-20th century conflict between the Axis and Allied powers.

**Prerequisites & Notes:** Junior status

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 409 - World War II: the Pacific War**

This course addresses the major causes, campaigns, consequences, and historical controversies related to World War II in the Pacific.

**Prerequisites & Notes:** Junior Status.

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 410 - The First Cities: Urbanization in the Ancient World**

Survey of the emergence and development of cities in antiquity, and of daily life in those cities, from the first urban experiences in Mesopotamia through the Greek city-states and up to the imperial city of Rome.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or HIST 310 or HIST 311 or HIST 312 or HIST 313 or LBRL 121 or junior status.

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 412 - Ancient Rivers and Roads**

This course examines the related topics of commerce and communication in the ancient world. The first half of the course emphasizes the relationship between the natural environment (rivers) and the development of urban civilization. The second half of the course concentrates on human efforts (roads) to bring ancient communities together. We will consider how rivers, seas, and roads facilitated trade in goods and ideas throughout antiquity.

**Prerequisites & Notes:** Junior status and one from: HIST 111, HIST 121, HIST 151, LBRL 121, HIST 310, HIST 311, HIST 312, HIST 313, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 421 - Gender in Early Modern Europe**

A thematic study of gender, gender relations and sexual identity in Europe from 1300 to 1800.

**Prerequisites & Notes:** HIST 112. Recommended any 300-or 400-level HIST courses. Junior or senior status.

**Credits:** 5

**Grade Mode:** Letter

#### **HIST 447 - History of the Sciences of Nature**

Examines the historical roots and development of

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the sciences of nature in Europe and the United States, 1600-2000. Will combine history of science with social and cultural history. Will be most attentive to those developments that shaped the emergence of environmental sciences.

**Prerequisites & Notes:** HIST 103 or HIST 104 or HIST 113; junior standing

**Credits:** 5

**Grade Mode:** Letter

### **HIST 450 - Climate and Culture in America**

The course will look at significant episodes of what the historian Raymond Williams calls the 'human history' of nature and will explain that different communities and groups in American society have considered climate and weather differently at different times. These cultural articulations have reflected very real differences in relations with the physical environment, but also differences in social and political relations – some of which do more to obscure – and certainly to complicate -- than illuminate what is actually happening with the climate and the weather. A history of the relationship between climate, ideas about climate, and larger cultural developments in American culture will provide students an opportunity to do the kind of comparative and historical analysis that will contribute to an understanding of contemporary preoccupations with climate and climate change.

**Prerequisites & Notes:** Junior status and one from: HIST 103, HIST 104, HIST 113, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **HIST 452 - U.S. Intellectual History, 1776-1900**

This class will introduce students to major thinkers that shaped the development of the United States between the American Revolution and the turn of the 20th century. The course will ask students interpret the writings of American intellectuals in relation to each other and to their historical context.

**Prerequisites & Notes:** Junior or senior status

**Credits:** 5

**Grade Mode:** Letter

### **HIST 453 - U.S. Intellectual History, 1900-Present**

Introduction to major thinkers who shaped the development of the United States during the 20th century. Students will interpret the writings of American intellectuals in relation to each other and to their historical context.

**Prerequisites & Notes:** Junior or senior status

**Credits:** 5

**Grade Mode:** Letter

### **HIST 460 - American Environmental History**

History of the role and place of nature in American culture from the colonial era to the present, with some comparisons to significant and kindred human-nature interactions elsewhere. Will emphasize the history of cultural constructions of nature, on American perceptions and conceptions of nature, on the transnational character of many environmental problems and ideas, and on the environmental consequences of this.

**Prerequisites & Notes:** HIST 103 or HIST 104; junior standing

**Credits:** 5

**Grade Mode:** Letter

### **HIST 461 - US Urban History**

Examines the development of cities and suburbs in the United States, primarily since the Civil War; special attention to the importance of race, ethnicity and gender in the shaping of urban cultures.

**Prerequisites & Notes:** HIST 104; junior standing

**Credits:** 5

**Grade Mode:** Letter

### **HIST 462 - Industrialization and Reform: US 1865-1920**

Course examines the emergence of the US as a major industrial power in the late nineteenth century, the major cultural, political and social changes brought by industrialization. Course concludes by exploring the reform movements generated by industrialization and American participation in World War I.

**Prerequisites & Notes:** HIST 104 plus four additional credits in US history

**Credits:** 5

**Grade Mode:** Letter

### **HIST 464 - Saturday Night Live and the United States in the 1970s**

Examines the social, cultural, economic, and political history of the United States in the 1970s by focusing on the iconic television program Saturday Night Live, which premiered in the fall of 1975 and quickly became a cultural institution.

**Prerequisites & Notes:** HIST 104

**Credits:** 5

**Grade Mode:** Letter

**HIST 467 - Self and Society in 19th Century America**

Topics in American cultural history, late 18th to the late 19th century, that emphasize evolving and changing definitions of the 'self' in relationship to larger social and cultural change. Focuses on first-person accounts to explore race, ethnicity, gender, class, and other areas of identity, as they intertwine with larger cultural expectations and opportunities - and in interaction with some of the most important events in U.S. history in the 19th century.

**Prerequisites & Notes:** Junior status; HIST 103 or HIST 104; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**HIST 469 - African Slavery in the Atlantic World, 1450-1804**

This course examines African slavery in the Western Hemisphere between 1450 and 1804. Through readings, discussions, and multimedia presentations, it uses a transnational lens to compare and contrast various slave societies, while also looking at common themes.

**Prerequisites & Notes:** Sophomore status and one from: HIST 103, HIST 112, HIST 113 or HIST 123.

**Credits:** 5

**Grade Mode:** Letter

**HIST 470 - World History of Democracy, 19th and 20th Centuries**

This seminar reflects upon the ways in which different historical actors have shaped the meanings and practices of democracy since the late 18th century in a variety of geographical locations across the world.

**Prerequisites & Notes:** HIST 123 or HIST 274 or HIST 428

**Credits:** 5

**Grade Mode:** Letter

**HIST 474 - U.S. Latin American Relations**

This course explores the political, economic, social and cultural repercussions of the US-Latin American relations from the mid-19th century to the present.

**Prerequisites & Notes:** HIST 123 or HIST 274 or HIST 428 or instructor's permission.

**Credits:** 5

**Grade Mode:** Letter

**HIST 475 - Topics in American Indian History**

The close, careful examination of historical evidence and scholarly investigations of American Indian History since c. 1850. Repeatable with different topics up to 10 credits including original course.

**Prerequisites & Notes:** One from: HIST 104, HIST 275, HIST 391, AMST 202, AMST 301, AMST 315, ANTH 361 or ANTH 462; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**HIST 476 - World Histories of the Middle Class since the 19th century**

This reading seminar reflects upon the ways in which middle class people have shaped - and have been shaped by - the making of modern societies since the late 19th century in a variety of geographical locations across the world.

**Prerequisites & Notes:** HIST 123 or HIST 274 or HIST 428 or permission of instructor

**Credits:** 5

**Grade Mode:** Letter

**HIST 477 - World War I & Canadian Society**

An examination and interrogation of the transformative power of Canada's first modern war upon her social, cultural, and national development, with special attention to gender, class, ethnicity, crisis in French-English relations, nationalist ideologies, cultures of war, and construction of collective memory.

**Prerequisites & Notes:** HIST 277 or permission of instructor and junior status.

**Credits:** 5

**Grade Mode:** Letter

**HIST 478 - History of Nationalism in French Canada**

Historical development of nationalism in French Canada from the 1837-38 Patriot Rebellion and development of the Metis nation through the 1970 FLQ terrorist crisis to the present Quebec sovereigntist movement for independence.

**Credits:** 5

**Grade Mode:** Letter

**HIST 479 - Medieval and Early-Modern Chinese History**

A comprehensive exploration of key themes and topics in the social, cultural, economic, and political histories of medieval and early-modern China (roughly the thousand years spanning the sixth to sixteenth centuries).

# HISTORY

**Prerequisites & Notes:** HIST 371 or HIST 280 or EAST 201.

**Credits:** 5

**Grade Mode:** Letter

## HIST 480 - Modern Chinese Social History

A comprehensive exploration of key themes and topics in the social, cultural, economic, and political histories of late-imperial and modern China. Long-term processes such as China's interaction with the West, the demise of the imperial system and the creation of a Western-influenced structure of government, the globalization of the economy, the rise of a Western-oriented bourgeoisie, and an agrarian crisis form the backdrop to the Opium Wars, the Taiping Rebellion, the Boxer Uprising, the 1911 Revolution, the Chinese Renaissance, and the rise of the Nationalist and Communist parties.

**Prerequisites & Notes:** HIST 281 or HIST 372 or EAST 202.

**Credits:** 5

**Grade Mode:** Letter

## HIST 481 - The Chinese Revolution

Explores key passages in China's long revolutionary struggle, beginning with Sun Yat-sen and the 1911 Revolution and ending with the pro-democracy movement and events at Tiananmen in 1989. The May 4th Movement, Chiang Kai-shek's National Revolution of 1925-27, Mao Zedong's peasant-based Communist revolution, and the Cultural Revolution are among the events to be explored from social and cultural, as well as political, perspectives. First-person accounts such as Edgar Snow's *Red Star Over China*, primary documents, classic and revisionist Western accounts, Chinese literature in translation, and films like 'Yellow Earth' and 'Farewell, My Concubine' will be among the materials that students will use to explore this vast and still-controversial topic.

**Prerequisites & Notes:** HIST 372 or HIST 281 or EAST 202.

**Credits:** 5

**Grade Mode:** Letter

## HIST 483 - Early Modern Japan

This course investigates the Edo period in depth by looking at Tokugawa society. Daily life as well as legal codes, official dogma and ideologies are examined. Topics include Tokugawa religions and politics, popular culture, Western Studies, Tokugawa social structure, education, womens political involvement, Bushido, the family, art and literature, science, and the economic sphere.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## HIST 484 - Women in Japanese History

Examines the diverse roles and fluctuating status of Japanese women from the beginnings of history to modern times. Possible topics: women and Japanese religions, womens political involvement, education and indoctrination, family roles, Japanese feminism, contributions to art and literature, and economic roles.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## HIST 485 - Japanese Military History: Samurai Fact and Fiction

Evolution and influence of Japans' military from the beginnings of history to modern times. Dispels popular misconceptions about Japanese warriors and Japan's martial traditions, and addresses military realities as well as formal ideologies. Topics include: the evolution of the military class, important battles, translated war tales (gunki monogatari), the evolution of military skills and technology, the military's political involvement over time, the myth of Bushido, martial traditions cultural contributions and influences, and the relationship between Japan's religious and martial spheres.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## HIST 486 - Religion in Japanese History

An examination of the symbiotic relationship between state and religion throughout Japanese history. Although basic doctrines will be considered, emphasis of the course will be sociopolitical rather than metaphysical. Examples of topics: the formation of the Shinto tradition, Millenarianism, Buddhist institutions and temporal power, women and evolving religious tenets, European missionaries and Sengoku politics, Yasukunijnja and modern politics, and the religio-political nature of the Imperial institution.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**HIST 488 - Modern Egypt, Libya and the Nile Valley**

The emergence of modern states in Northeast Africa including Egypt, Libya, the Sudan, Ethiopia and Somalia in an age of imperialism and nationalism.

**Prerequisites & Notes:** junior standing

**Credits:** 5

**Grade Mode:** Letter

**HIST 490 - Advanced Topics in History**

In-depth reading in primary and secondary literature on a particular historical problem or topic. Topics will vary. Repeatable with different topics.

**Prerequisites & Notes:** Junior or senior status.

Recommended: any 100, 200, 300, 400 level History courses.

**Credits:** 5

**Grade Mode:** Letter

**HIST 494 - Public History Internship**

Internship at an approved location such as, but not limited to, as historical society, museum, archives, library, government agency, or history or related journal or press. In certain instances could include the development of public history projects for corporations or individuals as well as fieldwork in approved areas. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** HIST 493 - Public History Seminar and/or permission of Faculty Liaison.

**Credits:** 3-5

**Grade Mode:** Letter

**HIST 498 - Editing History Writings for the Profession**

Introduction to participation in professional conferences and publishing through the preparation and editing of conference papers for presentation and potential publication. S/U grading.

**Prerequisites & Notes:** History Majors, History Minors, or Graduate Status in History.

**Credits:** 2

**Grade Mode:** S/U

**HIST 499 - Historical Research**

Research and writing of a formal paper on a topic developed by the student. Students normally work under an instructor within the field of their choice. Limited to declared history majors with junior status. Also offered as EAST 302 (selected sections

only). Departmental pre-registration is required and occurs each spring. Writing proficiency course.

**Prerequisites & Notes:** One upper-division course in field of topic.

**Credits:** 5

**Grade Mode:** Letter

**HIST 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**HIST 505 - Historical Theory and Method**

A survey of current historical practice, including quantitative methods, deconstruction, economic history, comparative history, and intellectual and cultural history. Readings in current practice and papers are expected of students.

**Credits:** 4

**Grade Mode:** Letter

**HIST 512 - The Ancient World**

Selected topics in ancient history and the historiography of the ancient world. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** One upper level course in ancient history or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**HIST 515 - Medieval History**

Selected studies from the Fall of Rome to the late Middle Ages. Repeatable.

**Prerequisites & Notes:** One upper level course in medieval history or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**HIST 520 - Renaissance and Reformation**

Readings in the history of Europe from 1337-1848. Repeatable.

**Credits:** 4

**Grade Mode:** Letter

## HISTORY

### **HIST 525 - History and Principles of Archives and Records Management**

An overview of the characteristics and uses of records and archival materials, and of the historical development, essential principles, and major functions of the archives and records management professions.

**Credits:** 4  
**Grade Mode:** Letter

### **HIST 526 - Selection and Appraisal**

Examination of theory and methodology of archival collecting policies, selection, acquisitions, and appraisal of archival records.

**Prerequisites & Notes:** HIST 525  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 528 - Reference, Access and Outreach**

Examination of theory and methodology of archival access policies, reference services, outreach, and public advocacy.

**Prerequisites & Notes:** HIST 525  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 530 - Arrangement and Description of Archives**

Detailed examination of archival arrangement and description systems, including both manual and automated applications, the USMARC cataloging format, Encoded Archival Description and other access systems.

**Prerequisites & Notes:** HIST 525.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 532 - Records and Information Management**

Detailed examination of principles, methodology and current issues in managing records in office information systems, including requirements for managing electronic records and for developing and applying automated techniques.

**Prerequisites & Notes:** HIST 525  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 534 - Preservation of Archival Materials**

Examination of issues in managing a preservation, conservation and disaster preparedness program

for archives; and lectures, demonstrations and practical exercises in the conservation and repair of archival media.

**Prerequisites & Notes:** HIST 525  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 536 - Internship in Archives and Records Management**

Professional internship in a cooperating agency or organization. S/U grading.

**Prerequisites & Notes:** HIST 530 or HIST 532.  
**Credits:** 8  
**Grade Mode:** S/U

### **HIST 538 - Advanced Seminar in Archives and Records Management**

Readings in selected aspects of archives administration and the management of current records and information systems.

**Prerequisites & Notes:** HIST 536 or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 539 - Research and Writing Seminar: Archives and Records Management**

Original research on a topic in Archives and Records Management, including use of primary sources and/or original survey research; interpretation and analysis; and writing an original essay suitable for publication, either for a print journal or online journal/web publication forum. Year-long course, 4 credits for each of 3 academic terms. Repeatable to a maximum of 12 credits including original course.

**Prerequisites & Notes:** Instructor permission  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 540 - Modern European History**

Selected topics in European history and historiography since the sixteenth century. Repeatable with different topics.

**Prerequisites & Notes:** Graduate status.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 546 - World's Fairs and Other Spectacles**

An examination into the commercial, political, and cultural dimensions of mass-attended spectacles in

the modern world with a special focus on the relations between developed and underdeveloped peoples, both indigenous and foreign. Readings focus on theories of material culture; selections from scholarly work on the meaning of 'spectacle' and scholarly popular studies of World's Fairs, Olympics, and other 'meta-events.' A research paper, focusing on Third World, European or American fields is required.

**Credits:** 4  
**Grade Mode:** Letter

### **HIST 550 - Colonial American History**

Selected topics in American colonial history through the mid-18th century. Repeatable to a maximum of 12 credits.

**Prerequisites & Notes:** Graduate status and permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 551 - Early American Republic: 1783-1840**

This course will introduce students to major readings and issues in the historiography of the Early American Republic.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 553 - American Environmental History**

Readings seminar focusing on the literature on the history of the interaction of nature and society in America. Concentration on methods in environmental history. Also offered as ENVS 545.

**Prerequisites & Notes:** Graduate status in history or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 554 - World Environmental History**

The organizing theme of this seminar will be that of 'exchange' - biological and cultural - of organisms and ideas about what to do with them. By focusing on the problem of the history of 'exchanges' of organisms and ideas about the environment around the globe, the seminar will at the same time illuminate other themes in world environmental history. Also offered as ENVS 546.

**Credits:** 4  
**Grade Mode:** Letter

### **HIST 555 - US Women's History**

Selected readings in US women's history.

**Credits:** 4  
**Grade Mode:** Letter

### **HIST 556 - Topics in Latin American History**

Selected readings in Latin American history. Repeatable.

**Prerequisites & Notes:** Graduate status.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 557 - The American Revolution**

This course will introduce students to changing interpretations of the American Revolution. In the process, students will be exposed to broader changes in the historical profession. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 558 - 20th-Century American History**

Topics in 20th-century American history.

**Prerequisites & Notes:** undergraduate preparation in American history or instructor permission  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 559 - Topics in American Religious History**

Selected topics in the history of religion in America from the colonial period through the 20th century. Repeatable to 12 credits.

**Prerequisites & Notes:** Graduate status or instructor permission  
**Credits:** 4  
**Grade Mode:** Letter

### **HIST 560 - Readings in North American Indian History**

Readings on the history and historiography of Native North America.

**Prerequisites & Notes:** Graduate status.  
**Credits:** 4  
**Grade Mode:** Letter

# HISTORY

## **HIST 571 - Culture and Identity in Canadian History**

Examination of the constructions and meanings of various Canadian identities and their cultural origins and expressions, emphasizing their historical and historiographical significance.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

## **HIST 582 - Topics in East Asian History**

Selected topics in the history and historiography of China and/or Japan in the traditional and/or modern periods. Repeatable under advisement.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

## **HIST 583 - Topics in African History**

This reading seminar will provide masters' students with an introduction to a variety of historical themes and debates concerning African history.

**Prerequisites & Notes:** Graduate student status.

**Credits:** 4

**Grade Mode:** Letter

## **HIST 584 - Japanese Women's History**

This course examines the diverse roles and fluctuating status of Japanese women from the beginnings of history up to modern times. Topics may include: women and Japanese religions (Buddhism, Shintō, Shugendō, New Religions), women's political involvement, education and indoctrination, family roles, Japanese Feminism, contributions to art and literature, and economic sphere. This is a seminar course; students who do not possess any basic Japanese Studies background are expected to correct this knowledge deficit on their own.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

## **HIST 585 - Japanese Military History**

An examination of diverse aspects of Japanese Military History from the beginning up to modern times. Possible areas of inquiry include warriors/soldiers, individual battles, technology, religions, political involvement, myth of Bushidō and its inculcation, cultural contributions, and economic roles. This is a seminar course that

builds upon a basic knowledge of a non-Western socio-historical culture; students should be prepared to correct any elementary knowledge deficit on their own. Students are expected to perform as well as those who have a background in Japanese Studies.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

## **HIST 586 - Japan's Asia-Pacific War(s)**

An in-depth research seminar that examines Japan's reasons for, and the results of, its post-1868 military conflicts up through 1945. The course particularly focuses on the domestic and international impact of the Asia-Pacific War(s), which began in the 1930s.

**Prerequisites & Notes:** Graduate student status.

**Credits:** 4

**Grade Mode:** Letter

## **HIST 587 - Seminar in Middle Eastern History**

Topics in Middle Eastern history.

**Prerequisites & Notes:** undergraduate preparation in Middle-East history or instructor permission

**Credits:** 4

**Grade Mode:** Letter

## **HIST 590 - Directed Historical Research**

Directed research in historical topics by arrangement with the instructor. Counts as a writing seminar and may be repeated once with a different topic.

**Prerequisites & Notes:** Enrollment limited to non-thesis MA students

**Credits:** 4

**Grade Mode:** Letter

## **HIST 690 - Research and Writing Seminar: Thesis**

Original research, including use of primary source materials and bibliographic aids, interpretation and/or textual criticism, and writing an original research thesis. May require a knowledge of auxiliary sciences, a foreign language, or the use of statistics or computer programming, depending on the topic of the research. Repeatable to a maximum of 12 credits.

**Credits:** 2-12

**Grade Mode:** Letter



# Journalism

## Introduction

The journalism department offers a degree program, the Bachelor of Arts, and also maintains a commitment to the liberal arts tradition by offering courses in support of the General University Requirements (GURs) and other departments.

Journalism majors and minors pursue theoretical and practical communication studies in a liberal arts setting. Students of journalism gain practical experience on Western's award-winning student media, and majors additionally take field internships with newspapers, magazines, broadcast stations, public relations agencies and other professional organizations.

Courses in the news-editorial sequence emphasize the gathering, writing and ethical presentation of news. Understanding news processes and learning to report with accuracy, clarity and precision prepares graduates to communicate swiftly and lucidly in a changing world.

Courses in the public relations sequence follow the news-editorial emphasis, adding communication skills important for careers in this rapidly growing field.

Courses in the visual journalism sequence prepare students in the concepts, professional practices and course work applications of visual components of news: photojournalism, information graphics, video and audio clips, mapping and typography.

A combined major, environmental studies/journalism, is currently in moratorium, and has been offered in cooperation with Huxley College of the Environment.

Students are challenged to explore a range of other disciplines and to seek depth in one or more specialized areas through concentrations, major-minor combinations or even double majors.

Graduates find careers in newspapers, magazines, radio, television, publishing, advertising, public relations, teaching, and throughout government and industry wherever communications skills, with general knowledge, are vital.

Because enrollment in the journalism department is limited, students considering a major should consult a journalism advisor before embarking on classes beyond JOUR 190 and JOUR 207.

## Faculty

**JENNIFER KELLER** (2007) Chair and Associate Professor. BA, Kenyon College; MA, Salisbury State University; MA, Syracuse University.

**BRIAN J. BOWE** (2015) Assistant Professor. BA and MS, Grand Valley State University; PhD, Michigan State University.

**JOE GOSEN** (2014) Assistant Professor. BA, San Jose State University; MA, University of Nevada, Reno.

**JOHN M. HARRIS** (1998) Associate Professor. BA, Wittenberg University; MS, University of Oregon; PhD, University of Washington.

**MARIA MCLEOD** (2012) Assistant Professor. BS, Eastern Michigan University; MFA, University of Pittsburgh.

**DEREK MOSCATO** (2016) Assistant Professor. BA, University of Western Ontario; MS, University of Kansas.

**CAROLYN NIELSEN** (2008) Associate Professor. BS, California Polytechnic State University; MSJ Northwestern University.

**PEGGY WATT** (2004) Associate Professor. BA, Western Washington University; MLA, Stanford University.

**SHEILA WEBB** (2008) Associate Professor. BA, University of Michigan; MA's, University of Wisconsin; PhD, University of Wisconsin.

## Declaration of Major

The Department of Journalism offers three sequences leading to a Bachelor of Arts degree: a news-editorial sequence, a public relations sequence and a visual journalism sequence.

Students seeking admission to the major should see a member of the journalism faculty for advising and obtain a copy of admission requirements. Admission to the department and to specific courses may be limited.

Students seeking admission to the major must meet the following conditions:

- Have at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better (transfer students must meet the same requirement for any course accepted as an equivalent of JOUR 207)
- Complete with a B- or better one journalism staff course
- Submit a letter of application (in correct letter format)
  - The letter of application should demonstrate in style and grammar the student's understanding of writing and AP style. It should also include the following:
    - A discussion of what brought the student to the journalism major, with

particular emphasis on why the student chose that specific track (News-Ed, PR, VJ). What does the student hope to do with that degree upon graduation?

- An analysis of how the student's performance in journalism classes and publications demonstrates appropriate aptitude for the field.
  - A discussion of the importance of ethics in journalism and the student's specific track. Why is it important for students to understand ethics prior to beginning an internship or a job? How will the student strive to uphold the ethical code of that particular industry?
  - A detailed explanation of any areas that might stand out in review of the student's files such as failing certain journalism courses, low GPA, etc.
- The letter will be judged based on style and content, including how well the student speaks to the above areas,

particularly interest in the major, aptitude and ethics.

Majors must maintain a 2.50 grade point average both overall and in journalism courses. Students below that average for two consecutive quarters will be placed on probation; a third consecutive quarter will result in removal from the major. In addition, academic dishonesty issues in journalism courses may result in dismissal from the major, depending on severity.

For additional details on admission to the major, consult the department manager or any journalism faculty member.

## Other Departmental Information

### Mid-Program Checkpoint

Students seeking to complete a BA degree in journalism within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- JOUR 190
- JOUR 207
- ENG 101
- 100- and 200-level GURs

## Bachelor of Arts

### Environmental Studies/Journalism, BA (In Moratorium)

Combined major offered by the Department of Journalism, College of Humanities and Social Sciences and the Department of Environmental Studies, Huxley College of the Environment.

#### 120-126 credits (preparatory courses and major)

This program is not currently accepting new students.

For further information contact the Department of Environmental Studies, Western Washington University, 516 High Street, Bellingham, WA 98225-9085, Phone: 360-650-3277, Email: Diane.Knutson@wwu.edu OR contact the Department of Journalism, Western Washington University, 516 High Street, Bellingham, WA 98225-9197, Phone: 360-650-4436, Email: Alexis.Tahiri@wwu.edu.

### Introduction

Students wishing to complete an Environmental Studies major in four years should complete all GUR requirements in their first two years. Prospective environmental science majors are strongly advised to take additional preparatory course work that provides a strong background in chemistry, biology and mathematics. The preparatory courses listed below may be used to fulfill both Huxley College and GUR requirements.

#### Contact Information

**Journalism Department Chair**  
Jennifer Keller

**Environmental Studies Department Chair**  
Gigi Berardi

Communications Facility 253  
360-650-4987  
Jennifer.Keller@wwu.edu

Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

## Requirements

### Preparatory Courses (36-42 credits)

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 203 - Physical Geography
- One course from:
  - MATH 114 - Precalculus I or equivalent or higher
  - MATH 156 - Algebra With Applications to Business and Economics
- Any BCOM and CCOM GUR requirement course
- Any PLSC course
- Additional Lab Science course in BIOL, CHEM, GEOL or PHYS
- One Introductory Statistics course from:
  - ANTH 335 - Quantitative Methods in Anthropology
  - DSCI 205 - Business Statistics
  - FAIR 232P - User-Friendly Statistics
  - MATH 240 - Introduction to Statistics

### Major (84 credits)

- ENVS 412 - Environmental Journalism
- ENVS 413 - The Planet Staff
- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting completed with a grade of B- or better
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 350 - Mass Media Law
- JOUR 430 - Field Internship
- JOUR 450 - Advanced Reporting
- JOUR 480 - Senior Seminar
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment
- One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture

# JOURNALISM

- ENVS 430 - Borderlands: Resource Management
- ENVS 472 - Planning Studio
- ENVS 493 - Environmental Impact Assessment
- ENVS 496 - Environmental Stewardship
- ESCI 470 - Ecological Restoration
- ESCI 490 - Environmental Risk Assessment
- ESCI 491 - Oceanography of Puget Sound
- ESCI 493 - Environmental Impact Assessment
- ❑ One course from:
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
  - JOUR 414 - Newspaper Staff
  - JOUR 415 - Newspaper Editorship
- ❑ One course from:
  - JOUR 321 - Periodical Staff
  - JOUR 421 - Periodical Staff
  - JOUR 422 - Periodical Editorship
- ❑ One course from:
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
  - JOUR 321 - Periodical Staff
  - JOUR 414 - Newspaper Staff
  - JOUR 415 - Newspaper Editorship
  - JOUR 421 - Periodical Staff
  - JOUR 422 - Periodical Editorship
  - ENVS 412 - Environmental Journalism
  - ENVS 413 - The Planet Staff
  - ENVS 414 - Editing the Planet \*
  - ENVS 414 offered only to Environmental/Journalism Majors - Editor status.
- ❑ Electives under advisement (11-18 credits):
  - ECON 383 - Environmental Economics
  - ECON 384 - Energy Economics
  - ECON 483 - Resource Economics
  - ESCI 300- and 400-level
  - ENVS 300- and 400-level
  - FAIR 300- and 400-level
  - HIST 480 - Modern Chinese Social History
  - JOUR 300- and 400-level
  - PLSC 346 - Politics of Inequality
  - PLSC 347 - Race, Politics and Public Policy
  - PLSC 390 - The Politics of Development
  - PLSC 420 - Environmental Politics
  - SOC 321 - Demography

## Journalism — News/Editorial, BA

Department of Journalism, College of Humanities and Social Sciences

### 79-81 Credits

#### Introduction

Journalism is the work of supplying content, primarily news, for the ever-expanding world of mass media. Journalists are responsible for gathering information, analyzing and editing it for a mass audience, and dispensing it using some form of media platform. Increasingly the methods of distribution have become more complex, but the basic mission of a journalist remains the same: to serve the public by finding, defining, writing and editing information.

Today's journalist may be found on traditional publications such as newspapers and magazines, broadcast outlets and specialized publications. He or she may utilize online delivery or other forms of electronic

communication. The trained journalist may use her or his skills in the expanding field of public relations, working to serve as a bridge between those with a message to communicate and the journalist who seeks information.

**Why Consider a Journalism - News/Editorial Major?**

Few fields of study prepare a person for as wide a range of interesting and challenging careers. Journalists first and foremost learn to write, to accumulate and analyze information. This set of skills is in demand in a host of fields beyond traditional mass media.

The study of Journalism exposes a student to current affairs and problems, from issues of campus governance to international news and concerns. Journalism students are expected to question, to challenge sources of information and seek a variety of data and opinions on any serious issue.

Journalism students are given the daily opportunity to practice what they learn, in hands-on student publication laboratories, culminating in a professional internship. The Journalism faculty at Western are prepared both professionally and academically to help students enter this exciting career field.

Contact Information	
<b>Department Chair</b> Jennifer Keller Communications Facility 253 360-650-4987 Jennifer.Keller@wwu.edu	<b>Academic Department Manager</b> Karen Smith Communications Facility 255 360-650-3252 Karen.Smith@wwu.edu

**Sample Careers**  
Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**Criteria for declaring a pre-major:**

To be eligible to declare as a pre-major in journalism, a student must have a minimum 2.5 cumulative GPA. Transfer students will be accepted during summer Transitions advising or during their first quarter on campus. Freshmen must complete one quarter of classes at WWU to establish a GPA before being considered as a pre-major. Current WWU students must show evidence of the required 2.5 GPA. Students are encouraged to declare as a pre-major while completing the requirements for the major. For complete details, see Steps to Becoming a Major, Declaring as a Pre-Major on the department's website.

**Admissions:** For admission to the major, a student must have completed the following requirements:

- Complete at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better
- Complete one Journalism staff course with a B- or better
- Submit a letter of application

Students meeting qualifications but not admitted because of space limitations will be listed as pre-majors and admitted as space allows.

**Application deadlines:** Deadlines for major declarations are posted in the Journalism Department and on the student Canvas site each quarter.

See additional details in the Journalism Department's Declaration of Major.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Cumulative GPA of 2.50 or higher in major is required.

# JOURNALISM

## Requirements

- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 340 - History of U.S. Journalism
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- JOUR 404 - Feature Writing
- JOUR 430 - Field Internship
- JOUR 450 - Advanced Reporting
- JOUR 480 - Senior Seminar
- Three quarters on publication staff:
  - Two courses from list (a):
    - JOUR 214 - Newspaper Staff
    - JOUR 314 - Newspaper Staff
    - JOUR 414 - Newspaper Staff
    - JOUR 415 - Newspaper Editorship
  - One course from list (b):
    - JOUR 321 - Periodical Staff
    - JOUR 421 - Periodical Staff
  - And one additional from list (a) or (b), or:
    - ENVS 413 - The Planet Staff
    - JOUR 305 - Photojournalism
    - JOUR 346 - Introduction to Visual Journalism
    - JOUR 370 - Digital Media in Journalism
    - JOUR 323 - Magazine Visual Storytelling
    - JOUR 422 - Periodical Editorship
    - JOUR 423 - Magazine Visual Storytelling
    - JOUR 313 - Newspaper Visual Storytellers
    - JOUR 413 - Newspaper Visual Storytelling
- 12 upper-division credits in another academic area under departmental advisement

## Journalism — Public Relations, BA

Department of Journalism, College of Humanities and Social Sciences

### 79-81 Credits

#### Introduction

Journalism is the work of supplying content, primarily news, for the ever-expanding world of mass media. Journalists are responsible for gathering information, analyzing and editing it for a mass audience, and dispensing it using some form of media platform. Increasingly the methods of distribution have become more complex, but the basic mission of a journalist remains the same: to serve the public by finding, defining, writing and editing information.

Today's journalist may be found on traditional publications such as newspapers and magazines, broadcast outlets and specialized publications. He or she may utilize online delivery or other forms of electronic communication. The trained journalist may use her or his skills in the expanding field of public relations, working to serve as a bridge between those with a message to communicate and the journalist who seeks information.

#### Why Consider the Public Relations Sequence of the Journalism Major?

Journalism majors pursue theoretical and practical communication studies in a liberal arts setting. Students of journalism gain practical experience on Western's award-winning student media, and majors additionally take

field internships with newspapers, magazines, broadcast stations, public relations agencies and other professional organizations.

Courses in the public relations sequence follow the news-editorial emphasis, adding communication skills important for careers in this rapidly growing field.

#### Contact Information

##### Department Chair

Jennifer Keller  
Communications Facility 253  
360-650-4987  
Jennifer.Keller@wwu.edu

##### Academic Department Manager

Karen Smith  
Communications Facility 255  
360-650-3252  
Karen.Smith@wwu.edu

#### Sample Careers

Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Criteria for declaring a pre-major:

To be eligible to declare as a pre-major in journalism, a student must have a minimum 2.5 cumulative GPA. Transfer students will be accepted during summer Transitions advising or during their first quarter on campus. Freshmen must complete one quarter of classes at WWU to establish a GPA before being considered as a pre-major. Current WWU students must show evidence of the required 2.5 GPA. Students are encouraged to declare as a pre-major while completing the requirements for the major. For complete details, see Steps to Becoming a Major, Declaring as a Pre-Major on the department's website.

**Admissions:** For admission to the major, a student must have completed the following requirements:

- Complete at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better
- Complete one Journalism staff course with a B- or better
- Submit a letter of application

Students meeting qualifications but not admitted because of space limitations will be listed as pre-majors and admitted as space allows.

**Application deadlines:** Deadlines for major declarations are posted in the Journalism Department and on the student Canvas site each quarter.

See additional details in the Journalism Department's Declaration of Major.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Cumulative GPA of 2.50 or higher in major is required.

#### Requirements

- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting
- JOUR 309 - Editing
- JOUR 330 - Principles of Public Relations
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- JOUR 380 - Advanced Public Relations Writing and Techniques
- JOUR 404 - Feature Writing

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- ❑ JOUR 407 - Public Relations Case Studies
- ❑ JOUR 430 - Field Internship
- ❑ JOUR 440 - Public Relations Research and Campaigns
- ❑ JOUR 480 - Senior Seminar
- ❑ Two quarters on publication staff:
  - One course from list (a):
    - JOUR 214 - Newspaper Staff
    - JOUR 314 - Newspaper Staff
    - JOUR 414 - Newspaper Staff
  - One from list (b):
    - JOUR 321 - Periodical Staff
    - JOUR 421 - Periodical Staff
  - and one additional class from (a) or (b), or:
    - ENVS 413 - The Planet Staff
    - JOUR 305 - Photojournalism
    - JOUR 346 - Introduction to Visual Journalism
    - JOUR 370 - Digital Media in Journalism
    - JOUR 313 - Newspaper Visual Storytellers
    - JOUR 323 - Magazine Visual Storytelling
    - JOUR 413 - Newspaper Visual Storytelling
    - JOUR 415 - Newspaper Editorship
    - JOUR 422 - Periodical Editorship
    - JOUR 423 - Magazine Visual Storytelling
- ❑ 12 upper-division credits in another academic area, under departmental advisement

### Journalism — Visual Journalism, BA

Department of Journalism, College of Humanities and Social Sciences

#### 84-86 Credits

#### Introduction

Journalism is the work of supplying content, primarily news, for the ever-expanding world of mass media. Journalists are responsible for gathering information, analyzing and editing it for a mass audience, and dispensing it using some form of media platform. Increasingly the methods of distribution have become more complex, but the basic mission of a journalist remains the same: to serve the public by finding, defining, writing and editing information.

Today's journalist may be found on traditional publications such as newspapers and magazines, broadcast outlets and specialized publications. He or she may utilize online delivery or other forms of electronic communication. The trained journalist may use her or his skills in the expanding field of public relations, working to serve as a bridge between those with a message to communicate and the journalist who seeks information.

#### Why Consider the Visual Journalism Sequence of the Journalism Major?

Journalism majors pursue theoretical and practical communication studies in a liberal arts setting. Students of journalism gain practical experience on Western's award-winning student media, and majors additionally take field internships with newspapers, magazines, broadcast stations, public relations agencies and other professional organizations.

Courses in the visual journalism sequence prepare students in the concepts, professional practices and course work applications of visual components of news: photojournalism, information graphics, video and audio clips, mapping and typography.

#### Contact Information

##### Department Chair

Jennifer Keller  
Communications Facility 253

##### Academic Department Manager

Karen Smith  
Communications Facility 255



360-650-4987  
Jennifer.Keller@wwu.edu

360-650-3252  
Karen.Smith@wwu.edu

Sample Careers

Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process)**

**Criteria for declaring a pre-major:**

To be eligible to declare as a pre-major in journalism, a student must have a minimum 2.5 cumulative GPA. Transfer students will be accepted during summer Transitions advising or during their first quarter on campus. Freshmen must complete one quarter of classes at WWU to establish a GPA before being considered as a pre-major. Current WWU students must show evidence of the required 2.5 GPA. Students are encouraged to declare as a pre-major while completing the requirements for the major. For complete details, see Steps to Becoming a Major, Declaring as a Pre-Major on the department's website.

**Admissions:** For admission to the major, a student must have completed the following requirements:

- Complete at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better
- Complete one Journalism staff course with a B- or better
- Submit a letter of application

Students meeting qualifications but not admitted because of space limitations will be listed as pre-majors and admitted as space allows.

**Application deadlines:** Deadlines for major declarations are posted in the Journalism Department and on the student Canvas site each quarter.

See additional details in the Journalism Department's Declaration of Major.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Cumulative GPA of 2.50 or higher in major is required.

**Requirements**

- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting
- JOUR 305 - Photojournalism
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 346 - Introduction to Visual Journalism
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- JOUR 370 - Digital Media in Journalism
- JOUR 430 - Field Internship
- JOUR 446 - Advanced Visual Journalism
- JOUR 480 - Senior Seminar
- One course from:
  - ART 109 - Visual Dialogue
  - DSGN 211 - Foundations of Visual Communication
- Three quarters on publication staff:
  - One course from list (a):
  - JOUR 214 - Newspaper Staff

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JOUR 314 - Newspaper Staff

JOUR 414 - Newspaper Staff

One from list (b):

JOUR 321 - Periodical Staff

JOUR 421 - Periodical Staff

And one additional from list (a) or (b), or:

ENVS 413 - The Planet Staff

JOUR 313 - Newspaper Visual Storytellers

JOUR 323 - Magazine Visual Storytelling

JOUR 330 - Principles of Public Relations

JOUR 404 - Feature Writing

JOUR 413 - Newspaper Visual Storytelling

JOUR 415 - Newspaper Editorship

JOUR 422 - Periodical Editorship

JOUR 423 - Magazine Visual Storytelling

□ 12 upper-division credits in another academic area, under departmental advisement

## Minor

### Journalism News/Editorial Minor

Journalism, College of Humanities and Social Sciences

**35 credits**

#### Introduction

Journalism is the work of supplying content, primarily news, for the ever-expanding world of mass media. Journalists are responsible for gathering information, analyzing and editing it for a mass audience, and dispensing it using some form of media platform. Increasingly the methods of distribution have become more complex, but the basic mission of a journalist remains the same: to serve the public by finding, defining, writing and editing information.

Today's journalist can be found on traditional publications such as newspapers and magazines, broadcast outlets and specialized publications. He or she may utilize online delivery or other forms of electronic communication. The trained journalist may use her or his skills in the expanding field of public relations, working to serve as a bridge between those with a message to communicate and the journalist who seeks information.

#### Why Consider a Journalism News/Editorial Minor?

The Journalism News/Editorial Minor focuses on writing, reporting and editing. These communication skills are useful in many fields, and journalism minors may work in some aspect of publishing or may apply their journalist expertise to another industry, such as education.

#### Contact Information

##### Department Chair

Jennifer Keller

Communications Facility 253

360-650-4987

Jennifer.Keller@wwu.edu

##### Academic Department Manager

Karen Smith

Communications Facility 255

360-650-3252

Karen.Smith@wwu.edu

#### Sample Careers

Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students interested in completing a Journalism News/Editorial Minor must have a 2.5 GPA or higher at Western. Students should contact the Journalism department manager as early as possible to complete the paperwork. Journalism courses are in high demand, and we work closely with minors to place them in classes in a timely fashion for graduation.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- JOUR 207 - Newswriting
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 340 - History of U.S. Journalism
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- Two quarters on student publication staff:
  - One course from list (a):
    - JOUR 214 - Newspaper Staff
    - JOUR 314 - Newspaper Staff
    - JOUR 414 - Newspaper Staff
  - One course from list (b):
    - JOUR 321 - Periodical Staff
    - JOUR 421 - Periodical Staff

**Journalism Public Relations Minor**

Department of Journalism, College of Humanities and Social Sciences

**33-35 credits**

**Introduction**

Journalism majors and minors pursue theoretical and practical communication studies in a liberal arts setting. Courses in the public relations minor include writing, media studies and public relations courses to provide students with basic skills important for careers in this rapidly growing field.

**Why Consider a Journalism Public Relations Minor?**

The Journalism Public Relations Minor was added to provide a focus on public relations studies not covered in the Journalism Minor, which emphasizes news/editorial. Its focus on writing, editing, analysis of information and communicating to a variety of audiences using a breadth of communication platforms is of interest to many employers in today's fast-changing economy. The Journalism Public Relations Minor is an excellent complement to majors such as business, marketing and communication studies.

Contact Information	
<p><b>Department Chair</b>                  Jennifer Keller                  Communications Facility 253                  360-650-4987                  Jennifer.Keller@wwu.edu</p>	<p><b>Academic Department Manager</b>                  Karen Smith                  Communications Facility 255                  360-650-3252                  Karen.Smith@wwu.edu</p>

**Sample Careers**  
 Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

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## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students interested in completing a minor in Journalism/Public Relations must have a 2.5 GPA or higher at Western. They should contact the Journalism department manager as early as possible to complete paperwork. Journalism and PR courses are in high demand, and we work closely with minors to place them in classes in a timely fashion for graduation.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and not supporting courses for majors and minors.

### Requirements

- JOUR 207 - Newswriting
- JOUR 309 - Editing
- JOUR 330 - Principles of Public Relations
- JOUR 351 - Mass Media Ethics
- JOUR 380 - Advanced Public Relations Writing and Techniques
- One course from:
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
- One course from:
  - JOUR 321 - Periodical Staff
  - JOUR 421 - Periodical Staff
- One course from:
  - ENVS 413 - The Planet Staff
  - JOUR 305 - Photojournalism
  - JOUR 307 - Reporting
  - JOUR 314 - Newspaper Staff
  - JOUR 321 - Periodical Staff
  - JOUR 350 - Mass Media Law
  - JOUR 397 (with approval)
  - JOUR 414 - Newspaper Staff
  - JOUR 421 - Periodical Staff
  - JOUR 422 - Periodical Editorship

## Journalism Courses

### JOUR 106 - Writing Structure

Analysis of and skill development in sentence structure, syntax, English grammar, mechanics, usage and punctuation as applied to journalistic writing.

**Credits:** 2

**Grade Mode:** Letter

### JOUR 190 - Introduction to Mass Media

Introduction to basic issues and problems facing journalists and the public as recipients of mass media messages in national and international society; nature, theory and effects of communication; media systems, structure and support; world news flow; media controls; First

Amendment rights; ethical considerations.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

### JOUR 207 - Newswriting

Writing for news media; clarity in use of language, style and punctuation; sentence and paragraph structure and organization of stories; credibility of information and news judgment; basic methods of researching and writing. Weekly news discussions based on a major national newspaper as one of the texts.

**Prerequisites & Notes:** basic word processing skills required

**Credits:** 4

**Grade Mode:** Letter  
**GUR Attributes:** BCOM

**JOUR 214 - Newspaper Staff**

Participation on the staff of the university newspaper. Write articles and take photographs for the university's newspaper and online edition. Gather and edit audio and video, create multimedia packages for the newspaper's Web site. Also includes lecture.

**Prerequisites & Notes:** Sophomore status; JOUR 207.

**Credits:** 4

**Grade Mode:** Letter

**JOUR 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**JOUR 305 - Photojournalism**

Introduction to news photography and its application in print and online; composing effective new pictures; essentials of processing for print publication and multi-media projects; picture editing and layout; professional ethics and the law.

**Prerequisites & Notes:** JOUR 207; basic knowledge of photography and instructor permission

**Credits:** 4

**Grade Mode:** Letter

**JOUR 307 - Reporting**

Interviewing, news coverage of community news sources with emphasis on public affairs reporting. Introduction to computerized database reporting and investigative techniques. Writing for news media.

**Prerequisites & Notes:** B- or better in JOUR 207 or instructor permission

**Credits:** 5

**Grade Mode:** Letter

**JOUR 309 - Editing**

News copy desk operations; editing; headline writing; dummyming; page make-up and news graphics; and computerized editing.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380.

**Credits:** 5

**Grade Mode:** Letter

**JOUR 313 - Newspaper Visual Storytellers**

Participation as a visual storyteller for the university newspaper. May take photographs for the university's newspaper, gather and edit audio and video, and/or create multimedia packages for the newspaper's Web site. Also includes lecture but not writing articles. May not be taken concurrently with a staff or editing course. Repeatable up to 12 credits including original course.

**Prerequisites & Notes:** JOUR 214, JOUR 314 or JOUR 414 with a B- or better; JOUR 305; and instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**JOUR 314 - Newspaper Staff**

Participation on the staff of the university newspaper. Write articles and take photographs for the university's newspaper. Gather and edit audio and video, create multimedia packages for the newspaper's Web site. Also includes lecture.

**Prerequisites & Notes:** Junior status; JOUR 207; JOUR 214; JOUR 307 or JOUR 380.

**Credits:** 4

**Grade Mode:** Letter

**JOUR 321 - Periodical Staff**

Staff writers prepare and produce the twice-quarterly university periodical and its online edition under the direction of the editor-in-chief and editorial management staff; learn and practice querying story ideas, researching, reporting, writing and then assisting with production of the written and visual elements of the magazine, including online elements for the website. Writers will manage their own time outside of class to report, write and revise manuscripts, investing time appropriate to their task and their goals and to meet deadline, and work with the editorial management team on production issues. Repeatable up to 8 credits including original course.

**Prerequisites & Notes:** JOUR 207; one newspaper staff course

**Credits:** 4

**Grade Mode:** Letter

**JOUR 323 - Magazine Visual Storytelling**

Magazine visual storytellers help prepare and produce the twice-quarterly university periodical

## JOURNALISM

and its online edition under the direction of the editor-in-chief and editorial management staff and create or assist with production of the visual elements of the magazine, including online elements for the website. Visual storytellers will manage their own time outside of class to take photographs, develop ideas for online content, create video or audio segments, and design online visual elements, investing time appropriate to their tasks and their goals and to meet deadlines, and work with the editorial management team on production issues. Students will work independently and with writers on specific stories. Repeatable to a maximum of 8 credits including original course.

**Prerequisites & Notes:** JOUR 321 or JOUR 421, with a grade of B- or better; JOUR 305; and instructor permission. May not be taken concurrently with a JOUR staff course.

**Credits:** 4

**Grade Mode:** Letter

### JOUR 330 - Principles of Public Relations

Methods, tools and media used in planning and developing strategic public relations programs for all organizations. Practicing research methods, writing news releases, understanding effective communications strategies and integrated marketing communications, analyzing case studies, exploring relations with the press and developing creative public relations campaigns.

**Prerequisites & Notes:** JOUR 207 or ENG 101 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### JOUR 340 - History of U.S. Journalism

An examination of how U.S. journalism has influenced U.S. history from the works that inspired the revolution to the coverage of 9/11. A poster presentation offers students the opportunity to research the role of the news media in shaping a specific event or issue in U.S. history.

**Prerequisites & Notes:** junior standing

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### JOUR 346 - Introduction to Visual Journalism

Critical and analytical exploration of the visual aspects of storytelling in print and online media; research on the cultural history and news media application of photography, infographics, typography, audio and video clips. Consideration of special properties, demands, and aspects of visuals as they are used to enhance and augment written

news narratives. Application of these principles through projects that produce still and video photography, audio, informational graphics and typography to accompany written narrative.

**Prerequisites & Notes:** JOUR 207, JOUR 305, JOUR 309

**Credits:** 5

**Grade Mode:** Letter

### JOUR 350 - Mass Media Law

Rights and legal restrictions on freedom of the press; constitutional guarantees as interpreted through the courts; libel, privacy, access to information, censorship, contempt, agency regulations. Issues applying to various forms of mass media, including print, broadcast and online publishing.

**Prerequisites & Notes:** Junior status.

**Credits:** 5

**Grade Mode:** Letter

### JOUR 351 - Mass Media Ethics

Introduction to ethical theories; examination of professional codes and standards; changing roles of the media that affect moral reasoning for the journalist; responsibilities of the media in a world of instant communication and reaction; historical perspectives through case studies; use of reporting editing and advocacy methods and formation of news in print, broadcast and online media. Research paper examines ethics topic.

**Prerequisites & Notes:** JOUR 207

**Credits:** 4

**Grade Mode:** Letter

### JOUR 360 - Study of Literary Journalism

Reading and critiquing texts that use literary techniques to enhance journalism. Studying the history of literary journalism and its impact on the field.

**Prerequisites & Notes:** Junior status

**Credits:** 3

**Grade Mode:** Letter

### JOUR 365 - Publications - from Concept to Design

This course is designed for those who are interested in exploring magazines and who may be considering a career as a magazine writer, editor or designer. The course provides an introduction to magazine publishing, including a historical overview of the magazine industry, its evolution and its place in a consumer society. We will survey current consumer publications and will analyze

what makes the best ones distinctive and valuable. The course will focus on how magazines are conceived, organized, edited, financed, produced and distributed. Based on this background, students will build a prospectus for a magazine of their own design which will answer the questions posed by backers: What is the editorial style, who is the audience, how will it be financed, who are the advertisers, what is the circulation, what is the character of its design, what makes it unique. The class also will address the growth of online publishing.

**Credits:** 5  
**Grade Mode:** Letter

**JOUR 370 - Digital Media in Journalism**

Students will learn the basic steps to plan, produce and edit journalism that combines written components, audio, video and graphics to create compelling and engaging multimedia reports. Students will watch, analyze and provide written critiques of published multimedia projects. Students will examine the methods and techniques used by successful multimedia journalists. Students will produce, edit and review their own multimedia projects that combine written, audio and visual elements.

**Prerequisites & Notes:** JOUR 307 and JOUR 309. May not be taken concurrently with JOUR 346.  
**Credits:** 5  
**Grade Mode:** Letter

**JOUR 375 - Diversity, Mass Media and Social Change**

Uses an intersectional framework of race/ethnicity, gender, class and other demographic groups to examine how mass media cover social change and affect their audiences.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

**JOUR 380 - Advanced Public Relations Writing and Techniques**

Intensive focus on the processes involved in writing for an organization's diverse publics, including news releases, op-eds, broadcast material, speeches, organizational memos and proposals, employer publications, backgrounders, features and web sites. Students gain hands-on experience by applying these skills and processes through service-learning by writing for community organizations.

**Prerequisites & Notes:** JOUR 207 and JOUR 330.

**Credits:** 5  
**Grade Mode:** Letter

**JOUR 390 - The News Process**

Critical examination of current news issues and decision-making processes through visiting news media professionals, readings and discussion. Repeatable to a maximum of 8 credits with various topics.

**Prerequisites & Notes:** Junior status  
**Credits:** 4  
**Grade Mode:** Letter

**JOUR 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**JOUR 404 - Feature Writing**

In-depth article, column, and persuasive writing; development of ideas, gathering of materials and writing; special attention to individual interests; exploration of freelance writing markets.

**Prerequisites & Notes:** Major status and JOUR 307 or JOUR 380.  
**Credits:** 4  
**Grade Mode:** Letter

**JOUR 407 - Public Relations Case Studies**

A study of the functions, processes and problems in the practice of public relations, paying particular attention to media relations, public relations theory and critical thinking. Students examine various genres of public relations, as well as exploring how theory, research, strategic objectives and evaluation contribute to successful campaigns. Students learn about creating successful public relations campaigns through critically analyzing case studies of both local companies and national programs and then applying what they learned to create a new proposal or campaign.

**Prerequisites & Notes:** JOUR 207; JOUR 330; JOUR 380. Major status.  
**Credits:** 4  
**Grade Mode:** Letter

**JOUR 413 - Newspaper Visual Storytelling**

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Participation as a visual storyteller for the university newspaper. May take photographs for the university's newspaper, gather and edit audio and video, and/or create multimedia packages for the newspaper's Web site. Also includes lecture but not writing articles. May not be taken concurrently with a staff or editing course. Repeatable up to 12 credits including original course.

**Prerequisites & Notes:** Junior Status; JOUR 214, JOUR 314 or JOUR 414 with a B- or better; JOUR 305; and instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### JOUR 414 - Newspaper Staff

Participation on the staff of the university newspaper. Writing articles and taking photographs for the university's newspaper and online edition. Gathering and editing audio and video, creating multimedia packages for the newspaper's Web site. Also includes lecture. Repeatable up to 16 credits including original course.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380; JOUR 314.

**Credits:** 4

**Grade Mode:** Letter

### JOUR 415 - Newspaper Editorship

Publication editing and development; assigning and editing news stories, photographs and multimedia projects; creating content for the publication's Web site; creating and implementing budget and advising on budget decisions; acting as mentor to assigned staff members; holding office hours and meeting outside scheduled class time; preparing reports and presentations for class and instructor; assisting with and taking part in workshops; office management and security; learning personnel communication skills; using advanced publication software and technology; making self-evaluation and production reports for adviser. Repeatable up to 20 credits including original course. This course may not be taken concurrently with a staff course.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380; one newspaper staff course and permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### JOUR 421 - Periodical Staff

Staff writers prepare and produce the twice-quarterly university periodical and its online edition under the direction of the editor-in-chief and editorial management staff; learn and practice querying story ideas, researching, reporting,

writing and then assisting with production of the written and visual elements of the magazine, including online elements for the website. Writers will manage their own time outside of class to report, write and revise manuscripts, investing time appropriate to their task and their goals and to meet deadline, and work with the editorial management team on production issues. Repeatable up to 12 credits including original course.

**Prerequisites & Notes:** Senior status; JOUR 207; JOUR 307 or JOUR 380; and one newspaper staff course.

**Credits:** 4

**Grade Mode:** Letter

### JOUR 422 - Periodical Editorship

Print publication and online publication editing and development; hiring and supervising an editorial management team to produce the twice-quarterly university periodical and its online edition; acting as mentor to assigned staff members; holding office hours and meetings outside scheduled class time; preparing reports and presentations for class and instructor; assisting with and taking part in workshops; managing the publication office; reviewing and staying within budget; learning personnel communication skills; using advanced publication software and technology; making self-evaluation and production reports for adviser. This course may not be taken concurrently with a periodical staff course. Repeatable up to 15 credits including original course.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380; one periodical staff course, and permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### JOUR 423 - Magazine Visual Storytelling

Magazine visual storytellers help prepare and produce the twice-quarterly university periodical and its online edition under the direction of the editor-in-chief and editorial management staff and create or assist with production of the visual elements of the magazine, including online elements for the website. Visual storytellers will manage their own time outside of class to take photographs, develop ideas for online content, create video or audio segments, and design online visual elements, investing time appropriate to their tasks and their goals and to meet deadlines, and work with the editorial management team on production issues. Students will work independently and with writers on specific stories. Repeatable to a maximum of 8 credits including original course.



**Prerequisites & Notes:** JOUR 321 or JOUR 421, with a grade of B- or better; JOUR 305; and instructor permission. May not be taken concurrently with a JOUR staff course.

**Credits:** 4

**Grade Mode:** Letter

### **JOUR 430 - Field Internship**

Supervised field work on newspapers, magazines, radio and TV stations, public relations and advertising agencies, or other appropriate professional situations. S/U grading.

**Prerequisites & Notes:** For the news/editorial sequence: Jour 207, JOUR 307, JOUR 309, JOUR 350, JOUR 351, two newspaper staff courses and major status. For the public relations sequence: JOUR 207, JOUR 309, JOUR 330, JOUR 350, JOUR 351, JOUR 380, one newspaper staff course and major status. For the visual journalism sequence: JOUR 207, JOUR 305, JOUR 307, JOUR 309, JOUR 346, JOUR 350, JOUR 351, one newspaper staff course and major status. For the environmental journalism sequence: JOUR 207, JOUR 307, JOUR 309, JOUR 350, one newspaper staff course and major status.

**Credits:** 6

**Grade Mode:** S/U

### **JOUR 440 - Public Relations Research and Campaigns**

Study and practice in research methods, theory, implementation and evaluation of effective programs of communication. Students work in teams to establish a firm theoretical and research-based approach to planning an effective public relations campaign for a community organization.

**Prerequisites & Notes:** JOUR 330, JOUR 380 and major status.

**Credits:** 5

**Grade Mode:** Letter

### **JOUR 446 - Advanced Visual Journalism**

In depth exploration of concepts and practices explored in Journalism 346. Students work in teams to apply theories, conduct research, analyze data and apply design and software skills to produce visual and verbal elements for advanced projects.

**Prerequisites & Notes:** Major status and Jour 346 and JOUR 370.

**Credits:** 5

**Grade Mode:** Letter

### **JOUR 450 - Advanced Reporting**

Survey and application of advanced reporting

techniques, including computer-assisted reporting, and the use of the Internet, to produce news stories of depth, complexity and appeal.

**Prerequisites & Notes:** JOUR 307, JOUR 350 and JOUR 351; major status.

**Credits:** 5

**Grade Mode:** Letter

### **JOUR 460 - Special Reporting Project**

Students write about and photograph people who have ethnic, national, environmental or cultural backgrounds different from the dominant society; sensitivity to other cultural traditions; advanced reporting and writing skills.

**Prerequisites & Notes:** JOUR 307 or JOUR 380; JOUR 350 or JOUR 351; two staff courses and major status.

**Credits:** 4

**Grade Mode:** Letter

### **JOUR 480 - Senior Seminar**

Examines research methods in and theories of mass communication in the context of the practice of journalism and public relations in a democratic society. A research paper provides students with practice applying specific methods and theories to explore contemporary issues in journalism and public relations.

**Prerequisites & Notes:** JOUR 350 and JOUR 351; and major status.

**Credits:** 5

**Grade Mode:** Letter

# Liberal Studies

## Introduction

Liberal Studies is an interdisciplinary humanities department. We give our students a broad perspective on the world by leading them in exploration of major textual traditions, drawing on all the scholarly disciplines that make up the humanities - philosophy, religion, history, literature, and the arts - to see how people in different cultures have thought about truth and the meaning of human experience, standards of moral judgment for human actions, and the nature of beauty and the cultivation of taste in the arts.

The department teaches students to ask how works of the humanities have been shaped by their historical and cultural contexts, and how they in turn have influenced readers and audiences. The department supports the study of humanities in the cultures of Europe, the Americas, China, Japan, South Asia, sub-Saharan Africa, and in predominately Islamic areas. Its courses give attention to historical development and cross-cultural interaction, both in the past and in the modern period.

The department offers the BA in Humanities with two areas of concentration: the history of culture, and the academic study of religion, both with the option of writing a senior thesis. Students in the BA degree programs practice what they have learned about analyzing texts, works of art and historical contexts in various forms of supervised research. In the degree programs and in General University Requirements courses students develop habits of mind characterized by awareness of methodological issues, analysis from more than one perspective, aesthetic appreciation, and clear communication, habits which have proved to be broadly useful to them in a variety of professional careers and in civic life.

## Information

For additional information, contact the Department of Liberal Studies, Western Washington University, 516 High St., Bellingham, WA 98225-9064. The department office is located in Bond Hall 152, telephone 360-650-3030, fax 360-650-6713, e-mail: Liberal.Studies@wwu.edu. Web access: [www.wwu.edu/liberalstudies](http://www.wwu.edu/liberalstudies).

- The department offers interdisciplinary courses which can fulfill a major part of the WWU General University Requirements in humanities and in comparative, gender and multicultural studies; see the University Graduation Requirements section of this

catalog for the complete General University Requirements and options for satisfying them

- The department offers a BA in Humanities with a choice of two concentrations, in History of Culture or in Religion and Culture
- The department offers interdisciplinary minor programs in Humanities and in the Study of Religion
- The department administers and offers courses in the minor in Arabic and Islamic studies
- The department offers courses in the East Asian Studies program
- The department administers the Student/Faculty-Designed Major in the College of Humanities and Social Sciences. This program allows students, in consultation with appropriate faculty, to design an interdisciplinary course of study in areas not available through existing departmental majors

Additional information about all of the foregoing is available from the Liberal Studies Office, Bond Hall 152.

## Faculty

**KIMBERLY LYNN** (2006) Chair and Associate Professor. BA, College of William and Mary; MA, PhD, Johns Hopkins University.

**HOLLY FOLK** (2007) Associate Professor. BA, Wesleyan University; MA, Columbia University; PhD, Indiana University.

**ANDREA GOGROF** (1996) Professor. BA, MA, University of Paris, Nanterre; PhD, University of Washington.

**JONATHAN MIRAN** (2003) Associate Professor. BA, MA, Institut National des Langues et Civilisations Orientales, Paris; PhD, Michigan State University.

**SEAN E. MURPHY** (2002) Associate Professor. AB, MA, PhD, Cornell University.

**SCOTT PEARCE** (1992) Professor. BA, Rutgers University; PhD, Princeton University.

**MICHAEL SLOUBER** (2014) Assistant Professor. BA, UC Davis; MA, South & Southeast Asian Studies, UC Berkeley; MA, Kultur und Geschichte Indiens, University of Hamburg, Germany; PhD, UC Berkeley.

**ROBERT F. STOOPS, JR.** (1983) Professor. AB, University of North Carolina at Chapel Hill; MDiv, Harvard Divinity School; MA, PhD, Harvard University.

## Other Departmental Information

### Mid-Program Checkpoint

Students seeking to complete a BA in Humanities degree within four years should take LBRL 121 and LBRL 122 before spring quarter of their junior year. LBRL 302 should be taken in spring quarter of the junior year. If not taken before this quarter, LBRL 123 must be taken in the same quarter as LBRL

302. By the end of their junior year students also should complete 12-15 additional credits from the courses required for the BA in Humanities degree. Transfer students should contact the department for advisement as early as possible.

## Bachelor of Arts

### Humanities — History of Culture Concentration, BA

Department of Liberal Studies, College of Humanities and Social Sciences

#### 68-70 credits

#### Introduction

The humanities include the disciplines which study philosophy, religion, history, literature, and the arts. The B.A. in Humanities, History of Culture Concentration, attracts students who want to major in more than one Humanities discipline, using interdisciplinary methods of investigation.

The department supports study of cultural history on a global level, including Europe and the Americas, China, Japan, South Asia, sub-Saharan Africa, and predominantly Islamic areas. Its courses give attention to historical development and cross-cultural interaction, both in the past and in the modern period. Students learn to analyze individual works of the humanities and to relate them to social and cultural developments.

The small size of classes and seminars in the Humanities B.A. programs encourages close relationships between students and faculty. Working closely with faculty, students learn to formulate problems clearly, to consider and evaluate different methods and concepts, to do efficient and thorough research, and to write clearly, concisely and effectively, culminating in work in rigorous senior seminars.

For information or advisement, contact the Liberal Studies Office.

#### Why Consider a History of Culture Concentration in the Humanities Major?

Students in this major acquire skills broadly applicable to professional careers. These include problem solving, critical thinking, research skills, integrative skills, and written and oral communications skills. While preparing students for knowledgeable participation in civic life, these also provide a solid foundation for careers in both public and private settings. Graduates have gone on to a variety of professional graduate schools and fields of work, including teaching, law, library science, archive administration, and research and administrative positions with business and non-profit organizations. The major has also proved to be excellent preparation for graduate academic programs in literature, history and the study of religion.

Students who plan a career in secondary education should contact the department for advising as soon as possible.

#### Contact Information

##### Program Advisor

Sean Murphy  
Bond Hall 160  
360-650-4870  
Sean.Murphy@wwu.edu

##### Academic Department Manager

Bond Hall 152  
360-650-3030

#### Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

# LIBERAL STUDIES

## How to Declare (Admission and Declaration Process):

Students interested in the Humanities degree should contact the Liberal Studies Department as soon as possible.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, LBRL 422, LBRL 423, LBRL 424 and LBRL 425. It is recommended that students undertake study of a foreign language concurrently with the major.

## Requirements

### Core 18-20 credits

- One course from:
  - LBRL 121 - The Western Tradition I: The Ancient World
  - HNRS 103 - Major Cultural Traditions I
- One course from:
  - LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
  - HNRS 104 - Major Cultural Traditions II
- LBRL 123 - The Western Tradition III: The Modern World
- LBRL 302 - Methods of Interdisciplinary Study

### Concentration 35 credits

- One course (5 credits) from:
  - LBRL 231 - Introduction to the Study of Religion
  - LBRL 243 - Art and Ideas
  - LBRL 265 - Science and Religion in American Culture
  - LBRL 281 - Representations of Otherness
  - LBRL 301 - Historical Methods in the Humanities
  - LBRL 303 - Methods in the Study of Religion
- Two courses (10 credits) from:
  - LBRL 271 - Humanities of India
  - LBRL 273 - Art and Society in China and Japan
  - LBRL 275 - Humanities of Japan
  - LBRL 276 - Humanities of Africa
  - LBRL 277 - Humanities of China
  - LBRL 278 - Humanities of Islamic Civilization
  - LBRL 345 - Fierce Goddesses of India
  - LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
  - LBRL 362 - Islam in the Indian Ocean World
  - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - LBRL 345, LBRL 360, LBRL 362, LBRL 372, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.
- Four courses (20 credits) under advisement from:
  - LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age
  - LBRL 323 - The Romantic Paradox: Love, Life and Death
  - LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion
  - LBRL 332 - World Religions
  - LBRL 333 - Religion in America
  - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
  - LBRL 336 - New Testament and Early Christianity

LBRL 338 - Mysticism

LBRL 340 - Sufism: The Islamic Mystical Tradition

LBRL 345 - Fierce Goddesses of India

LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern

LBRL 362 - Islam in the Indian Ocean World

LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context

LBRL 375 - Buddhism

LBRL 378 - Religion and Society in India

LBRL 380 - Religion and Society in China

LBRL 382 - Religion and Society in Japan

Or other appropriate upper-division courses in Humanities and Social Sciences under advisement.

LBRL 345, LBRL 360, LBRL 362, LBRL 372, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.

#### **Non-Thesis Option (15 credits)**

□ Three courses (15 credits) from:

LBRL 421 - Traditional Indian Medicine

LBRL 422 - The Pursuit of Happiness: Philosophy, Literature, and the Good Life

LBRL 423 - Relations between Jewish and Christian Cultures in Europe, c. 1100-c. 1650

LBRL 424 - Exploring Apocalypticism

LBRL 425 - The City and the Early Modern Iberian World

LBRL 428 - Revival and Reform in the Islamic World

## **Humanities — History of Culture Concentration, Thesis, BA**

Department of Liberal Studies, College of Humanities and Social Sciences

### **69-71 credits**

#### **Introduction**

The humanities include the disciplines which study philosophy, religion, history, literature, and the arts. The B.A. in Humanities, History of Culture Concentration, Thesis, attracts students who want to major in more than one Humanities discipline, using interdisciplinary methods of investigation.

The department supports study of cultural history on a global level, including Europe and the Americas, China, Japan, South Asia, sub-Saharan Africa, and predominantly Islamic areas. Its courses give attention to historical development and cross-cultural interaction, both in the past and in the modern period. Students learn to analyze individual works of the humanities and to relate them to social and cultural developments.

The small size of classes and seminars in the Humanities B.A. programs encourages close relationships between students and faculty. Working closely with faculty, students learn to formulate problems clearly, to consider and evaluate different methods and concepts, to do efficient and thorough research, and to write clearly, concisely and effectively, culminating in work in rigorous senior seminars as well as a senior thesis written under direction of two faculty members.

For information or advisement, contact the Liberal Studies Office.

#### **Why Consider a History of Culture Concentration, Thesis, in the Humanities Major?**

Students in this major acquire skills broadly applicable to professional careers. These include problem solving, critical thinking, research skills, integrative skills, and written and oral communications skills. These skills are developed to an even higher level when applied to the writing of a senior thesis. While preparing students for knowledgeable participation in civic life, they also provide solid foundation for careers in both public and private settings. Graduates have gone on to a variety of professional graduate schools and fields of work, including teaching, law, library science, archive administration, and research and administrative positions with business and non-profit organizations. The major has also proved to be excellent preparation for graduate academic programs in literature, history and the study of religion.

Students who plan a career in secondary education should contact the department for advising as soon as possible.

# LIBERAL STUDIES

## Contact Information

### Program Advisor

Sean Murphy  
Bond Hall 160  
360-650-4870  
Sean.Murphy@wwu.edu

**Academic Department Manager**  
Bond Hall 152  
360-650-3030

## Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, LBRL 422, LBRL 423, LBRL 424 and LBRL 425. LBRL 498 (3 credits) should be taken with a Liberal Studies faculty member in the quarter prior to enrolling in LBRL 499 (3 credits), to prepare for the latter. It is recommended that students undertake study of a foreign language concurrently with the major.

## Requirements

### Core 18-20 credits

- One course from:
  - LBRL 121 - The Western Tradition I: The Ancient World
  - HNRS 103 - Major Cultural Traditions I
- One course from:
  - LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
  - HNRS 104 - Major Cultural Traditions II
- LBRL 123 - The Western Tradition III: The Modern World
- LBRL 302 - Methods of Interdisciplinary Study

### Concentration 35 credits

- One course (5 credits) from:
  - LBRL 231 - Introduction to the Study of Religion
  - LBRL 243 - Art and Ideas
  - LBRL 265 - Science and Religion in American Culture
  - LBRL 281 - Representations of Otherness
  - LBRL 301 - Historical Methods in the Humanities
  - LBRL 303 - Methods in the Study of Religion
- Two courses (10 credits) from:
  - LBRL 271 - Humanities of India
  - LBRL 273 - Art and Society in China and Japan
  - LBRL 275 - Humanities of Japan
  - LBRL 276 - Humanities of Africa
  - LBRL 277 - Humanities of China
  - LBRL 278 - Humanities of Islamic Civilization
  - LBRL 345 - Fierce Goddesses of India
  - LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
  - LBRL 362 - Islam in the Indian Ocean World
  - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - LBRL 345, LBRL 360, LBRL 362, LBRL 372, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.
- Four courses (20 credits) under advisement from:

LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age

LBRL 323 - The Romantic Paradox: Love, Life and Death

LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion

LBRL 332 - World Religions

LBRL 333 - Religion in America

LBRL 334 - Hebrew Bible and the Religion of Ancient Israel

LBRL 336 - New Testament and Early Christianity

LBRL 338 - Mysticism

LBRL 340 - Sufism: The Islamic Mystical Tradition

LBRL 345 - Fierce Goddesses of India

LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern

LBRL 362 - Islam in the Indian Ocean World

LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context

LBRL 375 - Buddhism

LBRL 378 - Religion and Society in India

LBRL 380 - Religion and Society in China

LBRL 382 - Religion and Society in Japan

Or other appropriate upper-division courses in Humanities and Social Sciences, under advisement.

LBRL 345, LBRL 360, LBRL 362, LBRL 372, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.

### Thesis Option (16 credits)

Two courses (10 credits) from:

LBRL 421 - Traditional Indian Medicine

LBRL 422 - The Pursuit of Happiness: Philosophy, Literature, and the Good Life

LBRL 423 - Relations between Jewish and Christian Cultures in Europe, c. 1100-c. 1650

LBRL 424 - Exploring Apocalypticism

LBRL 425 - The City and the Early Modern Iberian World

LBRL 428 - Revival and Reform in the Islamic World

LBRL 498 - Readings for Research in Humanities

LBRL 499 - Research in Humanities

### Departmental Honors

BA Students who have completed LBRL 498 and LBRL 499, have a cumulative GPA of 3.3 in their major courses and receive a grade of 'B' or higher for their Senior Thesis meet the requirements for departmental honors.

## Humanities — Religion and Culture Concentration, BA

Department of Liberal Studies, College of Humanities and Social Sciences

### 68-70 credits

#### Introduction

The humanities include the disciplines which study philosophy, religion, history, literature, and the arts. The B.A. in Humanities, Religion and Culture Concentration, attracts students who want to major in more than one Humanities discipline, using interdisciplinary methods of investigation.

The Religion and Culture Concentration provides scholarly, critical, nonsectarian study of religions. Students study religious beliefs, practices, identities and organizations, and how they have influenced and been influenced by other aspects of society and culture. The concentration includes a broad survey of Western civilization as a basis for understanding its religious traditions. Students also become familiar with religious traditions in non-Western civilizations, and with their modern interactions and changes. Students study the origin, history, and methods of the academic study of religion as it has developed in Europe and North America. They are introduced to methodological issues in the study of religion, and learn to use methods appropriate to different kinds of problems.

## LIBERAL STUDIES

The small size of classes and seminars in the Humanities B.A. programs encourages close relationships between students and faculty. Working closely with faculty, students learn to formulate problems clearly, to consider and evaluate different methods and concepts, to do efficient and thorough research, and to write clearly, concisely and effectively, culminating in work in rigorous senior seminars.

For information or advisement, contact the Liberal Studies Office.

### Why Consider a Religion and Culture Concentration in the Humanities Major?

Students in this major acquire skills broadly applicable to professional careers. These include problem solving, critical thinking, research skills, integrative skills, and written and oral communications skills. While preparing students for knowledgeable participation in civic life, these also provide solid foundation for careers in both public and private settings. Graduates have gone on to a variety of professional graduate schools and fields of work, including teaching, law, library science, archive administration, and research and administrative positions with business and non-profit organizations. The major has also proved to be excellent preparation for graduate academic programs in the study of religion, as well as literature and history.

Students who plan a career in secondary education should contact the department for advising as soon as possible.

#### Contact Information

##### Program Advisor

Rob Stoops  
Bond Hall 170  
360-650-3047  
Rob.Stoops@wwu.edu

##### Academic Department Manager

Bond Hall 152  
360-650-3030

#### Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

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### Grade Requirements

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An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, LBRL 422, LBRL 423, LBRL 424 and LBRL 425. It is recommended that students undertake study of a foreign language concurrently with the major.

### Requirements

#### Core 18-20 credits

##### One course from:

LBRL 121 - The Western Tradition I: The Ancient World

HNRS 103 - Major Cultural Traditions I

##### One course from:

LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe

HNRS 104 - Major Cultural Traditions II

##### LBRL 123 - The Western Tradition III: The Modern World

##### LBRL 302 - Methods of Interdisciplinary Study

#### Concentration 35 credits



- ❑ LBRL 231 - Introduction to the Study of Religion
- ❑ Two courses (10 credits) from:
  - LBRL 265 - Science and Religion in American Culture
  - LBRL 271 - Humanities of India
  - LBRL 278 - Humanities of Islamic Civilization
  - LBRL 283 - Religion and Globalization
  - LBRL 340 - Sufism: The Islamic Mystical Tradition
  - LBRL 345 - Fierce Goddesses of India
  - LBRL 362 - Islam in the Indian Ocean World
  - LBRL 375 - Buddhism
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - LBRL 345, LBRL 362, LBRL 375, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.
- ❑ LBRL 303 - Methods in the Study of Religion
- ❑ Three courses (15 credits) from:
  - LBRL 301 - Historical Methods in the Humanities
  - LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age
  - LBRL 332 - World Religions
  - LBRL 333 - Religion in America
  - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
  - LBRL 336 - New Testament and Early Christianity
  - LBRL 338 - Mysticism
  - LBRL 345 - Fierce Goddesses of India
  - LBRL 362 - Islam in the Indian Ocean World
  - LBRL 375 - Buddhism
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - Other appropriate upper-division courses in the Humanities and Social Sciences, under advisement.
  - LBRL 345, LBRL 362, LBRL 375, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.

**Non-Thesis Option (15 credits)**

- ❑ Three courses (15 credits) from:
  - LBRL 421 - Traditional Indian Medicine
  - LBRL 422 - The Pursuit of Happiness: Philosophy, Literature, and the Good Life
  - LBRL 423 - Relations between Jewish and Christian Cultures in Europe, c. 1100-c. 1650
  - LBRL 424 - Exploring Apocalypticism
  - LBRL 425 - The City and the Early Modern Iberian World
  - LBRL 428 - Revival and Reform in the Islamic World

## Humanities — Religion and Culture Concentration, Thesis, BA

Department of Liberal Studies, College of Humanities and Social Sciences

**69-71 credits**

### Introduction

The humanities include the disciplines which study philosophy, religion, history, literature, and the arts. The B.A. in Humanities, Religion and Culture Concentration, Thesis, attracts students who want to major in more than one Humanities discipline, using interdisciplinary methods of investigation.

The Religion and Culture Concentration provides scholarly, critical, nonsectarian study of religions. Students study religious beliefs, practices, identities and organizations, and how they have influenced and been influenced by other aspects of society and culture. The concentration includes a broad survey of Western civilization as a basis for understanding its religious traditions. Students also become familiar with religious traditions in non-Western civilizations, and with their modern interactions and changes. Students study the origin, history, and methods of the academic study of religion as it has developed in Europe and North

## LIBERAL STUDIES

America. They are introduced to methodological issues in the study of religion, and learn to use methods appropriate to different kinds of problems.

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For information or advisement, contact the Liberal Studies Office.

### Why Consider a Religion and Culture Concentration, Thesis, in Humanities?

Students in this major acquire skills broadly applicable to professional careers. These include problem solving, critical thinking, research skills, integrative skills, and written and oral communications skills. These skills are developed to an even higher level when applied to the writing of a senior thesis. While preparing students for knowledgeable participation in civic life, they also provide solid foundation for careers in both public and private settings. Graduates have gone on to a variety of professional graduate schools and fields of work, including teaching, law, library science, archive administration, and research and administrative positions with business and non-profit organizations. The major has also proved to be excellent preparation for graduate academic programs in the study of religion, as well as literature and history.

Students who plan a career in secondary education should contact the department for advising as soon as possible.

#### Contact Information

##### Program Advisor

Rob Stoops  
Bond Hall 170  
360-650-3047  
Rob.Stoops@wwu.edu

##### Academic Department Manager

Bond Hall 152  
360-650-3030

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, LBRL 422, LBRL 423, LBRL 424 and LBRL 425. LBRL 498 (3 credits) should be taken with a Liberal Studies faculty member in the quarter prior to enrolling in LBRL 499 (3 credits), to prepare for the latter. It is recommended that students undertake study of a foreign language concurrently with the major.

### Requirements

#### Core 18-20 credits

- One course from:
  - LBRL 121 - The Western Tradition I: The Ancient World
  - HNRS 103 - Major Cultural Traditions I
- One course from:
  - LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
  - HNRS 104 - Major Cultural Traditions II
- LBRL 123 - The Western Tradition III: The Modern World
- LBRL 302 - Methods of Interdisciplinary Study

#### Concentration 35 credits

- LBRL 231 - Introduction to the Study of Religion
- Two courses (10 credits) from:
  - LBRL 265 - Science and Religion in American Culture

- LBRL 271 - Humanities of India
- LBRL 278 - Humanities of Islamic Civilization
- LBRL 283 - Religion and Globalization
- LBRL 340 - Sufism: The Islamic Mystical Tradition
- LBRL 345 - Fierce Goddesses of India
- LBRL 362 - Islam in the Indian Ocean World
- LBRL 375 - Buddhism
- LBRL 378 - Religion and Society in India
- LBRL 380 - Religion and Society in China
- LBRL 382 - Religion and Society in Japan
- LBRL 345, LBRL 362, LBRL 375, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.

LBRL 303 - Methods in the Study of Religion

Three courses (15 credits) from:

LBRL 301 - Historical Methods in the Humanities

LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden

Age

LBRL 332 - World Religions

LBRL 333 - Religion in America

LBRL 334 - Hebrew Bible and the Religion of Ancient Israel

LBRL 336 - New Testament and Early Christianity

LBRL 338 - Mysticism

LBRL 345 - Fierce Goddesses of India

LBRL 362 - Islam in the Indian Ocean World

LBRL 375 - Buddhism

LBRL 378 - Religion and Society in India

LBRL 380 - Religion and Society in China

LBRL 382 - Religion and Society in Japan

Other appropriate upper-division courses in the Humanities and Social Sciences, under advisement.

LBRL 345, LBRL 362, LBRL 375, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.

### **Thesis Option** (16 credits)

Two courses (10 credits) from:

LBRL 421 - Traditional Indian Medicine

LBRL 422 - The Pursuit of Happiness: Philosophy, Literature, and the Good Life

LBRL 423 - Relations between Jewish and Christian Cultures in Europe, c. 1100-c. 1650

LBRL 424 - Exploring Apocalypticism

LBRL 425 - The City and the Early Modern Iberian World

LBRL 428 - Revival and Reform in the Islamic World

LBRL 498 - Readings for Research in Humanities

LBRL 499 - Research in Humanities

### Departmental Honors

BA Students who have completed LBRL 498 and LBRL 499, have a cumulative GPA of 3.3 in their major courses and receive a grade of 'B' or higher for their Senior Thesis meet the requirements for departmental honors.

## Minor

### Arabic and Islamic Studies Minor

Department of Liberal Studies, College of Humanities and Social Sciences

#### 28-30 credits

#### Introduction

The Minor in Arabic and Islamic Studies provides intermediate instruction in Arabic, an introduction to the history of Islamic civilization, and upper division electives from several academic departments.

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## Why Consider an Arabic and Islamic Studies Minor?

This gives excellent background and linguistic skills to apply to an increasingly important part of the world community.

### Contact Information

#### Program Advisor

Jonathan Miran  
Bond Hall 166  
360-650-4867  
Jonathan.Miran@wwu.edu

#### Academic Department Manager

Bond Hall 152  
360-650-3030

### Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Contact the Liberal Studies office.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.5 or above is required in the Arabic courses.

## Requirements

- ARAB 201 - Intermediate Arabic
- ARAB 202 - Intermediate Arabic
- ARAB 203 - Intermediate Arabic
- One course from:
  - LBRL 278 - Humanities of Islamic Civilization
  - HIST 287 - Introduction to Islamic Civilization
- Select 8-10 credits of electives from the list below, or other electives under advisement, including ANTH 490 when it is taught as Islam and Conflict in Europe:
  - EAST 314 - The Mongols
  - FAIR 371B - Topics in Middle East Studies
  - HIST 405 - The Traditional Middle East
  - HIST 406 - Middle East, 1800 to the Present
  - HIST 407 - History of the Israel/Palestinian Conflict
  - HIST 488 - Modern Egypt, Libya and the Nile Valley
  - LBRL 340 - Sufism: The Islamic Mystical Tradition
  - LBRL 362 - Islam in the Indian Ocean World
  - LBRL 428 - Revival and Reform in the Islamic World
  - PLSC 271 - Introduction to International Relations

## Humanities Minor

Department of Liberal Studies, College of Humanities and Social Sciences

### 33-35 credits

### Introduction

The Minor in Humanities provides interdisciplinary study of the humanities (philosophy, religion, history, literature and the arts) in Western and other civilizations.

## Why Consider a Humanities Minor?

Solid background of knowledge for multiple cultural traditions.

### Contact Information

#### Program Advisor

Jonathan Miran  
Bond Hall 166  
360-650-4867  
Jonathan.Miran@wwu.edu

#### Academic Department Manager

Bond Hall 152  
360-650-3030

### Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Contact the Liberal Studies office.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- Two courses (8-10 credits) from:
  - LBRL 110 - Confession and Self-Promotion: Autobiography from Augustine to the Blogosphere
  - LBRL 121 - The Western Tradition I: The Ancient World or HNRS 103 - Major Cultural Traditions I
  - LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe or HNRS 104 - Major Cultural Traditions II
  - LBRL 123 - The Western Tradition III: The Modern World
- One course (5 credits) from:
  - LBRL 231 - Introduction to the Study of Religion
  - LBRL 243 - Art and Ideas
  - LBRL 265 - Science and Religion in American Culture
  - LBRL 281 - Representations of Otherness
  - LBRL 301 - Historical Methods in the Humanities
  - LBRL 303 - Methods in the Study of Religion
- One course (5 credits) from:
  - LBRL 232 - Myth and Folklore
  - LBRL 271 - Humanities of India
  - LBRL 273 - Art and Society in China and Japan
  - LBRL 275 - Humanities of Japan
  - LBRL 276 - Humanities of Africa
  - LBRL 277 - Humanities of China
  - LBRL 278 - Humanities of Islamic Civilization
  - LBRL 345 - Fierce Goddesses of India
  - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
  - LBRL 375 - Buddhism
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - LBRL 345, LBRL 372, LBRL 375, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.
- Three additional courses (15 credits) from:
  - LBRL 301 - Historical Methods in the Humanities
  - LBRL 302 - Methods of Interdisciplinary Study
  - LBRL 303 - Methods in the Study of Religion

## LIBERAL STUDIES

LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age

LBRL 323 - The Romantic Paradox: Love, Life and Death

LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion

LBRL 332 - World Religions

LBRL 334 - Hebrew Bible and the Religion of Ancient Israel

LBRL 336 - New Testament and Early Christianity

LBRL 338 - Mysticism

LBRL 340 - Sufism: The Islamic Mystical Tradition

LBRL 345 - Fierce Goddesses of India

LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern

LBRL 362 - Islam in the Indian Ocean World

LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context

LBRL 375 - Buddhism

LBRL 378 - Religion and Society in India

LBRL 380 - Religion and Society in China

LBRL 382 - Religion and Society in Japan

LBRL 421 - Traditional Indian Medicine

LBRL 422 - The Pursuit of Happiness: Philosophy, Literature, and the Good Life

LBRL 423 - Relations between Jewish and Christian Cultures in Europe, c. 1100-c. 1650

LBRL 425 - The City and the Early Modern Iberian World

LBRL 428 - Revival and Reform in the Islamic World

And other appropriate courses under advisement.

LBRL 345, LBRL 372, LBRL 375, LBRL 378, LBRL 380 and LBRL 382 may be counted in one group only.

### Study of Religion Minor

Department of Liberal Studies, College of Humanities and Social Sciences

**30 credits**

#### Introduction

The Minor in the Study of Religion provides scholarly, critical, nonsectarian study of religions. Students study religious beliefs, practices, identities and organizations, and how they have influenced and been influenced by other aspects of society and culture.

For advisement regarding the minor, contact the Liberal Studies Office.

#### Why Consider a Study of Religion Minor?

Solid knowledge and understanding of a key facet of human history, societies, and cultures.

#### Contact Information

##### Program Advisor

Jonathan Miran

Bond Hall 166

360-650-4867

Jonathan.Miran@wwu.edu

##### Academic Department Manager

Bond Hall 152

360-650-3030

#### Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Contact the Liberal Studies office.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ❑ LBRL 231 - Introduction to the Study of Religion
- ❑ Two courses (10 credits) from:
  - LBRL 232 - Myth and Folklore
  - LBRL 265 - Science and Religion in American Culture
  - LBRL 271 - Humanities of India
  - LBRL 278 - Humanities of Islamic Civilization
  - LBRL 283 - Religion and Globalization
- ❑ Three courses (15 credits) from:
  - LBRL 303 - Methods in the Study of Religion
  - LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden

### Age

- LBRL 332 - World Religions
  - LBRL 333 - Religion in America
  - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
  - LBRL 336 - New Testament and Early Christianity
  - LBRL 338 - Mysticism
  - LBRL 340 - Sufism: The Islamic Mystical Tradition
  - LBRL 345 - Fierce Goddesses of India
  - LBRL 362 - Islam in the Indian Ocean World
  - LBRL 375 - Buddhism
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - LBRL 421 - Traditional Indian Medicine
  - LBRL 423 - Relations between Jewish and Christian Cultures in Europe, c. 1100-c. 1650
  - LBRL 424 - Exploring Apocalypticism
  - LBRL 428 - Revival and Reform in the Islamic World
- And other appropriate courses under advisement.

## Liberal Studies Courses

### **LBRL 110 - Confession and Self-Promotion: Autobiography from Augustine to the Blogosphere**

An examination of the historical origins of autobiographical writing in the European tradition, this class considers how individuals have imagined both themselves and their relationships to society. Through visual media (such as portraiture) and various written genres (from letters to trial records to essays), this class uses an interdisciplinary approach to introduce some important themes in European cultural history.

**Prerequisites & Notes:** Freshman status

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 121 - The Western Tradition I: The Ancient World**

This course studies the Near Eastern and Mediterranean origins of Western culture through an examination of Mesopotamian, Hebrew, Greek,

and Roman sources. It considers ancient world views and conceptions of what it meant to be human. Sections explore such varied topics as debates about knowledge and ideas about justice, gender, mortality and immortality; they treat the organization of ancient societies and their production of visual arts and architecture. Readings often include selections from the Epic of Gilgamesh and the Hebrew Bible, Greek plays, the Iliad or Odyssey, Plato, and Virgil's Aeneid.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe**

This course is an introduction to the cultural history of medieval and early modern Europe (from the 4th to the 18th centuries) through an analysis of a wide variety of sources. It examines works of visual art, philosophy, rhetoric, literature, history, and religion, and considers a range of themes, from pilgrimage and the interaction between the sacred and the profane to disputes about authority, religious conflict, and imperial

## LIBERAL STUDIES

expansion. Readings may include works by Augustine, Marie de France, Christine de Pizan, Erasmus, Camões, Shakespeare or Cervantes; all sections include Dante.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 123 - The Western Tradition III: The Modern World**

This course explores the construction of modernity. As an introduction to modern Western culture from the 18th century to the present, it examines such modern ideologies as feminism, Romanticism, and nationalism. This course considers a spectrum of views of the individual, of progress, and of the alienation and integration of the individual in society. Many sections include study of films and other material from the visual arts. Readings often include novels, and the writings of Freud, Marx, Nietzsche, Mill, Baudelaire, and Rousseau.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 231 - Introduction to the Study of Religion**

Introduction to the academic study of religion. An exploration of beliefs, practices and institutions through case studies drawn from religions around the world. Introduction to scholarly perspectives and theories of religion.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 232 - Myth and Folklore**

An introduction to the study of myth and folklore and its cultural impact.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 243 - Art and Ideas**

A study of Western humanities through the visual arts, sculpture, painting and architecture. Exploration of the values expressed through choices of style and subject matter in selected cultural periods.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 265 - Science and Religion in American Culture**

Introduction to issues in the relationship between science and religion in American culture over the past 200 years.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 271 - Humanities of India**

The Indian experience and the development of its cultural unity; the challenge of Islam and the British colonial experience; the conditions of modernization and the emerging synthesis of values.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 273 - Art and Society in China and Japan**

Studies of the aesthetic traditions of East Asia, courtly and popular, secular and religious; the impact of foreign ideas and the role of art in recent propaganda, architecture and industrial design as well as in traditional modes of expression.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 275 - Humanities of Japan**

Interdisciplinary introduction to Japanese civilization, both traditional and modern, with particular emphasis on religions; historical, artistic, and literary patterns; and societal and cultural ideals.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 276 - Humanities of Africa**

Introduction to the cultural heritage of sub-Saharan Africa and to the contemporary civilization that draws upon it; emphasis on the process by which Africans currently build and use coherent accounts of their heritage.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 277 - Humanities of China**



Interdisciplinary introduction to Chinese civilization, traditional and modern. Emphasis on religions; intellectual, artistic and literary patterns; and societal and cultural ideals.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

#### **LBRL 278 - Humanities of Islamic Civilization**

Interdisciplinary introduction to Islamic Civilizations with an emphasis on shared religious, cultural, and societal ideals and their adaptation in various historical and geographic contexts.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

#### **LBRL 281 - Representations of Otherness**

Examination of images and narratives of the Other in major works of modern literature, art and film from the 19th century to the present. Themes include the roles of the unconscious, languages, gender and politics in the construction and destruction of self and others.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

#### **LBRL 283 - Religion and Globalization**

Focus on religious responses to globalization through case studies of modern religious movements. Case studies will be chosen to explore cultural interaction and religious change in a world shaped by technological revolutions and increased communication, information, and migration.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

#### **LBRL 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### **LBRL 301 - Historical Methods in the Humanities**

Methods of cultural and intellectual history. Locating texts in their historical and cultural contexts by analyzing their authors, audiences and arguments.

**Prerequisites & Notes:** One from: LBRL 121, LBRL 122, LBRL 123, HIST 111, HIST 112, HIST 113.

**Credits:** 5  
**Grade Mode:** Letter

#### **LBRL 302 - Methods of Interdisciplinary Study**

Exploration of techniques of interdisciplinary investigation through analysis of a major literary text in its cultural and historical context; exercises in the use of the library as a research tool; preparation of a seminar paper. Ordinarily offered spring quarter only.

**Prerequisites & Notes:** LBRL 121, LBRL 122; average grade of B in LBRL courses and permission of instructor.

**Credits:** 5  
**Grade Mode:** Letter

#### **LBRL 303 - Methods in the Study of Religion**

An examination of the academic study of religion as a problem in the interaction of theory, method, and the history of culture. Consideration of various approaches to understanding and explaining religion from the Enlightenment to the present.

**Prerequisites & Notes:** One course from LBRL 231, LBRL 271, LBRL 278, LBRL 380, LBRL 382 or permission of instructor.

**Credits:** 5  
**Grade Mode:** Letter

#### **LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age**

Early modern Spain has simultaneously been perceived as an artistic Golden Age (which saw a flourishing production of plays, verse, and prose) and as an era in which censorship and religious intolerance closed off Spain and its empire to the wider world. The course explores this central paradox in Spanish religious, cultural and intellectual history, through an interdisciplinary examination of various literary genres, trial records, painting and architecture. It examines the foundation of the Spanish Inquisition in a society which included Christians, Muslims, and Jews; it traces the development of Catholic laws and courts both in European contexts and in Spain's American colonies.

**Prerequisites & Notes:** One LBRL course or HIST 112 or HNRS 104 or instructor permission.

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**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 323 - The Romantic Paradox: Love, Life and Death**

Study of Romanticism as a complex, international cultural movement originating in the late 18th century with continuing vitality and influence into the present. Exploration of characteristic Romantic tensions: the desire for unity, harmony, infinity and beauty vs. the experience of fragmentation, limitation and loss. Analysis of texts and films representing various facets of the Romantic mind.

**Prerequisites & Notes:** Junior or senior status recommended.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion**

This course will trace the concept of surveillance and its connection to voyeurism as the primordial desire to see from the 18th century to the present. Through careful reading of primary and secondary sources of literature, sociology, philosophy, history, journalism, and film studies and analysis of visual material, this course will examine the paradox within the concept of surveillance which can be understood as a means to implement security and insure peace as well as constitute a threat to private and civic rights and freedoms. Formally, the course will alternate between the analysis of visual material and printed material. Class time is divided into lecture, organized class discussion and student presentations.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 332 - World Religions**

Beliefs and practices of major world religions; development of religious traditions; historical and phenomenological approaches; religion in modern society.

**Prerequisites & Notes:** Junior or senior status recommended.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 333 - Religion in America**

Religious traditions, values and institutions in American culture; focus on pluralism; attention to

contemporary issues and events; interdisciplinary perspective.

**Prerequisites & Notes:** Junior or senior status recommended.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 334 - Hebrew Bible and the Religion of Ancient Israel**

A survey of representative sections of the Hebrew Bible (the Old Testament for Christians) and related literature. Biblical texts are analyzed as expressions of the ways in which groups or individuals understood themselves, their world, and God. The historical and cultural contexts in which the texts were originally written are emphasized with attention to the ways that elements of the Biblical tradition developed under changing historical circumstances.

**Prerequisites & Notes:** Junior status

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 336 - New Testament and Early Christianity**

A survey of the New Testament and related early Christian literature. The texts are analyzed as expressions of the ways in which groups or individuals understood themselves, their world, and God. The historical and cultural contexts in which the texts were written are emphasized with attention to the variety of early Christian traditions and their development under changing historical circumstances.

**Prerequisites & Notes:** Junior status

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **LBRL 338 - Mysticism**

An interdisciplinary exploration of the nature and variety of mysticism. Theoretical debates concerning the psychological roots and cultural conditioning of mysticism. Includes an examination of important mystics in the Christian, Islamic and East Asian traditions along with their significance for their respective societies.

**Prerequisites & Notes:** Junior status or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**LBRL 340 - Sufism: The Islamic Mystical Tradition**

This course explores the Islamic mystical tradition, or Sufism. For long centuries Sufism has contributed to the development of Islamic religious thought, to the global diffusion of the faith, and to the shaping of religious experiences and practices of Muslims in the Middle East, Africa and Asia. It has also enriched the creative and aesthetic aspects of Islamic civilization, most notably music and poetry. We will examine Sufi devotional practices and rituals, teachings of some spiritual masters, and the historical development and growth of Sufism and Sufi orders.

**Prerequisites & Notes:** Junior status; ENG 101 and 30 credits; and one course from: LBRL 231, LBRL 271, LBRL 278, LBRL 332, LBRL 378, or HIST 287, HIST 406; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** CCOM

**LBRL 345 - Fierce Goddesses of India**

An analysis of South Asian goddess traditions, with an emphasis on the frequently misunderstood 'fierce' goddesses. Students will engage with these traditions through historical sketches, analysis of art, scriptures, and devotional poetry, and ethnographic studies of contemporary goddess worship. The course is grounded with readings and lectures on feminism and the historical biases which have undercut study and representation of goddess traditions.

**Prerequisites & Notes:** Junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern**

The focus of this course will be early stages of the unfolding of 'globalization' in Eurasia, from antiquity into the early modern period, with particular attention given to China's important role in these developments, and how it was affected in turn. Also offered as EAST 360.

**Prerequisites & Notes:** Junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**LBRL 362 - Islam in the Indian Ocean World**

Explores cross cultural contacts in the Indian

Ocean world from East Africa, Arabia and the Persian Gulf to South and Southeast Asia, and the history and role of Islam and Muslims from the 14th century to the present. Focuses on texts by or about Muslim travelers — Sufis, pilgrims, scholars, and merchants — and their creation of networks, identities, and Muslim spaces, to show that some aspects of globalization have a long history in the Indian Ocean.

**Prerequisites & Notes:** Junior status or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context**

Critical readings of postcolonial novels. Close attention to how they have been shaped as artistic wholes, and how they try to shape emotions and beliefs of readers. Reading beyond the novels about contexts which they assume and incompletely express: change and the absence of change in postcolonial societies.

**Prerequisites & Notes:** Junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**LBRL 375 - Buddhism**

Beginning with a broad overview of the teachings of Buddhism and its core beliefs and practices, this course will then turn to detailed study of the doctrines and institutions of particular Buddhist traditions.

**Prerequisites & Notes:** Junior status or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**LBRL 378 - Religion and Society in India**

Examination of major Indian religious traditions, including Hinduism, Islam, Buddhism, Jainism, and Sikhism. Emphasis on ritual systems, belief and value systems, and systems of social identification; emphasis on the relation of religion to social and gender identities, communal politics, and social change, in the classical and modern periods.

**Prerequisites & Notes:** Junior status or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

## LIBERAL STUDIES

### **LBRL 380 - Religion and Society in China**

A detailed examination of the major religious and philosophical traditions of pre-modern China: the native traditions of Confucianism, Daoism, ancestor worship and popular religion, as well as Buddhism, which came to East Asia from India. Particular attention is given to the interaction and intertwining of these traditions, and of the ways they shaped and supported the lives of individuals and communities.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 382 - Religion and Society in Japan**

A detailed examination of the major religious and philosophical traditions of Japan: the agrarian religion of Shintoism, the Confucian system of ethics, imported from China, and Buddhism, which though originally from India also came to Japan through China. Particular attention is given to the interaction and intertwining of these traditions, and of the ways they shaped and supported the lives of individuals and communities.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **LBRL 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **LBRL 421 - Traditional Indian Medicine**

Advanced seminar on traditional medicine in South Asia. Emphasis on theories of medicine and approaches to the study of traditional medical systems from the perspective of the humanities and social sciences. Topics may include theory and practice of Ayurveda, Siddha, Tantra, Unani, Homeopathy, and specific issues such as approaches to pregnancy, childbirth, and mental health in India and abroad, from pre-colonial India to recent times. Students conduct a research project in consultation with the instructor and apply methodologies from a variety of disciplines to evaluate complex cultural issues.

**Prerequisites & Notes:** LBRL 302 or instructor

permission.

**Credits:** 5

**Grade Mode:** Letter

### **LBRL 422 - The Pursuit of Happiness: Philosophy, Literature, and the Good Life**

This seminar examines the intersection and cross-fertilization of philosophy and literature in modern European and American culture. At the center of our investigation is one of the fundamental questions regarding the purpose and value of human existence: how do we define happiness and what constitutes the good life? Inquiry into this question departs from the Socratic stance, which promotes the relentless practice of critical self-awareness in our pursuit of knowledge, wisdom, virtue and happiness.

**Prerequisites & Notes:** LBRL 302 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **LBRL 423 - Relations between Jewish and Christian Cultures in Europe, c. 1100-c. 1650**

A seminar in which we investigate some of the many ways in which Jewish and Christian cultures influenced each other - through individuals, texts, institutions, and communities - during formative periods in the history of medieval and early modern Europe. Through analysis and interpretation of select sources, we will study several aspects of Jewish-Christian interaction - some singular, some episodic, some ongoing - including legal structures regulating relations between Jews and Christians, forms of direct cultural exchange (ideas, beliefs, practices, etc.), individual cases of religious conversion, uses of polemical literature, episodes of inter-communal violence, and the manifestation of concerns with purity and exclusion.

**Prerequisites & Notes:** LBRL 302 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **LBRL 424 - Exploring Apocalypticism**

This course seeks to understand the social phenomenon of millenarianism. Apocalyptic social movements typically hold beliefs that stand at odds with their culture, and often material reality. Outbreaks of cosmic expectation happen at moments of cultural encounter and rapid change. As a result, millennial expectation often is associated with social radicalism and extremism, and sometimes is a factor in religious violence. This course uses case studies from new religious movements and historic events in established

world religions to explore these issues. By introducing students to a broad base of theorists and methodologies, this class cultivates an interdisciplinary understanding of the humanities and social sciences. Students in LBRL 424 will both engage in historiographic debate and pursue research projects of their own.

**Prerequisites & Notes:** LBRL 302 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **LBRL 425 - The City and the Early Modern Iberian World**

This seminar explores the interconnected histories of the cities of the Hispanic and Portuguese worlds in the early modern era. Examining the intersection of urban history and the development of the global empires of Spain and Portugal between the 15th and the 18th centuries, the course considers such topics as colonialism, migration, gender, race, religion, and political culture. The construction of civic identities will also be approached through the study of early modern architecture, painting, music, and literature.

**Prerequisites & Notes:** LBRL 302 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **LBRL 428 - Revival and Reform in the Islamic World**

An exploration of the ideological foundations and historical contexts of reform movements in the Middle East, Asia and Africa from the 18th century up to the various contemporary Salafi movements commonly recognized as fundamentalist. Islamic responses to imperialism, colonialism, and modernization through the analysis of texts written by major Muslim modernist and revivalist thinkers such as al-Afghani, Sayyid Ahmad Khan, Abduh, Mawdudi, Qutb, Khomeini and others.

**Prerequisites & Notes:** One from: LBRL 231, LBRL 271, LBRL 278, LBRL 332, LBRL 378, HIST 287.

**Credits:** 5

**Grade Mode:** Letter

### **LBRL 430 - The Humanities and the Contemporary Workplace**

Connects liberal-arts curriculum to workplace issues. Introduces students to professional work environments through placement in local non-profit agencies. Carries service-learning credit.

**Prerequisites & Notes:** Permission of Instructor.

**Credits:** 3

**Grade Mode:** Letter

### **LBRL 498 - Readings for Research in Humanities**

Readings in Humanities under advisement in preparation for writing senior paper. Students develop a reading schedule and meet weekly with their faculty advisor; prepare and submit a formal proposal for the senior paper, on a topic developed by the student in consultation with their faculty advisor.

**Prerequisites & Notes:** Senior status. LBRL 302; and one course from: LBRL 421, LBRL 422, LBRL 423, LBRL 424 or concurrent; permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **LBRL 499 - Research in Humanities**

Research and writing of a formal paper on a topic developed by the student in consultation with a faculty advisor. LBRL 498, Readings for Research in Humanities (3), required in the quarter prior to LBRL 499.

**Prerequisites & Notes:** Senior status. One course from LBRL 421, LBRL 422, LBRL 423, LBRL 424, LBRL 498, permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

# Linguistics

## Introduction

Linguistics, the science of language, is an interdisciplinary field that relates to the diversity of the cultures and languages of the world. It is an integral part of most serious pursuits dealing with aspects of language study and/or analysis. As the boundaries of the world change, an understanding of individual languages and cultures becomes increasingly more important. Communication in this complex society requires knowledge of the workings of languages as well as their interrelationship with their respective cultures. All linguistics majors are expected to acquire a rudimentary knowledge of the functions of language at various levels and knowledge of the techniques/methods used in language analysis. A student of linguistics will thereby significantly advance his/her appreciation of linguistic and cultural diversity.

Students interested in pursuing a major or minor in linguistics should contact Kristin Denham, Humanities 357, 360-650-3217, email [kristin.denham@wwu.edu](mailto:kristin.denham@wwu.edu). Website: [chss.wwu.edu/linguistics](http://chss.wwu.edu/linguistics).

## Faculty

**KRISTIN DENHAM**, Director. English. Syntactic theory, linguistics in education, psycholinguistics, Native American languages.

**MASANORI DEGUCHI**, Modern and Classical Languages. Japanese linguistics, syntax and semantics.

**SHANNON DUBENION-SMITH**, Modern and Classical Languages. Germanic linguistics, variationist, linguistics, dialect and regiolect syntax, historical syntax, Pennsylvania Dutch.

**JENNIFER GREEN**, Director ELL Endorsement. English linguistics for educators, academic language, teaching methodologies.

**SHAW N. GYNAN**, Modern and Classical Languages. Hispanic linguistics, sociolinguistics, second language acquisition, syntax and phonology.

**TODD HASKELL**, Psychology. Psychology of language, visual and auditory perception, cognition.

**JAMES W. HEARNE**, Computer Science. General linguistics, computational linguistics, narratology.

**BRIAN HUTCHINSON**, Computer Science. Speech and language processing, machine learning, optimization.

**MCNEEL JANTZEN**, Psychology. Cognition, speech perception, language acquisition.

**CHRISTINA KEPPIE**, Modern and Classical Languages. Applied French linguistics, sociolinguistics, general linguistics.

**YUDONG LIU**, Computer Science. Statistical natural language processing, eye-tracking applications.

**ANNE LOBECK**, English. Syntactic theory, language and gender, language ideology and discrimination, language and identity.

**JUDITH M.S. PINE**, Anthropology. Linguistics anthropology, semiotics, language and identity.

**JORDAN SANDOVAL**, Linguistics. Semantics, phonology, phonetics.

**TRISH SKILLMAN**, TESOL. Language, teaching methodologies, sociolinguistics, second language acquisition.

**EDWARD J. VAJDA**, Modern and Classical Languages. Morphology, language typology, historical-comparative linguistics.

**KATHRYN VULIC**, English. History of the English language, Old English in translation, medieval literatures and cultures.

**RYAN WASSERMAN**, Philosophy. Metaphysics, philosophy of language, epistemology, ethics.

**SUZI WRIGHT**, TESOL. Second language acquisition, language/education policy, First People's language revitalization, psycholinguistics, discourse analysis, functional linguistics.

**JANET ZHIQUN XING**, Modern and Classical Languages. Chinese linguistics, historical linguistics, discourse analysis, second language acquisition.

## Linguistics Area Advisors:

**English** — Kristin Denham, Anne Lobeck

**Anthropology** — Judy Pine

**Communication Sciences and Disorders** — Kimberly Peters

**Computer Sciences** — James W. Hearne

**Modern and Classical Languages** — Shaw N. Gynan

**Philosophy** — Ryan Wasserman

**Psychology** — Todd Haskell

**TESOL** — Trish Skillman

# Bachelor of Arts

## Linguistics, BA

Program in Linguistics, College of Humanities and Social Sciences

**57-89 credits**

## Introduction

Linguistics, the science of language, is an interdisciplinary field which relates to the diversity of the cultures and languages of the world. It is an integral part of most serious pursuits dealing with aspects of language study and analysis. As the boundaries of the world change, an understanding of individual languages and cultures becomes increasingly important. Communication in this complex society requires knowledge of the workings of languages, as well as their interrelationship with their respective cultures.

## Why Consider a Linguistics Major?

All Linguistics majors are expected to acquire knowledge of the functions of language at various levels and knowledge of the techniques and methods used in language analysis. A student of Linguistics will thereby significantly advance his or her appreciation of linguistic and cultural diversity. Students who major in linguistics acquire valuable intellectual skills, including analytic reasoning and argumentation, and learn how to study language scientifically. This means making insightful observations, formulating and testing clear hypotheses, making arguments and drawing conclusions, and communicating findings to a wider community. Linguistics majors are therefore well equipped for a variety of jobs and graduate-level programs.

### Contact Information

#### Linguistics Director

Kristin Denham  
Humanities 357  
360-650-3217  
Kristin.Denham@wwu.edu

### Sample Careers

Higher Education research and teaching: linguistics, philosophy, psychology, speech sciences, anthropology, computer science, English, modern and classical languages | K-12 Teaching (World Languages, ESL, literacy) | Computer Industry (speech recognition, natural language processing, AI) | Translating and Interpreting | Language documentation and fieldwork | Publishing (editing, writing) | Lexicography (dictionary research and editing) | Law (forensic linguistics)

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

- LING 201 or ENGL 370 or TESL 401 or ANTH 247 with a grade of "B-" or better
- Minimum cumulative GPA of at least 2.5.

Students should contact the Linguistics Director when ready to declare the major.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

To declare a major in linguistics, students must have completed the introductory course (LING 201 or ENG 370 or TESL 401 or ANTH 247) with a grade of B- or better and have a minimum overall GPA of at least 2.5.

## Requirements

- For native speakers of Indo-European languages, one year of a non-IE language (such as Chinese, Japanese, or others under advisement) or second year of an Indo-European language; alternative arrangements may be made for native speakers of non-Indo-European languages (12-15 credits).
- One course from:
  - ANTH 247 - Introduction to Linguistic Anthropology
  - ENG 370 - Introduction to Language
  - LING 201 - Introduction to Language and Linguistics
  - TESL 401 - Introduction to English Linguistics for TESOL

# LINGUISTICS

- One course from:
  - LING 204 - Sociolinguistics
  - ENG 270 - Language and Society
- LING 310 - Introduction to Linguistic Analysis
- LING 311 - Phonetics and Phonology
- LING 321 - Syntax
- Three LING 400-level courses, including at least two from:
  - LING 411 - Topics in Phonetics and Phonology
  - LING 421 - Topics in Morphology and Syntax
  - LING 431 - Topics in Semantics and Pragmatics

## Concentration

Additional credit concentration with at least one additional upper division course in related department under advisement:

### Anthropology Concentration

- ANTH 347 - The Ethnography of Communication
- ANTH 447 - Anthropological Semiotics
- At least one other elective under advisement.

### Communication Sciences and Disorders Concentration

- Selected courses under advisement from:
  - CSD 352 - Anatomy and Physiology of Speech Mechanisms
  - CSD 353 - Speech Science
  - CSD 354 - Speech and Language Development in Children
  - CSD 356 - Phonetics and Phonology
  - CSD 361 - Language Disorders, Birth to Five
  - CSD 451 - Language Disorders II

### Computer Science Concentration

- Applicable courses in computational linguistics under departmental advisement
- Additional work under advisement

### English Concentration

- Selected courses under advisement from:
  - ENG 436 - The Structure of English
  - ENG 438 - Cultural History of English
  - ENG 439 - Topics in Language and Linguistics

### Modern and Classical Languages Concentration options

Prerequisites: at least two years of study of one of the languages; specific requirements vary by language. Consult an advisor.

#### Chinese Linguistics

- CHIN 304 - Chinese Grammar and Composition
- CHIN 402 - Chinese Language and Linguistics
- At least one other course under advisement.

#### French Linguistics

- FREN 314 - Phonetics



- FREN 401 - Elements De Stylistique
- At least one other course under advisement.

#### German Linguistics

- GERM 314 - Phonetics
- GERM 401 - Advanced German: Contexts & Cultures II
- At least one other course under advisement.

#### Japanese Linguistics

- JAPN 401 - Advanced Japanese
- At least two other courses under advisement.

#### Russian Linguistics

- RUSS 214 - Russian Phonetics
- At least two other courses under advisement.

#### Spanish Linguistics

- SPAN 314 - Phonetics
- SPAN 401 - Advanced Grammar
- At least one other course under advisement.

#### World Language Instruction

- Two upper-division courses in one language (Chinese, French, German, Japanese, Russian, Spanish, Classics, others under advisement).
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- At least one other course under advisement.

#### Philosophy Concentration

- PHIL 102 - Introduction to Logic
- PHIL 202 - Intermediate Logic
- PHIL 403 - Philosophy of Language

#### Psychology Concentration

- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- PSY 220 - Behavioral Neuroscience
- PSY 301 - Overview of Research Methods
- PSY 318 - Language, Brain, and Mind

#### TESOL Concentration

- Completion of the TESOL minor coursework under advisement.

## Minor

### Linguistics Minor

Linguistics Program, College of Humanities and Social Sciences

# LINGUISTICS

**24 credits**

## Contact Information

### Linguistics Director

Kristin Denham  
Humanities 341  
360-650-3217  
Kristin.Denham@wwu.edu

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- One course from:
  - LING 201 - Introduction to Language and Linguistics
  - ENG 370 - Introduction to Language
  - TESL 401 - Introduction to English Linguistics for TESOL
- One course from:
  - LING 204 - Sociolinguistics
  - ENG 270 - Language and Society
- LING 310 - Introduction to Linguistic Analysis
- LING 311 - Phonetics and Phonology
- LING 321 – Syntax

## Linguistics Courses

### LING 201 - Introduction to Language and Linguistics

Introduction to the scientific study of language and the various subfields of linguistics, including how language is acquired, how it varies across time and space, and how it is used in different social contexts.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

### LING 204 - Sociolinguistics

Examines the relationship between society and language, concentrating on the following areas: address forms, variation theory, language use, sociolinguistics and education, multilingualism, language policy and language attitudes.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### LING 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### LING 310 - Introduction to Linguistic Analysis

Focused introduction to linguistic analysis in phonetics, phonology, morphology, syntax and semantics in English and other languages, in preparation for more in-depth courses in theory and analysis in the linguistics major.

**Prerequisites & Notes:** ANTH 247 or ENG 370 or LING 201 or LING 204

**Credits:** 5

**Grade Mode:** Letter

### LING 311 - Phonetics and Phonology

Exploration of basic phonetic units and phonological patterns across languages and the theoretical principles proposed to explain them.

**Prerequisites & Notes:** LING 310

**Credits:** 5

**Grade Mode:** Letter

### LING 321 - Syntax

Exploration of basic syntactic structures and operations across languages and the theoretical principles proposed to explain them.

**Prerequisites & Notes:** LING 310

**Credits:** 5

**Grade Mode:** Letter

### LING 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### LING 402 - Topics in Linguistics

Readings and/or directed research as determined by instructor. Variable topic. Repeatable.

**Prerequisites & Notes:** LING 310

**Credits:** 3-5

**Grade Mode:** Letter

### LING 411 - Topics in Phonetics and Phonology

Exploration of phonetic and/or phonological phenomena across languages. Repeatable with different topics up to 10 credits including original course.

**Prerequisites & Notes:** LING 311

**Credits:** 5

**Grade Mode:** Letter

### LING 421 - Topics in Morphology and Syntax

Exploration of morphological and/or syntactic phenomena across languages. Repeatable with different topics up to 10 credits including original course.

**Prerequisites & Notes:** LING 321

**Credits:** 5

**Grade Mode:** Letter

### LING 425 - Linguistics Tutoring and Class Support

Selected students will work with faculty members

to provide assistance in LING 201 or LING 204. Permission may also be given to assist with other linguistics courses completed with a grade of B or better. Students may be requested to lead group sessions or work with students individually. Expertise in phonetics/phonology or morphology/syntax is required. S/U grading.

**Prerequisites & Notes:** LING 310, LING 311 and LING 321 with a grade of B or better; and instructor permission.

**Credits:** 2

**Grade Mode:** S/U

### LING 431 - Topics in Semantics and Pragmatics

Exploration of semantics and pragmatics across languages. Repeatable with different topics up to 10 credits including original course.

**Prerequisites & Notes:** LING 310

**Credits:** 5

**Grade Mode:** Letter

# Modern and Classical Languages

## Introduction

The Department of Modern and Classical Languages, in fulfillment of the University's stated goals, provides to Western Washington University students the skills that are necessary to learn first-hand about world societies. To that end, the department believes that the best way to understand a culture is directly through its language(s). Therefore, the department offers students the opportunity to acquire three types of proficiencies: the language skills that make for successful communication, the cultural competencies that build global respect and responsibility, as well as the creative and interpretive aptitudes that underscore an understanding of the history and aesthetic expressions of a given culture. Ultimately, students graduate from the department with valuable skills for succeeding in the workplace and for supporting global citizenship.

## Faculty

**MARÍA PAREDES MÉNDEZ** (2002) Chair and Associate Professor of Spanish. MA, PhD, University of Kansas.

**SANDRA ALFERS** (2008) Professor of German. BA, MA, University of Nebraska; PhD, University of Massachusetts.

**BLANCA ARANDA** (2012) Assistant Professor of Spanish. BA Universidad Mayor de San Andrés; MA and PhD University of Oregon.

**BRENT J. CARBAJAL** (1997) Professor of Spanish and Provost. BA, Lewis and Clark College; MA, PhD, University of Washington.

**MASANORI DEGUCHI** (2006) Associate Professor of Japanese and Linguistics. BA, Kansai Gaidai University; MA, PhD, Indiana University.

**SHANNON DUBENION-SMITH** (2008) Associate Professor of German and Linguistics. BA University of Michigan-Ann Arbor; MA, PhD, University of Wisconsin-Madison.

**EDUARDO ENGELSING** (2015) Assistant Professor of Classical Studies. MA, University of Kentucky; MA, University of Cádiz; PhD, University of Cádiz.

**PETRA S. FIERO** (1995) Professor of German. MA, PhD, University of Nebraska, Lincoln.

**HUGO GARCÍA** (2006) Associate Professor of Spanish. BA, University of Havana, Cuba; MA, St. John's University; PhD, Ohio State University.

**SHAW N. GYNAN** (1986) Professor of Spanish and Linguistics. BS, Georgetown University; MA, University of Texas-El Paso; PhD, University of Texas-Austin.

**VICKI L. HAMBLIN** (1989) Professor of French

and Director of the Institute for Global Engagement. BS, Southwest Missouri State University; MA, Arizona State University; PhD, University of Arizona.

**CÉCILE HANANIA** (2002) Professor of French. PhD, University of Maryland; Doctorat, Université Paris; Maitrise, Université de Provence.

**JOAN M. HOFFMAN** (1994) Professor of Spanish. BA, University of Washington; MA, University of North Carolina-Chapel Hill; PhD, Indiana University.

**CHRISTINA KEPPIE** (2008) Associate Professor of French and Linguistics. BA University of New Brunswick; MA Carleton University; PhD, University of Alberta.

**COLLEEN LAIRD** (2016) Assistant Professor of Japanese. BA, Macalester College; MA, PhD, University of Oregon.

**EDWARD OUSSELIN** (2001) Professor of French. MBA, University of Kentucky; PhD, Ohio State University.

**CORNELIUS PARTSCH** (2003) Professor of German. MA, PhD, Brown University.

**CHARLES PATTERSON** (2012) Associate Professor of Spanish. BA, Utah State University; MA, University of New Mexico; PhD, University of Texas at Austin.

**DANIEL RANGEL GUERRERO** (1969) Associate Professor of Spanish. AA, Sierra College; BA, Stanford University; MA, PhD, University of Oregon.

**MASSIMILIANO TOMASI** (1998) Professor of Japanese and Director of the East Asian Studies Program. Laurea (BA), University of Florence, Italy; MA, PhD, Nagoya University, Japan.

**EDWARD J. VAJDA** (1987) Professor of Russian and Linguistics. BA, Indiana University; MA, PhD, University of Washington.

**JANET Z. XING** (1999), Professor of Chinese and Linguistics. BA, Shanxi University, China; MA, Eastern Michigan University; PhD, University of Michigan-Ann Arbor.

**MICHIKO YUSA** (1983) Professor of Japanese and East Asian Studies. BA, International Christian University, Tokyo; MA, C Phil, PhD, University of California-Santa Barbara.

## Other Departmental Information

### Mid-Program Checkpoint

Students seeking to complete a BA in Chinese, French, German, Japanese or Spanish within a four-year time span should have completed the second-year sequence (e.g., 201, 202, 203) in the language by the start of their junior year. Otherwise it will be difficult or impossible to complete this degree program within two additional years.

### Experienced Speakers of a Language

## MODERN AND CLASSICAL LANGUAGES

First-year courses in the Department of Modern and Classical Languages are designed for students with minimal or no previous exposure to the target language. Students enrolling in second-year courses should have no more than foundational knowledge, equivalent to the first year. Students having previous experience with the language, such as attending junior high school, high school, community or technical college, or university in which the language in question was the primary language of instruction, may be required to begin study at a more appropriate level, if available. The decision will be left to the discretion of the instructor and the language department.

### Study Abroad

Students can increase language proficiency through travel, work and study abroad. WWU offers programs at study centers in Morelia, Mexico; Quito, Ecuador; Valdivia, Chile; Segovia, Oviedo and Cadiz, Spain; Angers and Rennes, France; Vienna, Austria; Macerata and Siena, Italy; Tokyo, Japan; and Beijing, China. Designed to give students a complete foreign study experience in the host country, each program includes numerous excursions to historical and cultural sites and a wide range of activities which complement formal classroom work. WWU also sponsors academic-year university exchange programs (a) with Asia, Tsuda and Obirin universities in Tokyo, Japan; (b) Beijing Foreign Studies University; and (c) with ISEP at 70 universities in 32 countries. Students also may access language schools in Québec, Costa Rica, Germany and many other countries. Special application and registration procedures are required for participation in foreign study programs, and students should consult with the Education Abroad office, Miller Hall 208, well in advance of their planned quarter abroad, as well as with the coordinator of the language section to discuss transfer credit.

### Advanced Placement Credit

## Bachelor of Arts

### Chinese Language and Culture with Teaching Endorsement Option, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**63-72 credits (58 additional credits for teacher certification)**

#### Introduction

This major is designed to develop advanced proficiency in both Chinese language and culture with the goal of placing students in a competitive position in this increasingly globalized world. The rigorous curriculum of this major focuses on training students in the communicative skills and in cultural awareness that are essential for

The student who has studied a foreign language in high school may be granted additional university credit upon completion of foreign language courses at WWU. Advanced placement credit is not awarded for 100-level courses. Request for advanced placement credit is to be made to the advisor of the language section.

### Transfer Placement

Students transferring from another university with some course work in a foreign language should consult with the language coordinator of the section about placement.

### Attendance

The learning and studying of a foreign language involves a level of student participation considerably higher than that required by some disciplines. It is the students' responsibility to ascertain the specific attendance requirements of their individual instructors.

### Endorsement of Post-baccalaureate Students

Post-baccalaureate students with a degree in a foreign language are required to:

- Have a GPA of 3.00 or above in the major
- Obtain a letter of recommendation from a faculty member in reference to the candidate's potential as a teacher
- Satisfactorily pass the departmental oral proficiency exam given by appointment only
- Complete the endorsement sequence LANG 410, 420
- Complete 314 (phonetics) in language to be endorsed

Additional work in the language may also be required. Students should consult the coordinator of the language section.

## MODERN AND CLASSICAL LANGUAGES

success in their career pursuits in business, education, public service, and technology related to China, Chinese people and Chinese language. This program also prepares students to become successful language teachers at the secondary education level.

### Why Consider a Teaching Endorsement in Chinese Language and Culture Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

The BA in Chinese Language and Culture leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education. A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Regulations for teaching endorsement are subject to change. For teaching endorsement program, contact the world languages endorsement advisor.

#### Contact Information

##### Modern and Classical Languages

##### Department Office

Miller Hall 223  
360-650-3918

##### Secondary Education Program Manager

Jenna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wwu.edu

##### World Languages - Education Advisor

Shaw Gynan  
Miller Hall 215A  
360-650-4853  
Shaw.Gynan@wwu.edu

##### Secondary Education Website

[https://wce.wwu.edu/sec/  
secondary-education](https://wce.wwu.edu/sec/secondary-education)

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the Chinese advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses.

### Requirements

**Complete both A and B:**

A. Language Component (55-64 credits)

- Chinese Language and Culture, BA

B. Endorsement Requirements (8 credits)

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 430 - Chinese Language Pedagogy and Practice
- A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.
- Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Additional Requirements

**Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)**

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

**Chinese Language and Culture, BA**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**55-64 credits**

**Introduction**

This major is designed to develop advanced proficiency in both Chinese language and culture with the goal of placing students in a competitive position in this increasingly globalized world. The rigorous curriculum of this major focuses on training students in the communicative skills and in cultural awareness that are essential for success in their career pursuits in business, education, public service, and technology related to China, Chinese people and Chinese language.

**Why Consider a Chinese Language and Culture Major?**

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

# MODERN AND CLASSICAL LANGUAGES

## Contact Information

### Modern and Classical Languages Department Office

Miller Hall 223

360-650-3918

## Sample Careers

Jobs involving businesses in Chinese-speaking countries | Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer | All careers involving communication

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students can declare this major at any time, but must meet with a Chinese major advisor prior to declaration. For Chinese major advisor information, contact the Department of Modern and Classical Languages at 360-650-3918.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

At least 30 of the 55-64 credits must be in upper division (300- or 400-level) courses.

### Language Courses (35 credits)

- CHIN 201 - Second-Year Chinese
- CHIN 202 - Second-Year Chinese
- CHIN 203 - Second-Year Chinese
- CHIN 301 - Third-Year Chinese
- CHIN 302 - Third-Year Chinese
- CHIN 303 - Third-Year Chinese
- CHIN 304 - Chinese Grammar and Composition
- CHIN 401 - Fourth Year Chinese

### Non-Language Courses (9 credits)

- CHIN 402 - Chinese Language and Linguistics
- EAST 367 - Chinese Literature in Translation

### Electives (11-20 credits)

Including minimum 1 course from either HIST, LBRL, PLSC, or SOC

- CHIN 237 - Study Abroad (Chinese Language & Culture)
- CHIN 337 - Study Abroad (Chinese Language & Culture)
- CHIN 280 - Traditional Chinese Characters and Calligraphy
- CHIN 330 - Chinese Culture Through Film and Literature
- CHIN 425 - Teaching-Learning Processes in Elementary Chinese
- EAST 230 - Modern Chinese Society and Language
- HIST 370 - Chinese History to 600 Ad
- HIST 372 - Chinese History: 1800 to Present
- HIST 479 - Medieval and Early-Modern Chinese History
- HIST 480 - Modern Chinese Social History
- HIST 481 - The Chinese Revolution
- LANG 430 - Chinese Language Pedagogy and Practice
- LBRL 277 - Humanities of China
- LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern



LBRL 380 - Religion and Society in China  
 PLSC 430 - Modern Chinese Politics  
 SOC 437 - Changing China

## French with Teaching Endorsement Option, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**63 credits (58 additional credits for teacher certification)**

### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a Teaching Endorsement in French Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

The BA in French leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Contact Information		
<b>Modern and Classical Languages Department Office</b> Miller Hall 223 360-650-3918	<b>French Advisor</b> Dr. Cecile Hanania Miller Hall 126 360-650-4858 Cecile.Hanania@wwu.edu	<b>World Languages - Education Advisor</b> Shaw Gynan Miller Hall 215A 360-650-4853 Shaw.Gynan@wwu.edu
<b>Secondary Education Program Manager</b> Jenna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu	<b>Secondary Education Website</b> <a href="https://wce.wwu.edu/sec/secondary-education">https://wce.wwu.edu/sec/secondary-education</a>	

**Sample Careers**  
 Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
 | All careers involving communication

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## MODERN AND CLASSICAL LANGUAGES

### How to Declare (Admission and Declaration Process):

Make an appointment with the French advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses.

### Requirements

#### Complete both A and B:

##### A. Language Component (55 credits)

- French, BA

##### B. Endorsement Requirements (8 credits)

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.
- Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Additional Requirements

#### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## French, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**55 credits**

### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a French Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

Contact Information	
<b>Modern and Classical Languages</b> <b>Department Office</b> Miller Hall 223 360-650-3918	<b>French Advisor</b> Dr. Cecile Hanania Miller Hall 126 360-650-4858 Cecile.Hanania@wwu.edu

Sample Careers
Interpreter   Foreign Correspondent   Foreign Service Officer   FBI Agent   Educator   Linguist   Travel Writer   All careers involving communication
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

### How to Declare (Admission and Declaration Process):

Make an appointment with the French advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

### Requirements

## MODERN AND CLASSICAL LANGUAGES

- Maximum of 15 credits at the 200 level
  - FREN 301 - Grammar Review
  - FREN 302 - Written Exposition
  - FREN 314 - Phonetics
  - One course from:
    - FREN 331 - La France: société et culture
    - FREN 332 - Civilisation et Culture du Canada Francophone
  - Two courses from:
    - FREN 340 - Introduction to French Literature I
    - FREN 341 - Introduction to French Literature II
    - FREN 342 - Introduction to French Literature III
  - FREN 385 - Culture and Conversation
  - FREN 401 - Elements De Stylistique
  - and one other 400-level French course  
(One 400-level French course must be taken on campus)
- NOTE:** FREN 425 is not applicable to the major

### French/German, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**90 credits**

#### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

#### Why Consider a French/German Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

Contact Information		
<b>Modern and Classical Languages</b> <b>Department Office</b> Miller Hall 223 360-650-3918	<b>French Advisor</b> Dr. Cecile Hanania Miller Hall 126 360-650-4858 Cecile.Hanania@wwu.edu	<b>German Advisor</b> Please see the department for the most up-to-date information. Miller Hall 223 360-650-3918
Sample Careers		
Interpreter   Foreign Correspondent   Foreign Service Officer   FBI Agent   Educator   Linguist   Travel Writer   All careers involving communication		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

**How to Declare (Admission and Declaration Process):**

Make an appointment with the French and German advisors.

When meeting with an advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in both languages is required.

**Requirements**

- ☐ 45 credits at the 200 level or above in a first language, 45 credits at the 200 level or above in a second language (90 credits total)
- ☐ Student must successfully complete the most advanced skills course in both languages (must be taken on campus) as well as at least one course per language in culture, literature, and phonetics; limit of 15 credits at 200 level per language

**French/Spanish, BA**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**90 credits**

**Introduction**

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

**Why Consider a French/Spanish Major?**

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

Contact Information		
<b>French Advisor</b> Dr. Cecile Hanania Miller Hall 126 360-650-4858 Cecile.Hanania@wwu.edu	<b>Spanish Advisor</b> Shaw Gynan Miller Hall 215A 360-650-4853 Shaw.Gynan@wwu.edu	<b>Modern and Classical Languages Department Office</b> Miller Hall 223 360-650-3918

## MODERN AND CLASSICAL LANGUAGES

### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the French and Spanish advisors.

When meeting with an advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

Students seeking admission to the French/Spanish major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Complete at least one Spanish course at Western
- Submit application (available from Spanish advisor or department office)
- Students meeting qualifications but not admitted because of space limitations may reapply

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in both languages is required.

### Requirements

- 45 credits at the 200 level or above in a first language, 45 credits at the 200 level or above in a second language (90 credits total)
- Student must successfully complete the most advanced skills course in both languages (must be taken on campus) as well as at least one course per language in culture, literature, and phonetics; limit of 15 credits at 200 level per language

## German with Teaching Endorsement Option, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 63 credits (58 additional credits for teacher certification)

#### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

**Why Consider a Teaching Endorsement in German Major?**

The BA in German leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Regulations for teaching endorsement are subject to change. For teaching endorsement program, contact the foreign language endorsement advisor.

Contact Information		
<b>Modern and Classical Languages Department Office</b> Miller Hall 223 360-650-3918	<b>German Advisor</b> Please see the department for the most up-to-date information. Miller Hall 223 360-650-3918	<b>World Languages - Education Advisor</b> Shaw Gynan Miller Hall 215A 360-650-4853 Shaw.Gynan@wwu.edu
<b>Secondary Education Website</b> <a href="https://wce.wwu.edu/sec/secondary-education">https://wce.wwu.edu/sec/secondary-education</a>	<b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu	

Sample Careers
Interpreter   Foreign Correspondent   Foreign Service Officer   FBI Agent   Educator   Linguist   Travel Writer   All careers involving communication
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

**How to Declare (Admission and Declaration Process):**

Make an appointment with the German advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses.

**Requirements**

**Complete both A and B:**

A. Language Component (55 credits)

- German, BA

B. Endorsement Requirements (8 credits)

## MODERN AND CLASSICAL LANGUAGES

- ❑ LANG 410 - World Language Instruction: Theory and Method I
- ❑ LANG 420 - World Language Instruction: Theory and Method II
- ❑ A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.
- ❑ Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- ❑ SEC 303 - Teaching Adolescents: Development and Identity
- ❑ SEC 310 - Education, Culture, and Equity
- ❑ SEC 410 - Dynamics of Teaching
- ❑ SEC 411 - Philosophical Foundations of Education
- ❑ SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- ❑ SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- ❑ SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- ❑ SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- ❑ SEC 433 - Teaching and Learning Laboratory
- ❑ SEC 435 - Secondary Practicum I
- ❑ SEC 436 - Secondary Practicum II
- ❑ I T 444 - Classroom Use of Instructional Technology (Secondary)
- ❑ SEC 495 - Internship - Secondary
- ❑ SPED 363 - Secondary Students With Special Needs

## German, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 55 credits

### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a German Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.



Contact Information

**Modern and Classical Languages**

**Department Office**

Miller Hall 223  
360-650-3918

**German Advisor**

Please see the department for the most up-to-date information.  
Miller Hall 223  
360-650-3918

Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingmajor.shtml](http://www.wvu.edu/careers/students_choosingmajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the German advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

**Requirements**

- Maximum of 15 credits at the 200 level
  - GERM 301 - High Intermediate German: Contexts & Culture
  - GERM 302 - Advanced German: Contexts & Cultures I
  - GERM 314 - Phonetics
  - One course from:
    - GERM 331 - Civilization of Germany Through the Nineteenth Century
    - GERM 332 - German Civilization Today
  - GERM 340 - Introduction to German Literature
  - One course from:
    - GERM 341 - Nineteenth-Century German Literature
    - GERM 343 - Eighteenth-Century German Literature
  - GERM 401 - Advanced German: Contexts & Cultures II (must be taken on campus)
  - GERM 402 - Advanced German: Contexts & Cultures III (must be taken on campus)
  - GERM 450 - Studies in German Literature
- NOTE:** GERM 425 is not applicable to major

**German/Spanish, BA**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**90 credits**

**Introduction**

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the

## MODERN AND CLASSICAL LANGUAGES

highest achievements in aesthetic expression of a culture's values. The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a German/Spanish Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

Contact Information		
<b>Modern and Classical Languages</b> <b>Department Office</b> Miller Hall 223 360-650-3918	<b>German Advisor</b> Please see the department for the most up-to-date information. Miller Hall 223 360-650-3918	<b>Spanish Advisor</b> Shaw Gynan Miller Hall 215A 360-650-4853 Shaw.Gynan@wwu.edu
Sample Careers		
Interpreter   Foreign Correspondent   Foreign Service Officer   FBI Agent   Educator   Linguist   Travel Writer   All careers involving communication		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

### How to Declare (Admission and Declaration Process):

Make an appointment with the German and Spanish advisors.

- When meeting with the advisor, you should bring:
- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

Students seeking admission to the German/Spanish major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Complete at least one Spanish course at Western
- Submit application (available from Spanish advisor or department office)
- Students meeting qualifications but not admitted because of space limitations may reapply

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in both languages is required.

### Requirements

- 45 credits at the 200 level or above in a first language, 45 credits at the 200 level or above in a second language (90 credits total)
- Student must successfully complete the most advanced skills course in both languages (must be taken on campus) as well as at least one course per language in culture, literature, and phonetics; limit of 15 credits at 200 level per language

### Japanese with Teaching Endorsement Option, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**63 credits (58 additional credits for teacher certification)**

**Introduction**

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

**Why Consider a Teaching Endorsement in Japanese Major?**

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

The BA in Japanese leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Regulations for teaching endorsement are subject to change. For teaching endorsement program, contact the foreign language endorsement advisor.

Contact Information		
<b>Modern and Classical Languages Department Office</b> Miller Hall 223 360-650-3918	<b>Japanese Advisor</b> Dr. Massimiliano Tomasi Miller Hall 222C 360-650-3339 Massimiliano.Tomasi@wwu.edu	<b>World Languages - Education Advisor</b> Shaw Gynan Miller Hall 215A 360-650-4853 Shaw.Gynam@wwu.edu
<b>Secondary Education Website</b> <a href="https://wce.wwu.edu/sec/secondary-education">https://wce.wwu.edu/sec/secondary-education</a>	<b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu	

**Sample Careers**

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer | All careers involving communication

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the Japanese advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript

## MODERN AND CLASSICAL LANGUAGES

- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses.

### Requirements

#### Complete both A and B:

##### A. Language Component (55 credits)

- Japanese, BA

##### B. Endorsement Requirements (8 credits)

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.
- Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Additional Requirements

#### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Japanese, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### 55 credits

#### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the department trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values. The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a Japanese Major?

The Department of Modern and Classical Languages provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

##### Japanese Advisor

Dr. Massimiliano Tomasi

Miller Hall 222C

360-650-3339

Massimiliano.Tomasi@wwu.edu

##### Modern and Classical Languages

##### Department Office

Miller Hall 223

360-650-3918

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the Japanese advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

### Requirements

- Maximum of 15 credits at the 200 level
- JAPN 201 - Second-Year Japanese
- JAPN 202 - Second-Year Japanese
- JAPN 203 - Second-Year Japanese
- JAPN 301 - Third-Year Japanese
- JAPN 302 - Third-Year Japanese
- JAPN 303 - Third-Year Japanese
- JAPN 350 - Japanese Culture, History and Society
- JAPN 401 - Advanced Japanese (must be taken on campus)
- JAPN 402 - Topics in Japanese Literature (must be taken on campus)
- JAPN 403 - Topics in Japanese Thought (must be taken on campus)

## MODERN AND CLASSICAL LANGUAGES

**NOTE:** While not required, study abroad in Japan is strongly encouraged.

### Electives

- At least 15 credits from the following:
  - HIST 484 - Women in Japanese History
  - HIST 485 - Japanese Military History: Samurai Fact and Fiction
  - HIST 486 - Religion in Japanese History
  - EAST 368 - Japanese Literature in Translation
  - HIST 374 - Premodern Japanese History
  - HIST 375 - Modern Japanese History
  - JAPN 314 - Japanese Phonetics
  - JAPN 330 - Japanese Culture Through Film

## Spanish with Teaching Endorsement Option, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**63 credits (58 additional credits for teaching certification)**

### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a Teaching Endorsement in Spanish Major?

The department provides students with the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

The BA in or Spanish leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Regulations for teaching endorsement are subject to change. For teaching endorsement program, contact the foreign language endorsement advisor.

#### Contact Information

**Modern and Classical  
Languages Department Office**  
Miller Hall 223  
360-650-3918

**Spanish and World  
Languages - Education  
Advisor**  
Shaw Gynan  
Miller Hall 215A

**Secondary Education**

**Website**

<https://wce.wvu.edu/sec/secondary-education>

360-650-4853  
Shaw.Gynan@wvu.edu

**Secondary Education Program Manager**

Janna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wvu.edu

**Sample Careers**

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

**Major/Career Resources**

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students seeking admission to the major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Complete at least one Spanish course at Western
- Submit application (available from Spanish advisor or department office)

Students meeting qualifications but not admitted because of space limitations may reapply.

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses

**Requirements**

**Complete both A and B:**

**A. Language Component (55 credits)**

- Spanish, BA

**B. Endorsement Requirements (8 credits)**

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.
- Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

**Additional Requirements**

**Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)**

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching

## MODERN AND CLASSICAL LANGUAGES

- ❑ SEC 411 - Philosophical Foundations of Education
- ❑ SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- ❑ SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- ❑ SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- ❑ SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- ❑ SEC 433 - Teaching and Learning Laboratory
- ❑ SEC 435 - Secondary Practicum I
- ❑ SEC 436 - Secondary Practicum II
- ❑ I T 444 - Classroom Use of Instructional Technology (Secondary)
- ❑ SEC 495 - Internship - Secondary
- ❑ SPED 363 - Secondary Students With Special Needs

### Spanish, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**55 credits**

#### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

#### Why Consider a Spanish Major?

The department provides students with the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

**Modern and Classical Languages  
Department Office**  
Miller Hall 223  
360-650-3918

**Spanish Advisor**  
Shaw Gynan  
Miller Hall 215A  
360-650-4853  
Shaw.Gynan@wwu.edu

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students seeking admission to the major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203).



- Complete at least one Spanish course at Western.
- Submit application (available from Spanish advisor or department office).

Students meeting qualifications but not admitted because of space limitations may reapply.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

### Requirements

- SPAN 301 - Grammar Review and Composition
- SPAN 302 - Grammar Review and Composition
- SPAN 314 - Phonetics
- SPAN 340 - Introduction to Hispanic Literature
- SPAN 401 - Advanced Grammar (must be taken on campus)
- SPAN 402 - Advanced Composition (must be taken on campus)
- One course from:
  - SPAN 331 - Culture of Spain
  - SPAN 332 - Culture of Latin America
- One course from:
  - SPAN 351 - Survey of the Literature of Spain
  - SPAN 352 - Survey of the Literature of Latin America
- One topic course from:
  - SPAN 450 - Studies in Hispanic Literature

**NOTE:** SPAN 340, SPAN 351, SPAN 352 and SPAN 450 are to be taken in that order. The same applies for SPAN 401 and SPAN 402. SPAN 425 can be applied to the major once.

### Electives

- The remainder of the 55 required credits from:
  - SPAN 305 - Third-Year Conversation
  - SPAN 333 - Spanish for the Professions
  - SPAN 334 - Spanish for Healthcare Professions
  - SPAN 425 - Teaching-Learning Processes in Elementary Spanish
  - SPAN 430 - Cultures Through Film
  - SPAN 440 - Studies in Hispanic Linguistics
  - One additional culture (SPAN 331 or SPAN 332) beyond that which is required for the major.
  - One additional survey of literature course (SPAN 351 or SPAN 352) beyond that which is required for the major.
  - One additional topic course (SPAN 450) beyond that which is required for the major.
  - Other SPAN 300 or 400 courses offered on a temporary basis.
  - Maximum of 15 credits at the 200 level

## Bachelor of Arts in Education

### French — Elementary, BAE

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### 45 credits

#### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language

## MODERN AND CLASSICAL LANGUAGES

structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable elementary school students to begin the acquisition of foreign languages.

### Why Consider a French-Elementary Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

Contact Information		
<b>Modern and Classical Languages Department Office</b> Miller Hall 223 360-650-3918	<b>French Advisor</b> Dr. Cecile Hanania Miller Hall 126 360-650-4858 Cecile.Hanania@wwu.edu	
<b>Teacher Education Admissions</b> Miller Hall 150 360-650-43313 <a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>	<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wwu.edu/eled/elementary-education">https://wce.wwu.edu/eled/ elementary-education</a>	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948

Sample Careers
Elementary Teacher
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

### How to Declare (Admission and Declaration Process):

Make an appointment with the French advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

A GPA of 2.75 is required in major language.

## Requirements

- Minimum of 21 credits must be taken in language skills courses (e.g., 201, 202, 301, 302, 401) through the fourth year
- Remaining credits are to be earned in selected courses under advisement at the 300- or 400-level in the language; up to 24 of these credits may be earned through foreign study course work in language, culture or literature (if taken in the target language)

## Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience

## MODERN AND CLASSICAL LANGUAGES

- ❑ ELED 492 - Practicum: Experience in Literacy Methods
- ❑ ELED 494 - Internship - Elementary
- ❑ HLED 455 - Health Education Grades K-8
- ❑ MATH 381 - Teaching K-8 Mathematics I
- ❑ MATH 382 - Teaching K-8 Mathematics II
- ❑ MATH 383 - Teaching K-8 Mathematics III
- ❑ MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- ❑ PE 345 - Physical Education for Elementary School
- ❑ SCED 480 - Science Methods and Curriculum for the Elementary School
- ❑ SCED 490 - Laboratory/Field Experience in Elementary Science

### German — Elementary, BAE

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**45 credits**

#### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable elementary school students to begin the acquisition of foreign languages.

#### Why Consider a German-Elementary Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

<b>Contact Information</b>		
<b>Modern and Classical Languages Program Information</b> Miller Hall 223 360-650-3918	<b>German Advisor</b> Please see the department for the most up-to-date information. Miller Hall 223 360-650-3918	
<b>Teacher Education Admissions</b> Miller Hall 150 360-650-43313 <a href="https://wce.wvu.edu/admission">https://wce.wvu.edu/admission</a>	<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wvu.edu/eled/elementary-education">https://wce.wvu.edu/eled/elementary-education</a>	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948

<b>Sample Careers</b> Elementary Teacher
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**Major/Career Resources**

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the German advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

A GPA of 2.75 is required in major language.

**Requirements**

- Minimum of 21 credits must be taken in language skills courses (e.g., GERM 201, GERM 202, GERM 203, GERM 301, GERM 302, GERM 401) through the fourth year.
- Remaining credits are to be earned in selected courses under advisement at the 300- or 400-level in the language; up to 24 of these credits may be earned through foreign study course work in language, culture or literature (if taken in the target language).

**Additional Requirements****Elementary Education Professional Program Requirements (100-103 credits)**

Department of Elementary Education, Woodring College of Education

**Introduction**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

**Admission and Declaration Process**

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

**Professional Studies Core (22 credits)**

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning

## MODERN AND CLASSICAL LANGUAGES

- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Spanish — Elementary, BAE

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 45 credits

#### Introduction

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable elementary school students to begin the acquisition of foreign languages.

#### Why Consider a Spanish-Elementary Major?

The department provides students with the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern

## MODERN AND CLASSICAL LANGUAGES

languages offered in this department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Contact Information

#### Modern and Classical Languages

##### Department Office

Miller Hall 223  
360-650-3918

#### Spanish Advisor

Shaw Gynan  
Miller Hall 215A  
360-650-4853  
Shaw.Gynan@wwu.edu

#### Elementary Education Professional Program Information

Miller Hall 300  
360-650-3336  
[https://wce.wwu.edu/eled/  
elementary-education](https://wce.wwu.edu/eled/elementary-education)

#### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<https://wce.wwu.edu/admission>

#### Elementary Education Program

**Manager**  
Miller Hall 301D  
360-650-7948

### Sample Careers

Elementary Teacher

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students seeking admission to the major must meet the following conditions:

- Complete SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Submit application (available from Spanish Advisor or Department Office)
- Complete at least one Spanish course at Western

Students meeting qualifications but not admitted because of space limitations may reapply.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

A GPA of 2.75 is required in major language.

### Requirements

- Minimum of 21 credits must be taken in language skills courses (e.g., 201, 202, 301, 302, 401) through the fourth year
- Remaining credits are to be earned in selected courses under advisement at the 300- or 400-level in the language; up to 24 of these credits may be earned through foreign study course work in language, culture or literature (if taken in the target language)

### Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

# MODERN AND CLASSICAL LANGUAGES

## Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

## Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science



# Additional Endorsement

## Designated World Languages, Additional Endorsement

### 39-51 Credits

#### Introduction

This additional endorsement program prepares students to teach designated world language (Chinese, French, German, Japanese, or Spanish) at all levels and must be accompanied by a professional education program and a qualifying endorsement in another content area. See the Elementary Education, Secondary Education, and Special Education and Education Leadership sections of this catalog for program admission, completion, and teacher certificate requirements. A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.

#### Contact Information

Shaw Gynan  
Miller Hall 215A  
360-650-4853  
shawgynan@wwu.edu

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### Grade Requirements

Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better. The Department of Modern and Classical Languages requires a GPA of 3.0 in the language coursework.

#### Requirements

##### Chinese P-12 (39 Credits)

- CHIN 201 - Second-Year Chinese
- CHIN 202 - Second-Year Chinese
- CHIN 203 - Second-Year Chinese
- CHIN 301 - Third-Year Chinese
- CHIN 302 - Third-Year Chinese
- CHIN 303 - Third-Year Chinese
- CHIN 304 - Chinese Grammar and Composition
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 430 - Chinese Language Pedagogy and Practice

##### German P-12 (44 Credits)

- GERM 201 - Intermediate German: Language, Communication & Culture
- GERM 202 - Intermediate German: Language, Communication & Culture
- GERM 203 - Intermediate German: Language, Communication & Culture
- GERM 301 - High Intermediate German: Contexts & Culture
- GERM 302 - Advanced German: Contexts & Cultures I
- GERM 314 - Phonetics
- GERM 340 - Introduction to German Literature
- GERM 401 - Advanced German: Contexts & Cultures II
- GERM 402 - Advanced German: Contexts & Cultures III

## MODERN AND CLASSICAL LANGUAGES

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II

### French P-12 (45 Credits)

- FREN 201 - Intermediate French
- FREN 202 - Intermediate French
- FREN 203 - Intermediate French
- FREN 301 - Grammar Review
- FREN 302 - Written Exposition
- FREN 314 - Phonetics
- One of the following:
  - FREN 340 - Introduction to French Literature I
  - FREN 341 - Introduction to French Literature II
  - FREN 342 - Introduction to French Literature III
- FREN 401 - Elements De Stylistique
- One additional 400-level French course
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II

### Japanese P-12 (40 credits)

- JAPN 201 - Second-Year Japanese
- JAPN 202 - Second-Year Japanese
- JAPN 203 - Second-Year Japanese
- JAPN 301 - Third-Year Japanese
- JAPN 302 - Third-Year Japanese
- JAPN 303 - Third-Year Japanese
- JAPN 401 - Advanced Japanese
- One additional upper division course under advisement
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II

### Spanish P-12 (51 Credits)

- SPAN 201 - Intermediate Spanish
- SPAN 202 - Intermediate Spanish
- SPAN 203 - Intermediate Spanish
- SPAN 301 - Grammar Review and Composition
- SPAN 302 - Grammar Review and Composition
- SPAN 314 - Phonetics
- One of the following:
  - SPAN 331 - Culture of Spain
  - SPAN 332 - Culture of Latin America
- SPAN 340 - Introduction to Hispanic Literature
- SPAN 401 - Advanced Grammar
- SPAN 402 - Advanced Composition
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II

## Minor

### Chinese Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**24 credits****Introduction**

The study of a language minor allows students to enrich their major program with language skills and cultural understanding. The department believes that the best way to understand a culture is through its language. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study-abroad opportunities. Language courses are complemented by courses in areas such as culture, literature, and linguistics.

**Why Consider a Chinese Minor?**

The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. To be able to communicate in a second language is a fundamental asset in any profession in an increasingly globalized world, from careers in education, translating and interpreting, to those in international studies, health, business or law. Many job listings include proficiency in a world language as a desirable or necessary tool. In addition, a language minor helps students acquire other types of abilities leading to success in the job market: cultural literacy, communication skills, analytical skills, interpersonal skills, a capacity for problem solving, and the ability to learn quickly.

**Contact Information****Modern and Classical Languages Department Office**

Miller Hall 223  
360-650-3918

**Major/Career Resources**

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the Chinese faculty advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Minor" form (available at the Department Office)
- Documentation for any study-abroad credits earned

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

**Requirements**

- Maximum 15 credits at the 200 level
  - A minimum of three courses at the 300 or 400-level in minor language, to include:
    - CHIN 301 - Third-Year Chinese
    - CHIN 302 - Third-Year Chinese
    - CHIN 303 - Third-Year Chinese (must be taken on campus)
    - OR
    - CHIN 304 - Chinese Grammar and Composition (must be taken on campus)
- NOTE:** CHIN 425 is not applicable to the minor.

**Classical Studies Minor**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**27 credits**

# MODERN AND CLASSICAL LANGUAGES

## Contact Information

### Modern and Classical Languages Department Office

Miller Hall 223  
360-650-3918

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the Classical Studies faculty advisor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor courses is required.

### Requirements

- CLST 260 - Masterworks of Ancient Greek Literature
- CLST 270 - Literature of Rome and Her Empire
- CLST 350 - Greek Mythology
- Select 15 credits from:
  - CLST 450 - Topics in Classical Studies
  - HIST 312 - History of Ancient Greece
  - HIST 313 - History of Ancient Rome
  - HIST 410 - The First Cities: Urbanization in the Ancient World
  - PHIL 364 - History of Philosophy: Ancient Philosophy
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe

A maximum of one course from the following may be used toward the 15 credits:

- LAT 101 - Elementary Latin
- LAT 102 - Elementary Latin
- LAT 103 - Elementary Latin
- GREK 101 - Elementary Greek
- GREK 102 - Elementary Greek
- GREK 103 - Elementary Greek

## French Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 24 credits

### Introduction

The study of a language minor allows students to enrich their major program with language skills and cultural understanding. The department believes that the best way to understand a culture is through its language. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study-abroad opportunities. Language courses are complemented by courses in areas such as culture, literature, and linguistics.

### Why Consider a French Minor?

The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. To be able to communicate in a second language is a fundamental asset in any profession in an increasingly globalized world, from careers in education, translating and interpreting, to those in international studies, health, business or law. Many job listings include proficiency in a world language as a desirable or necessary tool. In addition, a language minor helps students acquire other types of abilities

leading to success in the job market: cultural literacy, communication skills, analytical skills, interpersonal skills, a capacity for problem solving, and the ability to learn quickly.

### Contact Information

#### Modern and Classical Languages

##### Department Office

Miller Hall 223

360-650-3918

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the French faculty advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Minor" form (available at the Department Office)
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

### Requirements

- Maximum of 15 credits at the 200 level
  - A minimum of three courses at 300 or 400 level, to include:
    - FREN 301 - Grammar Review
    - FREN 302 - Written Exposition
- NOTE:** FREN 425 is not applicable to the minor

## German Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 24 credits

### Introduction

The study of a language minor allows students to enrich their major program with language skills and cultural understanding. The department believes that the best way to understand a culture is through its language. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study-abroad opportunities. Language courses are complemented by courses in areas such as culture, literature, and linguistics.

### Why Consider a German Minor?

The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. To be able to communicate in a second language is a fundamental asset in any profession in an increasingly globalized world, from careers in education, translating and interpreting, to those in international studies, health, business or law. Many job listings include proficiency in a world language as a desirable or necessary tool. In addition, a language minor helps students acquire other types of abilities leading to success in the job market: cultural literacy, communication skills, analytical skills, interpersonal skills, a capacity for problem solving, and the ability to learn quickly.

# MODERN AND CLASSICAL LANGUAGES

## Contact Information

### Modern and Classical Languages

#### Department Office

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## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the German faculty advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Minor" form (available at the Department Office)
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

### Requirements

- Maximum 15 credits at the 200 level
- A minimum of three courses at 300 or 400 level in minor language, to include:
  - GERM 301 - High Intermediate German: Contexts & Culture
  - GERM 302 - Advanced German: Contexts & Cultures I**NOTE:** GERM 425 is not applicable to the minor

## Greek Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 12 credits

## Contact Information

### Modern and Classical Languages Department Office

Miller Hall 223  
360-650-3918

## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the Greek faculty advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Minor" form (available at the Department Office)
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor courses is required.

## Requirements

- 12 credits at the 200-300 level

## University Graduation Requirements

## Japanese Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 24 credits

### Introduction

The study of a language minor allows students to enrich their major program with language skills and cultural understanding. The department believes that the best way to understand a culture is through its language. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study-abroad opportunities. Language courses are complemented by courses in areas such as culture, literature, and linguistics.

### Why Consider a Japanese Minor?

The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. To be able to communicate in a second language is a fundamental asset in any profession in an increasingly globalized world, from careers in education, translating and interpreting, to those in international studies, health, business or law. Many job listings include proficiency in a world language as a desirable or necessary tool. In addition, a language minor helps students acquire other types of abilities leading to success in the job market: cultural literacy, communication skills, analytical skills, interpersonal skills, a capacity for problem solving, and the ability to learn quickly.

#### Contact Information

#### Modern and Classical Languages

#### Department Office

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#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the Japanese faculty advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Minor" form (available at the Department Office)
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in Japanese courses is required.

## Requirements

- Maximum 12 credits at 200 level
- JAPN 301 - Third-Year Japanese
- JAPN 302 - Third-Year Japanese
- One course from:

## MODERN AND CLASSICAL LANGUAGES

JAPN 303 - Third-Year Japanese (must be taken on campus)

JAPN 401 - Advanced Japanese (must be taken on campus)

**NOTE:** JAPN 280 and JAPN 425 are not applicable to the minor

### Latin American Studies Minor (see History Department)

Latin American Studies Minor (see History Department)

#### Latin Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### 12 credits

##### Contact Information

##### Modern and Classical Languages

##### Department Office

Miller Hall 223

360-650-3918

##### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor courses is required.

#### Requirements

- 12 credits at the 200-300 level

### Russian and Eurasian Studies Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### 27-28 Credits

#### Introduction

The Russian and Eurasian studies minor provides students with basic proficiency in the Russian language, combined with a broad understanding of the history and cultures of the wider Eurasian area. The minor provides a well-rounded education in Russia's current and past experience as the key country, language, and culture across a broad area of Europe and Asia.

#### Why Consider a Russian and Eurasian Studies Minor?

The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. To be able to communicate in a second language is a fundamental asset in any profession in an increasingly globalized world, from careers in education, translating and interpreting, to those in international studies, health, business or law. Many job listings include proficiency in a world language as a desirable or necessary tool. In addition, a language minor helps students acquire other types of abilities leading to success in the job market: cultural literacy, communication skills, analytical skills, interpersonal skills, a capacity for problem solving, and the ability to learn quickly.

##### Contact Information

##### Modern and Classical Languages Department Office

Miller Hall 223

360-650-3918



## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Must have taken Russian 201 or equivalent to declare.

Make an appointment with the Chinese faculty advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Minor" form (available at the Department Office)
- Documentation for any study-abroad credits earned

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- RUSS 201 - Intermediate Russian I
- RUSS 202 - Intermediate Russian II
- RUSS 203 - Intermediate Russian III
- EUS 201 - Russian Civilization
- EUS 210 - Nomads of Eurasia
- At least two credits from RUSS 214 or EUS 450

**Spanish Minor**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**24 credits****Introduction**

The study of a language minor allows students to enrich their major program with language skills and cultural understanding. The department believes that the best way to understand a culture is through its language. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study-abroad opportunities. Language courses are complemented by courses in areas such as culture, literature, and linguistics.

**Why Consider a Spanish Minor?**

The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. To be able to communicate in a second language is a fundamental asset in any profession in an increasingly globalized world, from careers in education, translating and interpreting, to those in international studies, health, business or law. Many job listings include proficiency in a world language as a desirable or necessary tool. In addition, a language minor helps students acquire other types of abilities leading to success in the job market: cultural literacy, communication skills, analytical skills, interpersonal skills, a capacity for problem solving, and the ability to learn quickly.

## Contact Information

**Modern and Classical Languages****Department Office**

Miller Hall 223

360-650-3918

## Major/Career Resources

## MODERN AND CLASSICAL LANGUAGES

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the Spanish faculty advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Minor" form (available at the Department Office)
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

### Requirements

- Maximum 15 credits at 200 level
  - A minimum of three courses at 300 or 400 level in minor language, to include:
    - SPAN 301 - Grammar Review and Composition
    - SPAN 302 - Grammar Review and Composition
- NOTE:** SPAN 425 is not applicable to the minor

## Arabic Courses

### ARAB 101 - Elementary Arabic

101, 102, 103 Elementary Arabic (5 each). To be taken in sequence. Fundamentals of speaking, reading, writing and understanding standard Arabic.

**Credits:** 5

**Grade Mode:** Letter

### ARAB 102 - Elementary Arabic

101, 102, 103 Elementary Arabic (5 each). To be taken in sequence. Fundamentals of speaking, reading, writing and understanding standard Arabic.

**Prerequisites & Notes:** Arabic 101

**Credits:** 5

**Grade Mode:** Letter

### ARAB 103 - Elementary Arabic

101, 102, 103 Elementary Arabic (5 each). To be taken in sequence. Fundamentals of speaking, reading, writing and understanding standard Arabic.

**Prerequisites & Notes:** Arabic 102

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### ARAB 201 - Intermediate Arabic

201, 202, 203 Intermediate Arabic (5 ea). To be taken in sequence. Continuation of skill development begun in elementary Arabic (Modern Standard Arabic), with additional work and focus on speaking and vocabulary acquisition.

**Prerequisites & Notes:** ARAB 103

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### ARAB 202 - Intermediate Arabic

201, 202, 203 Intermediate Arabic (5 ea). To be taken in sequence. Continuation of skill development begun in elementary Arabic (Modern Standard Arabic), with additional work and focus on speaking and vocabulary acquisition.

**Prerequisites & Notes:** ARAB 201

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### ARAB 203 - Intermediate Arabic

201, 202, 203 Intermediate Arabic (5 ea). To be taken in sequence. Continuation of skill development begun in elementary Arabic (Modern Standard Arabic), with additional work and focus on speaking and vocabulary acquisition.

**Prerequisites & Notes:** ARAB 202

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**ARAB 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**ARAB 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**Chinese Courses**

**CHIN 101 - First-Year Chinese**

To be taken in sequence. Fundamentals of the modern standard language (Mandarin): pronunciation, grammar, aural comprehension, reading and speaking.

**Credits:** 5  
**Grade Mode:** Letter

**CHIN 102 - First-Year Chinese**

To be taken in sequence. Fundamentals of the modern standard language (Mandarin): pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** CHIN 101 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter

**CHIN 103 - First-Year Chinese**

To be taken in sequence. Fundamentals of the modern standard language (Mandarin): pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** CHIN 102 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

**CHIN 201 - Second-Year Chinese**

To be taken in sequence. Review of the fundamentals of the modern standard language (Mandarin); emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Chinese of graded materials in modern Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 103 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

**CHIN 202 - Second-Year Chinese**

To be taken in sequence. Review of the fundamentals of the modern standard language (Mandarin); emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Chinese of graded materials in modern Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 201 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

**CHIN 203 - Second-Year Chinese**

To be taken in sequence. Review of the fundamentals of the modern standard language (Mandarin); emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Chinese of graded materials in modern Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 202 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

**CHIN 280 - Traditional Chinese Characters and Calligraphy**

An introduction to the principles used in the formation and history of Chinese characters. The components of the characters are analyzed and compared with the new, simplified forms. Prepared texts provide practice in reading the characters. Calligraphy sessions provide opportunity to write both the traditional and simplified forms.

**Prerequisites & Notes:** CHIN 101  
**Credits:** 3  
**Grade Mode:** Letter

**CHIN 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and

## MODERN AND CLASSICAL LANGUAGES

sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### CHIN 301 - Third-Year Chinese

To be taken in sequence. Intensive reading, written vocabulary acquisition (reaching the 1,400 character level by the end of the sequence) and oral comprehension of materials in modern standard Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 203

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### CHIN 302 - Third-Year Chinese

To be taken in sequence. Intensive reading, written vocabulary acquisition (reaching the 1,400 character level by the end of the sequence) and oral comprehension of materials in modern standard Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 301

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### CHIN 303 - Third-Year Chinese

To be taken in sequence. Intensive reading, written vocabulary acquisition (reaching the 1,400 character level by the end of the sequence) and oral comprehension of materials in modern standard Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 302

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### CHIN 304 - Chinese Grammar and Composition

This course is designed to review and discuss all major grammatical elements in Chinese, including sentence building, analysis of grammatical elements and written composition. Students will be asked to read and compose an autobiography on various topics, such as childhood, family and friends, resume, hobbies, etc.

**Prerequisites & Notes:** CHIN 201

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### CHIN 330 - Chinese Culture Through Film and Literature

An introduction to cultural aspects of Chinese through a study of film as oral and visual texts. Film scripts and short stories, especially those from which films have been adapted, are used to enhance reading and discussion skills. Repeatable to a maximum of 9 cr.

**Prerequisites & Notes:** CHIN 203 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### CHIN 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### CHIN 401 - Fourth Year Chinese

This course is designed to serve as a capstone course for students who major in Chinese Language and Culture. It provides students with the opportunity to apply and integrate both linguistic and cultural knowledge that they have acquired from each course in their program of Chinese study at Western.

**Prerequisites & Notes:** CHIN 302 or equivalent, or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### CHIN 402 - Chinese Language and Linguistics

This course is designed for students to gain a comprehensive understanding of the structure and usage of Mandarin (Modern standard) Chinese. Through class discussion, reading materials, and a research project, students explore all core areas of Chinese language and linguistics: phonology, morphology, semantics, syntax, as well as dialect variations.

**Prerequisites & Notes:** CHIN 201 or LING 201 or instructor's permission

**Credits:** 4

**Grade Mode:** Letter

### CHIN 425 - Teaching-Learning Processes in Elementary Chinese

Students selected for tutoring must dedicate four hours per week to provide help to other students primarily those enrolled in 100-200 levels of Chinese courses. Permission may also be given to assist with other Chinese courses completed with outstanding achievement. Students may be requested to lead group sessions or work with students individually. Expertise in Chinese grammar or linguistics is desirable. S/U grading.

**Prerequisites & Notes:** CHIN 301; CHIN 430; and instructor permission.

**Credits:** 2

**Grade Mode:** S/U

## Classical Studies Courses

### CLST 117 - The Ancient Legacy

An introduction to the contributions made by Greece and Rome to the European cultural tradition. Five thematic questions and the answers offered by the ancients are to be examined: God or Mortal; Citizen and State; the Great Individual; the life of philosophy and the life of political activity; the Burden of Immortality.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### CLST 260 - Masterworks of Ancient Greek Literature

Survey of the major Greek texts - epic, dramatic and narrative - in translation with emphasis on those works which have shaped the classical tradition.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### CLST 270 - Literature of Rome and Her Empire

Survey of the major literary monuments which serve to define the Roman character and the nature of the Roman Empire at its height.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### CLST 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed

Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### CLST 350 - Greek Mythology

A study of Greek myths as a vital and evolving feature of Greek religious and intellectual life from Homer through Hesiod and Aeschylus to Euripides.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### CLST 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### CLST 401 - Sanskrit

Fundamentals of the classical language: pronunciation; reading and writing of devanagari script; grammar.

**Credits:** 5

**Grade Mode:** Letter

### CLST 410 - The Proto-Indo-European Roots of the Classical Languages

Introduction to principles of comparative philology and comparative mythology and poetics; survey of the phonology, morphology and syntax of Proto-Indo-European; the major IE branches with special emphasis given to Hellenic, Italic and Indo-Iranian.

**Prerequisites & Notes:** GREK 101 or LAT 101 or CLST 350 or CLST 401.

**Credits:** 4

**Grade Mode:** Letter

### CLST 450 - Topics in Classical Studies

Varying topics, such as individual genres (e.g., epic, tragedy) or eras (fifth-century B.C. Athens, the Mediterranean World in the first century A.D.), will be treated from quarter to quarter. See the Timetable of Classes for offerings. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** CLST 260 or CLST 270 or

## MODERN AND CLASSICAL LANGUAGES

CLST 350 or LBRL 121 or ENG 281

**Credits:** 3-5

**Grade Mode:** Letter

### Eurasian Studies Courses

#### **EUS 201 - Russian Civilization**

Survey of the history and culture of the Russian people from the earliest times to the present, with comparisons to other Western societies.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

#### **EUS 210 - Nomads of Eurasia**

Surveys the origins, cultures and languages of the pastoral peoples of Eurasia, including the Mongols, Turks, Arabs, peoples of Iran and Afghanistan, as well as the native tribes of Siberia and the North Pacific Rim.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

#### **EUS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### **EUS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### **EUS 450 - Topics in Eurasian Studies**

Variable topics in Eurasian Studies, including folklore, linguistics, area studies. Repeatable for credit.

**Prerequisites & Notes:** EUS 201 or EUS 210 or

instructor permission

**Credits:** 3

**Grade Mode:** Letter

### French Courses

#### **FREN 101 - Elementary French**

To be taken in sequence. Fundamentals of speaking, reading, writing and understanding French.

**Credits:** 5

**Grade Mode:** Letter

#### **FREN 102 - Elementary French**

To be taken in sequence. Fundamentals of speaking, reading, writing and understanding French.

**Prerequisites & Notes:** FREN 101

**Credits:** 5

**Grade Mode:** Letter

#### **FREN 103 - Elementary French**

To be taken in sequence. Fundamentals of speaking, reading, writing and understanding French.

**Prerequisites & Notes:** FREN 102

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

#### **FREN 104 - Review of Elementary French**

Designed for students with two years of high school French or equivalent to prepare them for the intermediate level through review and development of basic structure and vocabulary. Also for students needing a review of the first year.

**Prerequisites & Notes:** FREN 103 or two years HS French or equivalent

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

#### **FREN 201 - Intermediate French**

To be taken in sequence. Continuation of skill development begun in elementary French, with additional work in vocabulary acquisition and grammar.

**Prerequisites & Notes:** FREN 103 or FREN 104 or equivalent

**Credits:** 5

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**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### FREN 202 - Intermediate French

To be taken in sequence. Continuation of skill development begun in elementary French, with additional work in vocabulary acquisition and grammar.

**Prerequisites & Notes:** FREN 201 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### FREN 203 - Intermediate French

To be taken in sequence. Continuation of skill development begun in elementary French, with additional work in vocabulary acquisition and grammar.

**Prerequisites & Notes:** FREN 202 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### FREN 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### FREN 301 - Grammar Review

Study of language and structure, vocabulary building, use of reference tools and writing styles.

**Prerequisites & Notes:** FREN 203 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### FREN 302 - Written Exposition

Practice in written expression of various kinds: resumes, analyses de texte, personal and formal correspondence as well as fiction.

**Prerequisites & Notes:** FREN 301  
**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### FREN 314 - Phonetics

Emphasizes improvement of pronunciation, contrasts English and French pronunciations and teaches phonetic transcription.

**Prerequisites & Notes:** FREN 203 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter

### FREN 331 - La France: société et culture

An introduction to the culture and civilization of France from historical and modern perspectives. Readings, discussions, films, oral and written assignments in French.

**Prerequisites & Notes:** FREN 301 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter

### FREN 332 - Civilisation et Culture du Canada Francophone

An introduction to French Canadian culture and civilization from historical, modern, and linguistic perspectives. Readings, discussions, films, oral and written assignments in French.

**Prerequisites & Notes:** FREN 301 or FREN 314 depending on course emphasis.  
**Credits:** 3  
**Grade Mode:** Letter

### FREN 340 - Introduction to French Literature I

An introduction to literary analysis, explication de texte involving poetry, prose and drama from the works of major authors of the Middle Ages and Renaissance.

**Prerequisites & Notes:** FREN 301 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter

### FREN 341 - Introduction to French Literature II

An introduction to literary analysis, explication de texte involving poetry, prose and drama from works of major authors of the 17th and 18th centuries.

**Prerequisites & Notes:** FREN 301; FREN 340 recommended  
**Credits:** 4  
**Grade Mode:** Letter

### FREN 342 - Introduction to French Literature III

Introduction to literary analysis, explication de texte involving poetry, prose and drama from

## MODERN AND CLASSICAL LANGUAGES

works of major authors of the 19th and 20th centuries.

**Prerequisites & Notes:** FREN 301 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### FREN 385 - Culture and Conversation

French and Francophone cultures as seen in various media. Discussion of aspects of these cultures. Required for the major. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** FREN 301 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### FREN 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### FREN 401 - Elements De Stylistique

Extensive practice in writing and in analyzing grammatical, stylistic and textual forms.

**Prerequisites & Notes:** FREN 302 and one from: FREN 340, FREN 341, FREN 342

**Credits:** 3

**Grade Mode:** Letter

### FREN 402 - French for Business

Extensive practice writing and analyzing French as used for professional purposes including business case studies, correspondence and contracts. May replace FREN 401 with permission of instructor.

**Prerequisites & Notes:** FREN 301 plus 2 additional 300-level French courses

**Credits:** 4

**Grade Mode:** Letter

### FREN 410 - Ecriture Feminine Francophone

Introduces students to a variety of texts written by women from the Francophone world (from Belgium to North Africa, French Antilles to Canada), and explores social, cultural and literary topics such as bi- and multiculturalism, native cultures vs. exogenous cultures, colonization, women's writing and condition, attitudes toward France and the

French language, and exile and memory reconstruction.

**Prerequisites & Notes:** FREN 401 and one of FREN 340, FREN 341 or FREN 342.

**Credits:** 4

**Grade Mode:** Letter

### FREN 420 - Histoire De La Langue Francaise

A cultural and linguistic survey of the development of the French language from its origins to the present day, with samples selected from phonetic, grammatical, lexical, and syntactical aspects of the language at various stages in its evolution.

**Prerequisites & Notes:** FREN 401 and one of FREN 340, FREN 341, FREN 342.

**Credits:** 4

**Grade Mode:** Letter

### FREN 425 - Teaching-Learning Processes in Elementary French

Practicum in course preparation, classroom and language laboratory procedures, materials, evaluation and counseling. Repeatable. S/U grading.

**Prerequisites & Notes:** Written permission and two upper-division French courses.

**Credits:** 2

**Grade Mode:** S/U

### FREN 440 - Etude Sociolinguistique

Discusses the current developments of French in relation to community identity in times of globalization and late modernity. Examines the sociocultural forces that cause language variation and change, as well as people's attitudes vis à vis French in the Francophone world. Also introduces students to current sociolinguistic research methods.

**Prerequisites & Notes:** FREN 314, FREN 401 and one of FREN 340, FREN 341 or FREN 342

**Credits:** 4

**Grade Mode:** Letter

### FREN 460 - French Cinema

Part I: Historical overview of French cinema from 1895 to 1945. Part II: Historical overview of French cinema from 1945 to present.

**Prerequisites & Notes:** FREN 401 and one of FREN 340, FREN 341 or FREN 342.

**Credits:** 4

**Grade Mode:** Letter

### FREN 500 - Directed Independent Study



An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## German Courses

### **GERM 101 - Elementary German: Language, Communication & Culture**

To be taken in sequence. Fundamentals of the language (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

**Credits:** 5

**Grade Mode:** Letter

### **GERM 102 - Elementary German: Language, Communication & Culture**

Fundamentals of the language (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

**Prerequisites & Notes:** GERM 101 or equivalent

**Credits:** 5

**Grade Mode:** Letter

### **GERM 103 - Elementary German: Language, Communication & Culture**

Fundamentals of the language (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

**Prerequisites & Notes:** GERM 102 or equivalent

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### **GERM 104 - Review of Elementary German: Language, Communication & Culture**

Designed for students with two years of high school German or equivalent. Review of language fundamentals (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

**Prerequisites & Notes:** Two years of high school German.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### **GERM 201 - Intermediate German: Language, Communication & Culture**

Deepening of language and communication skills developed in Elementary German and introduction of further cultural content in the target language.

**Prerequisites & Notes:** GERM 103 or GERM 104 or equivalent

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### **GERM 202 - Intermediate German: Language, Communication & Culture**

Deepening of language and communication skills developed in Elementary German and introduction of further cultural content in target language.

**Prerequisites & Notes:** GERM 201 or equivalent

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **GERM 203 - Intermediate German: Language, Communication & Culture**

Deepening of language and communication skills developed in Elementary German and introduction of further cultural content in the target language.

**Prerequisites & Notes:** GERM 202 or equivalent

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **GERM 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **GERM 301 - High Intermediate German: Contexts & Culture**

To be taken in sequence. Comprehensive review of grammatical structures, further development of language skills, and discussion of authentic materials in their socio-historical contexts.

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**Prerequisites & Notes:** GERM 203 or equivalent

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **GERM 302 - Advanced German: Contexts & Cultures I**

Continuing review of grammatical structures, further development of language skills, and study of more complex authentic materials in their socio-historical contexts.

**Prerequisites & Notes:** GERM 301 or equivalent

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### **GERM 306 - Third-Year Conversation**

Development of speaking skills in communicative situations. S/U grading.

**Prerequisites & Notes:** GERM 302 or equivalent.

**Credits:** 3

**Grade Mode:** S/U

### **GERM 314 - Phonetics**

A course designed to improve the student's pronunciation and intonation, to become familiar with phonetic transcription, and to become aware of problems involved in teaching German sounds.

**Prerequisites & Notes:** GERM 203

**Credits:** 4

**Grade Mode:** Letter

### **GERM 331 - Civilization of Germany Through the Nineteenth Century**

Significant elements of German civilization presented through German texts.

**Prerequisites & Notes:** GERM 301

**Credits:** 4

**Grade Mode:** Letter

### **GERM 332 - German Civilization Today**

Significant elements of German civilization. Repeatable to a maximum of 8 cr.

**Prerequisites & Notes:** GERM 301

**Credits:** 4

**Grade Mode:** Letter

### **GERM 340 - Introduction to German Literature**

Selected works of major German authors, with emphasis on reading improvement and methods of

textual interpretation.

**Prerequisites & Notes:** GERM 301

**Credits:** 4

**Grade Mode:** Letter

### **GERM 341 - Nineteenth-Century German Literature**

Emphasis on either Romanticism or Realism. Repeatable with different topics.

**Prerequisites & Notes:** GERM 340

**Credits:** 4

**Grade Mode:** Letter

### **GERM 343 - Eighteenth-Century German Literature**

Classical period of German literature as reflected in a major work of Lessing, Goethe and Schiller.

**Prerequisites & Notes:** GERM 340

**Credits:** 4

**Grade Mode:** Letter

### **GERM 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **GERM 401 - Advanced German: Contexts & Cultures II**

In-depth work with the language, including complex structures and stylistics, communication and cultural content.

**Prerequisites & Notes:** GERM 302 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **GERM 402 - Advanced German: Contexts & Cultures III**

In-depth work with the language, with an emphasis on effective written communication; analysis of written texts for style, organization and purpose.

**Prerequisites & Notes:** GERM 302 or equivalent; recommended take GERM 401 first

**Credits:** 4

**Grade Mode:** Letter

**GERM 406 - Fluency Through Dramatization**

Bridges the gap between grammar-based language learning and content-based culture and/or literature courses. Students profit highly from a holistic approach involving role playing and the actualization of works of modern German drama. Emphasis is placed on pronunciation and intonation to facilitate increased fluency in German.

**Prerequisites & Notes:** GERM 302  
**Credits:** 4  
**Grade Mode:** Letter

**GERM 407 - German Culture Through Film**

This course explores the main features of German culture of the 20th Century through the medium of feature films rather than textbooks.

**Prerequisites & Notes:** GERM 302  
**Credits:** 4  
**Grade Mode:** Letter

**GERM 425 - Teaching-Learning Process in Elementary German**

Practicum in preparation, implementation and evaluation of instructional materials. Repeatable with no maximum. S/U grading.

**Prerequisites & Notes:** 6 credits upper-division German; written department permission.  
**Credits:** 2  
**Grade Mode:** S/U

**GERM 432 - Contemporary German Culture**

Analysis of important trends and current events in the German-speaking countries presented through various texts and media.

**Prerequisites & Notes:** GERM 340 and department advisement.  
**Credits:** 4  
**Grade Mode:** Letter

**GERM 440 - Topics in Germanic Linguistics**

Study of major areas in Germanic linguistics. Topics may include history of German, lexicology, phonology, morphology, syntax, dialectology. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** GERM 401  
**Credits:** 4  
**Grade Mode:** Letter

**GERM 450 - Studies in German Literature**

Major authors and movements. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** GERM 302, GERM 340  
**Credits:** 4  
**Grade Mode:** Letter

**GERM 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**Greek Courses**

**GREK 101 - Elementary Greek**

Fundamentals of ancient Greek grammar designed primarily to provide an elementary reading knowledge; selected readings from various Greek writers.

**Credits:** 5  
**Grade Mode:** Letter

**GREK 102 - Elementary Greek**

Fundamentals of ancient Greek grammar designed primarily to provide an elementary reading knowledge; selected readings from various Greek writers.

**Prerequisites & Notes:** GREK 101  
**Credits:** 5  
**Grade Mode:** Letter

**GREK 103 - Elementary Greek**

Fundamentals of ancient Greek grammar designed primarily to provide an elementary reading knowledge; selected readings from various Greek writers.

**Prerequisites & Notes:** GREK 102  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

**GREK 201 - Intermediate Greek I**

To be taken in sequence. Review of fundamentals of ancient Greek grammar; reading from Plato's dialogues, the orators, the Iliad or Odyssey. Introduction to Greek civilization.

**Prerequisites & Notes:** GREK 103 or equivalent  
**Credits:** 4

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**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### GREK 202 - Intermediate Greek II

Review of fundamentals of ancient Greek grammar; reading from Plato's dialogues, the orators, the Iliad or Odyssey. Introduction to Greek civilization.

**Prerequisites & Notes:** GREK 201  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### GREK 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### GREK 350 - Advanced Readings

Selected readings from Greek authors with an emphasis on honing grammatical skills and deepening one's understanding of Greek literary and cultural achievements. Repeatable with different topics.

**Prerequisites & Notes:** GREK 202  
**Credits:** 4  
**Grade Mode:** Letter

### GREK 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## Italian Courses

### ITAL 101 - First-Year Italian

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking. Also offered as ITAL 137A.

**Credits:** 5  
**Grade Mode:** Letter

## Japanese Courses

### JAPN 101 - First-Year Japanese

Fundamentals of the language: writing and reading hiragana, katakana and kanji; grammar, listening and speaking. Audio-assisted oral practice is an integral part of the course.

**Credits:** 5  
**Grade Mode:** Letter

### JAPN 102 - First-Year Japanese

Fundamentals of the language: writing and reading hiragana, katakana and kanji; grammar, listening and speaking. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 101  
**Credits:** 5  
**Grade Mode:** Letter

### JAPN 103 - First-Year Japanese

Fundamentals of the language: writing and reading hiragana, katakana and kanji; grammar, listening and speaking. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 102  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### JAPN 104 - Review of Elementary Japanese

Designed for students with two years high school Japanese or equivalent to prepare them for the intermediate level through review and development of basic structure and vocabulary. Also for students needing a review of the first year.

**Prerequisites & Notes:** 2 years high school Japanese; proficiency in hiragana, katakana, and 150 basic kanji  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### JAPN 201 - Second-Year Japanese

Further fundamental grammar; review of first-year grammar; emphasis on writing, reading, listening and speaking skills. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 103 or JAPN 104

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**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### JAPN 202 - Second-Year Japanese

Further fundamental grammar; review of first-year grammar; emphasis on writing, reading, listening and speaking skills. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 201  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### JAPN 203 - Second-Year Japanese

Further fundamental grammar; review of first-year grammar; emphasis on writing, reading, listening and speaking skills. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 202  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### JAPN 280 - Kanji

Acquisition of 50 kanji per week by way of associative method. Not applicable to the minor. Repeatable to 10 cr. S/U grading.

**Credits:** 2  
**Grade Mode:** S/U

### JAPN 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### JAPN 301 - Third-Year Japanese

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; introduction of colloquial Japanese. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 203  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### JAPN 302 - Third-Year Japanese

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; introduction of colloquial Japanese. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 301  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### JAPN 303 - Third-Year Japanese

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; introduction of colloquial Japanese. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 302  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### JAPN 305 - Japanese Conversation

Development of speaking skills in communicative situations.

**Prerequisites & Notes:** JAPN 201  
**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### JAPN 314 - Japanese Phonetics

Improvement of pronunciation, familiarization with phonetic transcription, and awareness of pronunciation problems.

**Prerequisites & Notes:** JAPN 301 or instructor permission  
**Credits:** 4  
**Grade Mode:** Letter

### JAPN 330 - Japanese Culture Through Film

Discussion of Japanese culture seen through Japanese films. Topics of discussion involve Japanese psychology, mentality, customs, society and history. This course is conducted in Japanese and is repeatable up to 8 credits.

**Prerequisites & Notes:** JAPN 203.  
**Credits:** 4  
**Grade Mode:** Letter

### JAPN 350 - Japanese Culture, History and Society

This is a survey course that covers a broad scope of Japanese history, culture and society. It will be

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taught in Japanese but will include some readings and instruction in English when deemed appropriate. It is a requirement for students pursuing a major in Japanese, but other interested students may enroll with the permission of the instructor if space permits. Specific course contents vary according to instructors.

**Prerequisites & Notes:** JAPN 301

**Credits:** 4

**Grade Mode:** Letter

### JAPN 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### JAPN 401 - Advanced Japanese

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; targets the advanced materials.

**Prerequisites & Notes:** JAPN 303; required for majors.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### JAPN 402 - Topics in Japanese Literature

This is a seminar, conducted entirely in Japanese, and is required of students majoring in Japanese. Advanced reading materials in Japanese literature are introduced according to the class discussion schedule. The topic of the seminar varies according to the instructor. Repeatable to a maximum of 8 cr. under advisement.

**Prerequisites & Notes:** JAPN 401

**Credits:** 4

**Grade Mode:** Letter

### JAPN 403 - Topics in Japanese Thought

This is a seminar, conducted entirely in Japanese, and is required of students majoring in Japanese. Students are introduced to advanced materials in Japanese thought according to the class discussion schedule. The topic of the seminar varies according to the instructor. This is a writing intensive course.

**Prerequisites & Notes:** JAPN 401 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### JAPN 425 - Teaching-Learning Process in Elementary Japanese

Practicum in course preparation, classroom materials, evaluation and counseling. Repeatable up to 4 credits. S/U grading.

**Prerequisites & Notes:** Written permission of department; JAPN 303 with B or better.

**Credits:** 2

**Grade Mode:** S/U

## Latin Courses

### LAT 101 - Elementary Latin

Fundamentals of grammar to provide a reading knowledge; selected readings from various Roman writers.

**Credits:** 5

**Grade Mode:** Letter

### LAT 102 - Elementary Latin

Fundamentals of grammar to provide a reading knowledge; selected readings from various Roman writers.

**Prerequisites & Notes:** LAT 101

**Credits:** 5

**Grade Mode:** Letter

### LAT 103 - Elementary Latin

Fundamentals of grammar to provide a reading knowledge; selected readings from various Roman writers.

**Prerequisites & Notes:** LAT 102

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### LAT 201 - Intermediate Latin

To be taken in sequence as the first in an intermediate language sequence. Review of fundamentals; selected readings from various Roman writers; introduction to Roman civilization.

**Prerequisites & Notes:** LAT 103 or two years of high school Latin

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### LAT 202 - Intermediate Latin

To be taken in sequence as the second in an intermediate language sequence. Review of fundamentals; selected readings from various Roman writers; introduction to Roman civilization.

**Prerequisites & Notes:** LAT 201

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### LAT 203 - Intermediate Latin

To be taken in sequence as the third in an intermediate language sequence. Review of fundamentals; selected readings from Roman writers with an emphasis on honing grammatical skills and understanding Roman literary and cultural achievements.

**Prerequisites & Notes:** LAT 202 or equivalent.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### LAT 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### LAT 340 - Classical Roman Literature

Readings in major Roman authors of the late Republican and early Imperial periods; introduction to classical literary analysis.

**Prerequisites & Notes:** Two years university-level Latin or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### LAT 341 - Medieval Latin Literature

Readings in the Christian Latin authors of the European Middle Ages. Introduction to Latin paleography, Medieval literary genres and prosody.

**Prerequisites & Notes:** Two years university-level Latin or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### LAT 342 - Humanist and Neo-Latin Literature

Selections from authors of the European Renaissance, Reformation and modern periods; special attention given to the continuity of Classical literary traditions.

**Prerequisites & Notes:** Two years university-level Latin or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### LAT 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## Modern and Classical Languages Courses

### LANG 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### LANG 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### LANG 410 - World Language Instruction: Theory and Method I

To be taken prior to field experience. Theory of world language instruction. Topics include contrastive analysis of English with target language; comparative first and second language

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acquisition; cognitive, attitudinal and political dimensions.

**Prerequisites & Notes:** 6 credits in one world language beyond second year; Grade of B or better in LING 201 or instructor permission.

**Credits:** 4

**Grade Mode:** S/U

### **LANG 420 - World Language Instruction: Theory and Method II**

To be taken prior to field experience. Methods of world language instruction. Demonstration of and practice with techniques appropriate to a variety of levels. Use, analysis and critique of technology, grammar and translation, audiolingual techniques, and direct methods. Professional development is discussed and analyzed.

**Prerequisites & Notes:** LANG 410.

**Credits:** 4

**Grade Mode:** S/U

### **LANG 430 - Chinese Language Pedagogy and Practice**

The course is designed to help students develop a better understanding of the current theories and practice of Chinese language pedagogy and acquisition, to become acquainted with the National Standards (the five goal areas: communication, cultures, connections, comparisons, and communities and the three communicative modes: presentational, interpretive and interpersonal) and the teaching materials and methodologies in five major content areas of Chinese language learning (i.e. the pronunciation system, characters, sentences/grammar, discourse, and culture). Students will be given opportunities to design/develop teaching materials (including both language and cultural components) for different levels of classes and to strategize and articulate their courses based on assessment guidelines. This course may also be used as Linguistics 402 for linguistics majors.

**Prerequisites & Notes:** CHIN 202.

**Credits:** 4

**Grade Mode:** Letter

### **LANG 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## Portuguese Courses

### **PORT 105 - Intensive Portuguese for Speakers of Spanish**

An accelerated course designed for students with one year of college-level Spanish or equivalent to introduce them to the fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

**Credits:** 5

**Grade Mode:** Letter

### **PORT 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**Grade Mode:** Letter

### **PORT 304 - Portuguese for Spanish Speakers**

An accelerated course designed for students with two years of college-level Spanish or equivalent to prepare them for the advanced level through development of skills in pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** Two years of college-level Spanish or equivalent.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

## Russian Courses

### **RUSS 110 - Beginning Russian I**

Introduces the Russian alphabet, basic conversation and grammar. First course in the Russian language sequence.

**Credits:** 5

**Grade Mode:** Letter

### **RUSS 120 - Elementary Russian 2**

The second half of the introductory Russian language sequence.

**Prerequisites & Notes:** RUSS 110

**Credits:** 5



## MODERN AND CLASSICAL LANGUAGES

**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### **RUSS 201 - Intermediate Russian I**

Review of fundamentals: speaking, reading, writing and understanding.

**Prerequisites & Notes:** RUSS 120 or equivalent  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### **RUSS 202 - Intermediate Russian II**

Review of fundamentals: speaking, reading, writing and understanding.

**Prerequisites & Notes:** RUSS 201  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **RUSS 203 - Intermediate Russian III**

Review of fundamentals: speaking, reading, writing and understanding.

**Prerequisites & Notes:** RUSS 202  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **RUSS 214 - Russian Phonetics**

Systematic practical and theoretical introduction to the Russian sound system.

**Prerequisites & Notes:** RUSS 201  
**Credits:** 2  
**Grade Mode:** Letter

### **RUSS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **RUSS 301 - Third-Year Composition**

Written and oral expression, advanced grammar, and vocabulary building.

**Prerequisites & Notes:** RUSS 203 or equivalent  
**Credits:** 3

**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **RUSS 302 - Third-Year Composition**

Written and oral expression, advanced grammar and vocabulary building.

**Prerequisites & Notes:** RUSS 301 or equivalent  
**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

## Spanish Courses

### **SPAN 101 - Elementary Spanish**

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

**Credits:** 5  
**Grade Mode:** Letter

### **SPAN 102 - Elementary Spanish**

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** SPAN 101.  
**Credits:** 5  
**Grade Mode:** Letter

### **SPAN 103 - Elementary Spanish**

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** SPAN 102.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### **SPAN 104 - Review of Elementary Spanish**

Designed for students with two years of high school Spanish or equivalent to prepare them for the intermediate level through review and development of basic structure and vocabulary. Also for students needing a review of the first year. Offered fall only.

**Prerequisites & Notes:** Two years of high school Spanish recommended.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### **SPAN 201 - Intermediate Spanish**

## MODERN AND CLASSICAL LANGUAGES

Review of fundamentals: understanding, speaking, reading and writing.

**Prerequisites & Notes:** SPAN 103 or SPAN 104 or equivalent.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCOM

### SPAN 202 - Intermediate Spanish

Review of fundamentals: understanding, speaking, reading and writing.

**Prerequisites & Notes:** SPAN 201.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### SPAN 203 - Intermediate Spanish

Review of fundamentals: understanding, speaking, reading and writing.

**Prerequisites & Notes:** SPAN 202.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### SPAN 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### SPAN 301 - Grammar Review and Composition

Language development, including written composition, vocabulary building, analysis of grammatical problems and discussion of selected Spanish texts.

**Prerequisites & Notes:** SPAN 203 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### SPAN 302 - Grammar Review and Composition

Language development, including written composition, vocabulary building, analysis of grammatical problems and discussion of selected Spanish texts.

**Prerequisites & Notes:** SPAN 301.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### SPAN 305 - Third-Year Conversation

Development of speaking skills in communicative situations. S/U grading.

**Prerequisites & Notes:** SPAN 203 or equivalent.

**Credits:** 4

**Grade Mode:** S/U

### SPAN 310 - Writing Through Film

Writing Through Film is designed to give students the opportunity to improve, stimulate, and strengthen their writing skills. This class captures the history and culture in the selection of Hispanic films, providing students with the cultural context, vocabulary, and societal themes for written compositions.

**Prerequisites & Notes:** SPAN 203

**Credits:** 3

**Grade Mode:** Letter

### SPAN 314 - Phonetics

Improvement of student pronunciation, familiarization with phonetic transcription and description of Spanish sounds.

**Prerequisites & Notes:** SPAN 301 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### SPAN 331 - Culture of Spain

Survey of Spanish culture.

**Prerequisites & Notes:** SPAN 301 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### SPAN 332 - Culture of Latin America

Survey of Latin American culture.

**Prerequisites & Notes:** SPAN 301 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### SPAN 333 - Spanish for the Professions

Provides students with the practical and cultural knowledge necessary for work in the Spanish-speaking world. Emphasis on professional customs and practice, with considerable vocabulary exposure.

## MODERN AND CLASSICAL LANGUAGES

**Prerequisites & Notes:** SPAN 203.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 334 - Spanish for Healthcare Professions**

Development of vocabulary, communicative skills, and cultural knowledge relevant to the academic and professional fields of healthcare professions.

**Prerequisites & Notes:** SPAN 203.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 340 - Introduction to Hispanic Literature**

Selected works of major Hispanic authors, with emphasis on reading improvement and methods of textual interpretation.

**Prerequisites & Notes:** SPAN 302 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 351 - Survey of the Literature of Spain**

Historical survey of ten centuries of Spanish (Peninsular) literature.

**Prerequisites & Notes:** SPAN 340.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 352 - Survey of the Literature of Latin America**

Historical survey of Latin American literature from the pre-Hispanic period until the present.

**Prerequisites & Notes:** SPAN 340.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **SPAN 401 - Advanced Grammar**

Analysis of special problems in Spanish syntax.

**Prerequisites & Notes:** SPAN 302 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 402 - Advanced Composition**

Composition and stylistics; analysis of textual examples of style and organization.

**Prerequisites & Notes:** SPAN 401 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 405 - Fourth-Year Conversation**

Advanced speaking practice in communicative situations. S/U grading.

**Prerequisites & Notes:** SPAN 302 or equivalent.

**Credits:** 3

**Grade Mode:** S/U

### **SPAN 425 - Teaching-Learning Processes in Elementary Spanish**

Practicum in teaching Spanish. Repeatable. S/U grading.

**Prerequisites & Notes:** Permission of department and two courses in upper- division Spanish.

**Credits:** 2

**Grade Mode:** S/U

### **SPAN 430 - Cultures Through Film**

Selected films and readings. Emphasis on film as a medium through which to achieve understanding of chosen topics in various cultures of the Spanish-speaking world. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** SPAN 302

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 440 - Studies in Hispanic Linguistics**

Study of major areas in Hispanic linguistics. Topics may include history of the Spanish language, lexicology, phonology, morphology, syntax, dialectology or sociolinguistics. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** SPAN 314; or SPAN 301 and LING 201; or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **SPAN 450 - Studies in Hispanic Literature**

Major authors and movements. Repeatable with various topics with no maximum.

## MODERN AND CLASSICAL LANGUAGES

**Prerequisites & Notes:** SPAN 351 or SPAN 352.

**Credits:** 3-5

**Grade Mode:** Letter

### **SPAN 450A - Studies in Hispanic Literature**

Major authors and movements. Repeatable with various topics with no maximum.

**Prerequisites & Notes:** SPAN 351 or SPAN 352.

**Credits:** 3-5

**Grade Mode:** Letter

### **SPAN 450B - Studies in Hispanic Literature**

Major authors and movements. Repeatable with various topics with no maximum.

**Prerequisites & Notes:** SPAN 351 or SPAN 352.

**Credits:** 3-5

**Grade Mode:** Letter

### **SPAN 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

# Multidisciplinary Studies

## Introduction

The Multidisciplinary Studies Major is designed for students seeking a flexible academic focus that transcends disciplinary boundaries. Students may develop a personalized plan of study utilizing resources across multiple departments. The major affords students the opportunity to prepare themselves for work in a variety of areas. In consultation with the Multidisciplinary Studies Advisor, students design their program of study under the Multidisciplinary Studies Major guidelines.

The BA in Multidisciplinary Studies is administered and awarded by the College of Humanities and Social Sciences (CHSS). In keeping with the goals, mission, and standards for all students in CHSS, the Multidisciplinary Studies Major aspires to graduate individuals who: can appreciate cultural differences and differences of opinion; have developed moral and aesthetic sensibilities; have mastered the basic tools of literacy, communication, and technology; have acquired levels of knowledge about the natural and social worlds, past and present, sufficient for responsible citizenship and the enjoyment of a civilized society; and are lifelong learners.

Students interested in pursuing the Multidisciplinary Studies Major should contact the Multidisciplinary Studies Advisor. See [chss.wvu.edu/multidisciplinary-studies](http://chss.wvu.edu/multidisciplinary-studies).

## Declaration Process

A Multidisciplinary Studies Major is available only through an application process.

1. Students are required to meet with the Multidisciplinary Studies Advisor to develop a plan of study.
2. The plan of study for the proposed Multidisciplinary Studies Major must

identify educational objectives and the course planning should be linked to the objectives. A program theme should be developed and designed with advisement from the Multidisciplinary Studies Advisor.

- a. Students must meet all of the prerequisites for courses in the proposed major. No plan of study will be approved if it is apparent that the student hopes to avoid course prerequisites or sequencing.
  - b. Upper division courses in some departments may not be available due to competitive access with the departmental majors and cannot be included in the plan of study unless some prior arrangement and approval has been granted by the department.
3. Students must obtain final approval of the plan of study from the College of Humanities and Social Sciences through the Multidisciplinary Studies Advisor.
  4. Major declaration cards may be picked up from the Multidisciplinary Studies Advisor or are available on the website. The original card, signed by the Multidisciplinary Studies Advisor, must be returned to the Registrar's Office.

## Additional Information:

- Fairhaven students may not complete the Multidisciplinary Studies major.
- A Multidisciplinary Studies Major cannot be earned concurrently with another major.
- Any major earned after the degree is awarded may not be based on essentially the same constellation of courses as the student's Multidisciplinary Studies Major.
- Students who have earned a baccalaureate degree at Western cannot major in Multidisciplinary Studies.
- A minor in Multidisciplinary Studies is not offered.

# Bachelor of Arts

## Multidisciplinary Studies, BA

Program of Multidisciplinary Studies, College of Humanities and Social Sciences

## 60 Credits

## Introduction

## MULTIDISCIPLINARY STUDIES

The Multidisciplinary Studies major curriculum will focus on upper division level courses, designed to integrate a student's academic interest and skills.

### Why Consider a Multidisciplinary Studies Major?

Western's Multidisciplinary Studies major provides a solid liberal arts education to prepare students for rapidly changing career opportunities in many different fields. It is designed for students whose interests cannot be served by Western's established majors, and who want to focus their major studies across courses and departments to better meet their career goals or preparation for advanced levels of education.

#### Contact Information

##### Departmental Advisor

Stephen Howie  
Communications Facility 271  
360-650-2561  
Stephen.Howie@wwu.edu

See the department website for additional advisor contacts at  
<http://chss.wwu.edu/multidisciplinary-studies>

#### Sample Careers

Manager | Marketing Assistant | Program Administrator | Project Administrator | Staffing Specialist | Case Manager | Sales

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission and Declaration of Major

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- 35 upper division level credits in thematic areas requiring Multidisciplinary Studies Advisor approval.
- Examples of thematic areas include:
  - Social Sciences
  - Humanities
  - Sciences
  - Business
  - Health
  - Liberal Arts
- 25 additional credits of electives at the upper division level in any area (including the thematic area)

### Additional Requirements

- All courses must be approved on the Plan of Study
- 15 of the 60 credits are credits required after approval of Multidisciplinary Studies Plan of Study
- 10 credits maximum of internship or field experience may be included within the 60 credits.
- Students are limited to no more than 40 upper division credits in any single academic department and students are limited to no more than 44 credits in courses taught in business (classes by the departments of accounting, decision sciences, finance and marketing, and management).
- At least 50 percent of the credits used in the Multidisciplinary Studies major must be earned at Western Washington University.

# Multidisciplinary Studies Courses

## **MDS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **MDS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **MDS 410 - Writing Capstone: Framework For Your Future**

Students create a reflective writing portfolio that traces individual intellectual journey and provides ground work for projecting beyond graduation. Students examine artifacts from their undergraduate career to uncover their own history of ideas. Includes both formal and informal writing with opportunities for revision based on feedback.

**Prerequisites & Notes:** Multidisciplinary Studies majors only.

**Credits:** 4

**Grade Mode:** Letter

## **MDS 471 - Internship**

Supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. All students participate at the work site for at least 12 hours per week in the type of activities specified in the internship contract. S/U grading. Repeatable up to 10 credits including original course.

**Prerequisites & Notes:** Multidisciplinary Studies majors only; permission of instructor.

**Credits:** 5-10

**Grade Mode:** S/U

# Philosophy

## Introduction

Philosophy is among the oldest of intellectual disciplines. Many areas of study now distinct from philosophy — for example, the various sciences — may be regarded as offspring of philosophy which have come of age. Nevertheless, the central philosophical questions remain as vital as ever.

Historically, philosophy has been regarded by many as the most basic of intellectual disciplines; it is the firm conviction of the faculty of the Department of Philosophy that it is among the most relevant. Among the questions dealt with in one philosophy course or another are "What is knowledge?" "What is truth?" "Can we gain knowledge?" "Can we know the truth?" "Are there such things as right and wrong?" "Does God exist?" "What is the nature of the distinction between minds and bodies?" "Are persons machines?" and the like. The department believes that consideration of these and related questions is fundamental to being educated and, as such, should be of interest to all students; moreover, the department believes that many students are sufficiently able and mature intellectually to pursue answers to these questions at an advanced level with profit, and the faculty invite them to join in this pursuit.

The Department of Philosophy offers a wide range of courses in most of the traditional areas of philosophical concern: history of philosophy, ethics, philosophy of religion, metaphysics, to name only a few. A number of courses satisfy General University Requirements. Beyond this, the department offers a major and a minor program in

philosophy. The major program is intentionally one of the smallest in the University to allow students maximum opportunity to explore other areas of interest.

Work in philosophy fits well into many pre-professional programs. It is highly desirable as preparation for law school; indeed, some law schools have historically listed it as the preferred undergraduate major. Emphasizing, as it does, careful, deep, critical analysis of concepts and problems, philosophy is an excellent major for students who will seek positions in business and government which require a liberal arts background.

Recent studies show that students who major in philosophy are among the very highest groups in performance on the Graduate Record and other such qualifying examinations.

## Faculty

**RYAN WASSERMAN** (2005) Chair and Professor. BA, Western Washington University; PhD, Rutgers University.

**DANIEL HOWARD-SNYDER** (2001) Professor. BA, Seattle Pacific University; PhD, Syracuse University.

**FRANCES HOWARD-SNYDER** (1993) Professor. BA, MA, University of Capetown; PhD, Syracuse University.

**HUD HUDSON** (1992) Professor. BA, Boise State University; MA, PhD, University of Rochester.

**NEAL TOGNAZZINI** (2014) Assistant Professor. BA, Western Washington University; MA, PhD, University of California, Riverside.

**DENNIS WHITCOMB** (2007) Associate Professor. BS, Kansas State University; PhD, Rutgers University.

## Bachelor of Arts

### Philosophy, BA

Department of Philosophy, College of Humanities and Social Sciences

**57 credits**

### Introduction

Philosophy is among the oldest of intellectual disciplines. Among the questions dealt with in philosophy courses are "What is knowledge?", "What is truth?", and "Does God exist?" The Philosophy Department believes that consideration of these, and related questions, is fundamental to being educated and, as such, should be of interest to all students. The Department offers a wide range of courses in most of the traditional areas of philosophical concern such as ethics, epistemology, logic, metaphysics, and the history of philosophy.



## Why Consider a Philosophy Major?

Work in Philosophy fits well into many pre-professional programs, including law school. Emphasizing, as it does, careful, deep, critical analysis of concepts and problems, Philosophy is an excellent major for students who will seek positions in business and government which require a liberal arts background.

Contact Information	
<b>Major/Transfer Advisor and Philosophy Department Chair</b> Ryan Wasserman Bond Hall 302A 360-650-3860 Ryan.Wasserman@wwu.edu	<b>Academic Department Manager</b> DeNora Lombard Bond Hall 302B 360-650-3859 DeNora.Lombard@wwu.edu
Sample Careers	
Attorney   Analyst   Diplomat   Lobbyist   News Writer   Journalist   Clergy   Critic	
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

## How to Declare (Admission and Declaration)

In order to declare as a philosophy major or minor, one must first complete three philosophy courses (or 9 credits), with a C- or better in each of those courses.

Students wishing to declare as a major or minor should contact the Philosophy Department Chair or Academic Department Manager.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- PHIL 102 - Introduction to Logic
- PHIL 112 - Introduction to Philosophy: Moral Issues
- PHIL 114 - Introduction to Philosophy: Knowledge and Reality
- PHIL 202 - Intermediate Logic
- PHIL 310 - Theory of Knowledge
- PHIL 320 - Ethical Theory I
- PHIL 330 - Metaphysics I
- PHIL 364 - History of Philosophy: Ancient Philosophy
- PHIL 366 - History of Philosophy: the Rationalists
- PHIL 367 - History of Philosophy: the Empiricists
- PHIL 410 - Theory of Knowledge II
- PHIL 417 - Seminar in Philosophy
- PHIL 420 - Ethical Theory II
- PHIL 430 - Metaphysics II
- 15 additional philosophy credits

## Politics/Philosophy/Economics, BA (see Economics Department)

Politics/Philosophy/Economics, BA (see Economics Department)

## Minor

### Philosophy Minor

# PHILOSOPHY

Department of Philosophy, College of Humanities and Social Sciences

**24 credits**

## Introduction

Philosophy is among the oldest of intellectual disciplines. Among the questions dealt with in philosophy courses are "What is knowledge?", "What is truth?", and "Does God exist?" The Philosophy Department believes that consideration of these, and related questions, is fundamental to being educated and, as such, should be of interest to all students. The Department offers a wide range of courses in most of the traditional areas of philosophical concern such as ethics, epistemology, logic, metaphysics, and the history of philosophy.

## Why Consider a Philosophy Minor?

Work in Philosophy fits well into many pre-professional programs, including law school. Emphasizing, as it does, careful, deep, critical analysis of concepts and problems, Philosophy is an excellent major for students who will seek positions in business and government which require a liberal arts background.

### Contact Information

#### Major/Transfer Advisor and Philosophy Department Chair

Ryan Wasserman  
Bond Hall 302A  
360-650-3860  
Ryan.Wasserman@wwu.edu

#### Academic Department Manager

DeNora Lombard  
Bond Hall 302B  
360-650-3859  
DeNora.Lombard@wwu.edu

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- PHIL 102 - Introduction to Logic
- PHIL 112 - Introduction to Philosophy: Moral Issues
- PHIL 114 - Introduction to Philosophy: Knowledge and Reality
- One course from:
  - PHIL 364 - History of Philosophy: Ancient Philosophy
  - PHIL 366 - History of Philosophy: the Rationalists
  - PHIL 367 - History of Philosophy: the Empiricists
  - PHIL 368 - History of Philosophy: Kant and Post-Kantian Philosophy
- Two courses from:
  - PHIL 310 - Theory of Knowledge
  - PHIL 320 - Ethical Theory I
  - PHIL 330 - Metaphysics I
- Electives under departmental advisement

## Philosophy Courses

### PHIL 102 - Introduction to Logic

This course focuses on identifying, extracting, and assessing reasoning in everyday contexts by developing an artificial symbolic language to provide a clear representation of deductive reasoning (i.e. reasoning where the truth of the premises guarantees the truth of the conclusion).

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

### PHIL 107 - Critical Thinking

This course focuses on identifying, extracting, and assessing reasoning in everyday contexts by developing the skills involved in analytical reading, effective communication, and articulating the structure of inductive reasoning (i.e. reasoning

where the truth of the premises does not guarantee the truth of the conclusion).

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### **PHIL 112 - Introduction to Philosophy: Moral Issues**

Introduction to philosophical thinking about moral problems. Seeks to understand central moral concepts such as good, right, duty, etc., in the context of contemporary issues.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **PHIL 113 - Introduction to Philosophy: Philosophy of Religion**

Special attention is given to questions about the nature and existence of God. Also examined are such topics as the problem of evil, concepts of faith, religious experience, miracles, etc.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **PHIL 114 - Introduction to Philosophy: Knowledge and Reality**

Emphasis is given to the nature and possibility of knowledge, to related concepts such as truth, belief and evidence, and to selected metaphysical problems.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **PHIL 115 - Environmental Ethics**

This course examines a broad range of environmental issues. Primary emphasis is given to how theoretical frameworks in ethics have been applied in substantive thinking about the rightful treatment of animals, biotic communities, species in danger of extinction, and the protection, conservation, and preservation of natural resources. Emphasis may also be given to how ethical thinking intersects with issues addressed in economics, conservation biology, and other academic disciplines or how ethical perspectives have influenced social movements, public debate, and law.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **PHIL 202 - Intermediate Logic**

This course extends the focus of PHIL 102 to include a more powerful system of natural deduction involving quantifiers, predicates, relations, and identity.

**Prerequisites & Notes:** PHIL 102  
**Credits:** 3  
**Grade Mode:** Letter

### **PHIL 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **PHIL 310 - Theory of Knowledge**

The attempt to understand the possibility, nature, origins and limits of knowledge; problems and concepts.

**Prerequisites & Notes:** PHIL 102; PHIL 114 or HNRS 256.  
**Credits:** 3  
**Grade Mode:** Letter

### **PHIL 320 - Ethical Theory I**

An examination of traditional and contemporary views concerning the overall nature of morality (views such as cognitivism and realism), and also of specific moral theories (such as utilitarianism and contractualism). Other topics include moral rights, moral responsibility and the moral virtues.

**Prerequisites & Notes:** PHIL 112 or HNRS 255 or instructor permission.  
**Credits:** 3  
**Grade Mode:** Letter

### **PHIL 330 - Metaphysics I**

A systematic study of the fundamental categories of reality, such as existence, substance, property, identity, space, time, change, event, causality, necessity, essence, free will and mind. The philosophical issues in which these categories play a part also will be discussed.

**Prerequisites & Notes:** PHIL 102; PHIL 114 or HNRS 256.  
**Credits:** 3  
**Grade Mode:** Letter

# PHILOSOPHY

## PHIL 335 - Philosophy of Religion

Philosophy of religion and philosophical theology at an advanced level. Topics may include arguments for and against the existence of God, the attributes of God, religious pluralism, religion and science, religion and ethics, miracles, and the epistemology of religious belief.

**Prerequisites & Notes:** PHIL 102, PHIL 113

**Credits:** 3

**Grade Mode:** Letter

## PHIL 340 - Philosophy of Science

An examination of the basic methods and concepts of the sciences through the study of such topics as explanation, confirmation, causality, probability, laws of nature, theories, revolution, reduction and realism.

**Prerequisites & Notes:** PHIL 102; PHIL 114 or HNRS 256; or instructor permission

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

## PHIL 350 - Political Philosophy

The nature of the state, and of the institutions and practices of which it is comprised; the basis and scope of political obligation, the proper role of political activity; considerations of concepts of sovereignty, legitimacy, limits of state power, representation, and the like.

**Prerequisites & Notes:** Any one philosophy course or HNRS 255 or HNRS 256; PHIL 350 and PLSC 360 may not both be taken for GUR credit.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

## PHIL 355 - Aesthetics and the Philosophy of Art

Examination of the concept of art and related concepts, and also of aesthetic evaluation and interpretation as they apply to nature and to human artifacts.

**Prerequisites & Notes:** One philosophy course

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

## PHIL 360 - Society, Law and Morality

Concepts and principles involved in analysis and appraisal of social institutions with attention to freedom, rights, justice, and the relation between laws and morality.

**Prerequisites & Notes:** An one philosophy course or HNRS 255 or HNRS 256.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** HUM

## PHIL 364 - History of Philosophy: Ancient Philosophy

Great philosophical thinkers from the pre-Socratic philosophers to the Hellenistic period; special attention to Plato and Aristotle.

**Prerequisites & Notes:** Any one philosophy course or HNRS 255 or HNRS 256.

**Credits:** 3

**Grade Mode:** Letter

## PHIL 366 - History of Philosophy: the Rationalists

Great philosophical thinkers in the rationalist tradition, their problems and their methods: Descartes, Spinoza, Leibniz, et al.

**Prerequisites & Notes:** PHIL 114 or HNRS 256.

**Credits:** 3

**Grade Mode:** Letter

## PHIL 367 - History of Philosophy: the Empiricists

Great philosophical thinkers in the empiricist tradition, their problems and their methods: Locke, Berkeley, Hume, et al.

**Prerequisites & Notes:** PHIL 114 or HNRS 256.

**Credits:** 3

**Grade Mode:** Letter

## PHIL 368 - History of Philosophy: Kant and Post-Kantian Philosophy

Kant and post-Kantian philosophers, their problems and their methods: Kant, Fichte, Hegel, Schopenhauer, Nietzsche. Normally offered in odd-numbered academic years.

**Prerequisites & Notes:** PHIL 114

**Credits:** 3

**Grade Mode:** Letter

## PHIL 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not

eligible for tuition waiver.

**Credits:** 1-15

### **PHIL 403 - Philosophy of Language**

An examination of the nature of language through the study of such topics as truth, reference, meaning, use, convention, language's differences from other forms of communication and representation, and language's relations to thought and reality. The relevance of theories on these topics to selected philosophical issues also will be discussed.

**Prerequisites & Notes:** PHIL 202

**Credits:** 3

**Grade Mode:** Letter

### **PHIL 410 - Theory of Knowledge II**

An intensive examination of selected topics and methods in epistemology.

**Prerequisites & Notes:** PHIL 310

**Credits:** 3

**Grade Mode:** Letter

### **PHIL 417 - Seminar in Philosophy**

Examination of a special topic, a particular philosophical issue or the writings of a specific philosopher. Repeatable for credit, but not as a substitute for PHIL 403 or 425.

**Prerequisites & Notes:** 3 upper-division PHIL courses

**Credits:** 3

**Grade Mode:** Letter

### **PHIL 420 - Ethical Theory II**

An intensive examination of selected topics and methods in ethical theory.

**Prerequisites & Notes:** PHIL 320

**Credits:** 3

**Grade Mode:** Letter

### **PHIL 425 - Philosophy of Mind**

A study of the mind through the examination of such topics as the mind-body problem, intentionality, consciousness, 'qualia,' introspection and knowledge of other minds. Philosophical theories on these topics - such as dualism, behaviorism, type physicalism, functionalism and eliminativism.

**Prerequisites & Notes:** PHIL 102 plus one upper-division philosophy course.

**Credits:** 3

**Grade Mode:** Letter

### **PHIL 430 - Metaphysics II**

An intensive examination of selected topics and methods in metaphysics.

**Prerequisites & Notes:** PHIL 330

**Credits:** 3

**Grade Mode:** Letter

# Political Science

## Introduction

Politics and government affect us all. What we do, and what we think, is affected by the decisions and actions of state, local and national governmental institutions and political leaders. The objectives and policies of foreign countries also can affect our daily lives, particularly during periods of international tension and war.

Political science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern political science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

The political science faculty is committed to the belief that understanding politics and government is essential to a well-educated person, vital to democratic citizenship, indispensable to effective public service, and critical to the maintenance and ethical progress of a free society.

The political science curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in political science go on to law school, graduate school and into the professions; many others who are not majors take political science courses as an essential part of their liberal arts education.

## Faculty

**AMIR ABEDI** (2003) Chair. Professor. BA, University of Hanover, Germany; MA, PhD, University of British Columbia.

**BIDISHA BISWAS** (2006) Professor. BA, Hindu College, University of New Delhi; MA, PhD, University of Maryland.

**PAUL CHEN** (2002) Associate Professor. BA, University of California-Berkeley; JD, Southwestern University School of Law; MA, Biola University; MA, PhD, University of Southern California.

**SHIRIN DEYLAMI** (2008) Associate Professor BA University of California, Santa Cruz; MA University of North Carolina; PhD University of Minnesota

**TODD A. DONOVAN** (1991) Professor. BA, California State University, Sacramento; MA, PhD, University of California-Riverside.

**CYNTHIA HORNE** (2006) Professor. BA,

Dartmouth College; MS, Georgetown University; PhD, University of Washington.

**VICKI HSUEH** (2003) Professor. BA, Williams College; MA, PhD, Johns Hopkins University.

**VERNON D. JOHNSON** (1986) Professor. BA, Akron University; MA, PhD, Washington State University.

**KRISTEN D. PARRIS** (1991) Associate Professor. BA, MA, PhD, Indiana University.

**DEBRA J. SALAZAR** (1990) Professor. BS, University of California-Berkeley; MS, PhD, University of Washington.

**SARA SINGLETON** (2001) Associate Professor. BA, MA, PhD, University of Washington.

**CHRISTOPHER TOWLER** (2014) Assistant Professor. BA, University of Colorado; MA, PhD, University of Washington.

**SARA J. WEIR** (1989) Professor. BA, MA, Ball State University; PhD, University of Washington.

The department's faculty and staff invite questions about the program and its career potential. Persons seeking more information should visit the department in Arntzen Hall or call 360-650-3469. Written inquiries should be directed to the Department of Political Science, Western Washington University, Bellingham, Washington 98225-9082.

## Declaration Process

Students are eligible to declare the political science major and any of the majors combined with political science if they have completed any two of the following core courses: PLSC 250, PLSC 261, PLSC 271, PLSC 291, or the equivalent course(s) at another college or university. Due to high student demand and limited enrollment capacity, immediate access to specific courses cannot be guaranteed. Priority is given to seniors and juniors who need courses to graduate. Students should stop by the political science department office, Arntzen Hall 415, and an advisor will review their transcripts and assist them in completing the declaration process.

## Other Departmental Information

### The Curricula

The political science department offers several curricula leading to the Bachelor of Arts. These curricula are listed below, and their details are set forth following the list of the department faculty.

- Bachelor of Arts
  - Majors: political science, political science/economics, politics/philosophy/economics, political science/social studies.

- o Minors: political science, Canadian-American studies, East Asian studies

### Internships

Students are encouraged to obtain internships in state, local or national government agencies, political parties and interest groups. Initial contact with the intern coordinator should usually be at least one quarter in advance of registration if the student is interested in a local internship. In the case of state and federal agencies, longer lead times are necessary, and contact with the intern coordinator should be at least two quarters in advance of registration. Credit may be divided over two quarters where the internship placement requires a commitment of more than 10 weeks. No more than 10 credits of internship and independent study, combined, may be counted toward the major.

To qualify for an internship, requirements are:

- Completion of the core field requirements for the political science major (PLSC 250, PLSC 261, PLSC 271 and PLSC 291)
- Completion of at least one advanced course in the field of study to which the internship most closely relates
- Acceptability to the agency

### Independent Study

Students wishing to pursue research and directed reading in areas of the discipline where they have had prior course work may apply to do independent study projects. Enrollment is with the consent of the instructor and the chair. No more than 10 credits of independent study and internship, combined, may be counted toward the major.

## Bachelor of Arts

### Economics/Political Science, BA (see Economics Department)

Economics/Political Science, BA (see Economics Department)

### Political Science, BA

Department of Political Science, College of Humanities and Social Sciences

#### 60 credits

#### Introduction

Political Science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern Political Science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

The Political Science faculty is committed to the belief that understanding politics and government is essential to a well-educated person, vital to democratic citizenship, indispensable to effective public service, and critical to the maintenance and ethical progress of a free society.

#### Why Consider a Political Science Major?

The Political Science curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in Political Science go on to law school, graduate school and into related professions.

#### Contact Information

##### Political Science Department Chair

Amir Abedi  
Arntzen Hall 415  
360-650-2912  
Amir.Abedi@wwu.edu

##### Department Manager

Joan Blackwell  
Arntzen Hall 415  
360-650-2505  
Joan.Blackwell@wwu.edu

##### Program Coordinator

Erica Steele  
Arntzen Hall 415  
360-650-3469  
Erica.Steele@wwu.edu

# POLITICAL SCIENCE

## Sample Careers

Campaign Manager | Politician | Lobbyist | Attorney | Public Relations Specialist | FBI/CIA Agent | Consumer Advocate | Journalist | Labor Relations Specialist | City Manager | Author | Urban Planner

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students are eligible to declare the political science major and any of the majors combined with political science if they have completed any two of the following core courses: PLSC 250, 261, 271, 291, or the equivalent course(s) at another college or university. Due to high student demand and limited capacity, immediate access to specific courses cannot be guaranteed. Priority is given to seniors and juniors who need courses to graduate. Students should stop by the political science department office, Arntzen Hall 415, and an advisor will review their transcripts and assist them in completing the declaration process.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- PLSC 101, 435, 443, 444, 447 and 448 credits apply toward the major but do not count in any field. No more than 10 credits of internship or independent study may be counted toward the major.
- Core courses in each of the four fields are required. They are:
  - PLSC 250 for American Politics and Public Policy
  - PLSC 261 for Political Theory
  - PLSC 271 for International Relations
  - PLSC 291 for Comparative Politics
- Students must complete:
  - One upper division course in any two fields (no course may count for more than one field)
- One course from:
  - PLSC 431, PLSC 432, PLSC 433, PLSC 434

Balance of required 60 credits in any Political Science courses

Courses in the four fields are organized as follows:

- American Politics and Public Policy:
  - PLSC 250 - The American Political System
  - PLSC 311 - Introduction to Law and Judicial Process
  - PLSC 313 - Law, Courts, Politics, Society: Non-legal Perspectives of Law
  - PLSC 314 - The U.S. Supreme Court: Law and Politics
  - PLSC 321 - Queer and Lesbian Gay Bisexual Transgender Politics
  - PLSC 323 - African American Politics
  - PLSC 327 - Urban Politics and Policy in the U.S.
  - PLSC 345 - Women and Politics
  - PLSC 346 - Politics of Inequality
  - PLSC 347 - Race, Politics and Public Policy
  - PLSC 348 - Environmental Justice
  - PLSC 353 - State and Local Politics
  - PLSC 366 - Research in Politics
  - PLSC 414 - Constitutional Law: Separation of Powers and Federalism
  - PLSC 415 - Constitutional Law: Civil Rights and Liberties
  - PLSC 420 - Environmental Politics
  - PLSC 423 - The American Presidency
  - PLSC 427 - Policy-Making and Policy Analysis
  - PLSC 431 - Senior Seminar in American Politics and Public Policy
  - PLSC 449 - Politics and Social Change
  - PLSC 450 - Parties, Campaigns and Elections
  - PLSC 467 - Philosophical and Ethical Issues in Law



- PLSC 489 - Managing An International Ecosystem
- Political Theory:
  - PLSC 261 - Introduction to Political Theory
  - PLSC 361 - Classical Political Thought
  - PLSC 362 - Political Theory: Renaissance and Modern
  - PLSC 364 - Contemporary Political Theory
  - PLSC 432 - Senior Seminar - Political Theory
  - PLSC 462 - The Rise of Modern Political Economy
  - PLSC 463 - American Political Thought
  - PLSC 469 - Feminist Political Theory
  - PLSC 471 - Race and Political Theory
  - PLSC 472 - Comparative Political Thought
  - PLSC 473 - Politics and Culture
  - PLSC 480 - Politics, Government and Religion
  - PLSC 493 - Issues in Political Theory
- International Relations:
  - PLSC 271 - Introduction to International Relations
  - PLSC 310 - The International Security of East Asia
  - PLSC 312 - International Relations of South Asia
  - PLSC 315 - Why We Fight
  - PLSC 325 - Quebec Politics and Quebec-US Relations
  - PLSC 366 - Research in Politics
  - PLSC 370 - Global Issues in International Politics
  - PLSC 372 - International Political Economy
  - PLSC 376 - American Foreign Policy
  - PLSC 399 - The Politics of Democratization
  - PLSC 403 - The European Union and the Process of European Integration
  - PLSC 434 - Senior Seminar in International Politics
  - PLSC 436 - Managing Environmental Commons
- Comparative Politics:
  - PLSC 291 - Introduction to Comparative Politics
  - PLSC 301 - The British Parliamentary System
  - PLSC 302 - Western Europe
  - PLSC 307 - Government and Politics of East Asia
  - PLSC 308 - African Political Systems
  - PLSC 309 - Globalization from Political, Economic, and Social Perspectives
  - PLSC 312 - International Relations of South Asia
  - PLSC 315 - Why We Fight
  - PLSC 325 - Quebec Politics and Quebec-U.S. Relations
  - PLSC 366 - Research in Politics
  - PLSC 374 - Comparative Foreign Policy
  - PLSC 383 - Political Geography
  - PLSC 390 - The Politics of Development
  - PLSC 399 - The Politics of Democratization
  - PLSC 402 - Regional European Society and Politics
  - PLSC 403 - The European Union and the Process of European Integration
  - PLSC 406 - Canadian Government and Politics
  - PLSC 430 - Modern Chinese Politics
  - PLSC 433 - Senior Seminar in Comparative Politics
  - PLSC 436 - Managing Environmental Commons
  - PLSC 449 - Politics and Social Change
  - PLSC 453 - Comparative Electoral Systems
  - PLSC 491 - Issues in Political Economy

## Departmental Honors

### Entrance requirements

Students must satisfy the following eligibility requirements prior to registration for PLSC 496 Honors Tutorial. The student must:

## POLITICAL SCIENCE

- Be a declared political science major with senior standing
- Have a 3.50 GPA in all upper-division political science courses
- Have completed both of the following:
  - Core requirements for the major (PLSC 250, PLSC 261, PLSC 271 and PLSC 291)
  - Credit requirements in the area most closely related to the thesis topic
- Have completed one of the following:
  - Two years of foreign language with a B (3.0) or better GPA; the Honors advisor, at his or her discretion, may choose to waive this requirement for students who demonstrate a satisfactory reading knowledge of the language
  - PLSC 366 Research in Politics, or an equivalent class in social statistics under advisement, and earn a grade of B (3.0) or better
- Submit the completed Honors Contract to the political science department office with proper faculty signatures

### Completion Requirements

To graduate with honors in political science the student must:

- Maintain a 3.50 grade point average in all upper-division political science courses
- Complete 4-10 credits of PLSC 496 Honors Tutorial over two quarters under the supervision of a faculty thesis advisor
- Give an oral presentation of the thesis in arrangement with the faculty thesis advisor
- Submit a copy of the honors thesis to the political science department office before the final grade is assigned

## Political Science/Social Studies, BA

Department of Political Science, College of Humanities and Social Sciences

### 92-94 credits

#### Introduction

Political Science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern political science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

The Political Science faculty are committed to the belief that understanding politics and government is essential to a well-educated person, vital to democratic citizenship, indispensable to effective public service, and critical to the maintenance and ethical progress of a free society.

#### Why Consider a Political Science/Social Studies Major?

The Political Science curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in Political Science go on to law school, graduate school and into the professions.

Secondary Education students who wish to be endorsed in Social Studies may choose this major. However, the Political Science/Social Studies degree does not require that a student pursue a teaching certificate.

To receive a recommendation for state of Washington certification, students must complete the "teacher certification" program, including the contents method course SEC 426, which is offered by the Department of Secondary Education as 1) part of the undergraduate Bachelor of Arts degree, or 2) as a post-baccalaureate program, or 3) as a part of the Master's in Teaching degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Completion of this combined major leads to endorsement in social studies.

## Contact Information

<b>Political Science Department Chair</b>	<b>Department Manager</b>	<b>Program Coordinator</b>
Amir Abedi Arntzen Hall 415 360-650-2912 Amir.Abedi@wwu.edu	Joan Blackwell Arntzen Hall 415 360-650-2505 Joan.Blackwell@wwu.edu	Erica Steele Arntzen Hall 415 360-650-3469 Erica.Steele@wwu.edu
<b>Secondary Education Information</b>	<b>Teacher Education Admissions</b>	
Janna Cecka Miller Hall 401C 360-650-3347 wce.wwu.edu/sec/secondary-education	Miller Hall 150 360-650-3313 wce.wwu.edu/admissions/secondary-education	

## Sample Careers

Teacher - Secondary Education | Attorney | Consumer Advocate | City Manager | Politician | Public Relations Specialist | Journalist | Author | Lobbyist | FBI/CIA Agent | Labor Relations Specialist | Urban Planner

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students are eligible to declare the political science major and any of the majors combined with political science if they have completed any two of the following core courses: PLSC 250, 261, 271, 291, or the equivalent course(s) at another college or university. Due to high student demand and limited capacity, immediate access to specific courses cannot be guaranteed. Priority is given to seniors and juniors who need courses to graduate. Students who have no transfer credits for political science course work, stop by the political science department office, Arntzen Hall 415, with an unofficial Western Washington University transcript showing the two completed courses from the list above. If you have transfer credits for political science coursework from another institution, also bring an unofficial transcript from that institution showing the political science courses completed.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better

**Requirements**

- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - ANTH 201 - Introduction to Cultural Anthropology
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)
- One course from:
  - ECON 207 - Introduction to Macroeconomics
  - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
- One course from:
  - ENVS 221 - Geographic Information Science Survey
  - or two additional geography credits

## POLITICAL SCIENCE

☐ 18 additional credits from:

- PLSC 311 - Introduction to Law and Judicial Process
- PLSC 313 - Law, Courts, Politics, Society: Non-legal Perspectives of Law
- PLSC 314 - The U.S. Supreme Court: Law and Politics
- PLSC 321 - Queer and Lesbian Gay Bisexual Transgender Politics
- PLSC 345 - Women and Politics
- PLSC 346 - Politics of Inequality
- PLSC 347 - Race, Politics and Public Policy
- PLSC 353 - State and Local Politics
- PLSC 414 - Constitutional Law: Separation of Powers and Federalism
- PLSC 415 - Constitutional Law: Civil Rights and Liberties
- PLSC 420 - Environmental Politics
- PLSC 423 - The American Presidency
- PLSC 427 - Policy-Making and Policy Analysis
- PLSC 431 - Senior Seminar in American Politics and Public Policy
- PLSC 449 - Politics and Social Change
- PLSC 450 - Parties, Campaigns and Elections
- PLSC 467 - Philosophical and Ethical Issues in Law
- PLSC 489 - Managing An International Ecosystem

☐ 8 credits from:

- PLSC 261 - Introduction to Political Theory
- PLSC 361 - Classical Political Thought
- PLSC 362 - Political Theory: Renaissance and Modern
- PLSC 364 - Contemporary Political Theory
- PLSC 432 - Senior Seminar - Political Theory
- PLSC 462 - The Rise of Modern Political Economy
- PLSC 463 - American Political Thought
- PLSC 469 - Feminist Political Theory
- PLSC 471 - Race and Political Theory
- PLSC 472 - Comparative Political Thought
- PLSC 473 - Politics and Culture
- PLSC 480 - Politics, Government and Religion
- PLSC 493 - Issues in Political Theory

☐ 8 credits from:

- PLSC 271 - Introduction to International Relations
- PLSC 291 - Introduction to Comparative Politics
- PLSC 301 - The British Parliamentary System
- PLSC 302 - Western Europe
- PLSC 307 - Government and Politics of East Asia
- PLSC 308 - African Political Systems
- PLSC 309 - Globalization from Political, Economic, and Social Perspectives
- PLSC 310 - The International Security of East Asia
- PLSC 312 - International Relations of South Asia
- PLSC 366 - Research in Politics
- PLSC 370 - Global Issues in International Politics
- PLSC 372 - International Political Economy
- PLSC 376 - American Foreign Policy
- PLSC 390 - The Politics of Development
- PLSC 399 - The Politics of Democratization
- PLSC 402 - Regional European Society and Politics
- PLSC 403 - The European Union and the Process of European Integration
- PLSC 406 - Canadian Government and Politics
- PLSC 430 - Modern Chinese Politics
- PLSC 433 - Senior Seminar in Comparative Politics
- PLSC 434 - Senior Seminar in International Politics
- PLSC 436 - Managing Environmental Commons
- PLSC 453 - Comparative Electoral Systems

☐ Balance of credits in political science electives

## Politics/Philosophy/Economics, BA (see Economics Department)

Politics/Philosophy/Economics, BA (see Economics Department)

### Minor

#### Political Science Minor

Department of Political Science, College of Humanities and Social Sciences

#### 25 credits in political science courses

#### Why Consider a Political Science Minor?

Many others who are not majors take political science courses as an essential part of their liberal arts education. Further, students with a Political Science Major or Minor can go on to law school, graduate school in international business, international relations, public policy and teaching. In sum, political science complements a number of other majors across the social sciences, humanities, natural sciences, and professional degrees, and can enrich inquiry into the problems of sustainability, cultural diversity, and internationalization.

Contact Information		
<b>Political Science Department Chair</b>	<b>Department Manager</b>	<b>Program Coordinator</b>
Amir Abedi	Joan Blackwell	Erica Steele
Arntzen Hall 415	Arntzen Hall 415	Arntzen Hall 415
360-650-2912	360-650-2505	360-650-3469
Amir.Abedi@wwu.edu	Joan.Blackwell@wwu.edu	Erica.Steele@wwu.edu

#### Sample Careers

The Political Science minor can complement other areas of study and prepare you for a host of careers, both domestic and international such as NGOs, government agencies, and business

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

You can declare the Political Science minor at any time. Stop by the Political Science department office at Arntzen Hall 415.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

Note: PLSC 101 does not count toward minor.

- Two courses from:
  - PLSC 250 - The American Political System
  - PLSC 261 - Introduction to Political Theory
  - PLSC 271 - Introduction to International Relations
  - PLSC 291 - Introduction to Comparative Politics
- At least 10 credits of upper-division courses in political science
- No more than 12 transfer credits in political science courses will be accepted toward the minor

## Political Science Courses

### **PLSC 101 - Government and Politics in the Modern World**

Introduction to concepts of politics; types of governments and political problems in the world today.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **PLSC 250 - The American Political System**

Consideration of the system and process of American politics and government with primary focus on the national level.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **PLSC 261 - Introduction to Political Theory**

Major concepts of Western political theory - thematic or historical approach.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **PLSC 271 - Introduction to International Relations**

The politics of war, peace, and international economic relations.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **PLSC 291 - Introduction to Comparative Politics**

Basic structures, functions and sociocultural environments of foreign political systems; methods of comparative study.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **PLSC 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for

General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **PLSC 301 - The British Parliamentary System**

The British parliamentary political system: analysis of British state and political structures and functions; analysis of British political parties; examination of the British service state.

**Prerequisites & Notes:** PLSC 101 or PLSC 250 or PLSC 291  
**Credits:** 5  
**Grade Mode:** Letter

### **PLSC 302 - Western Europe**

Governments and politics of selected western European states.

**Prerequisites & Notes:** PLSC 101 or PLSC 291  
**Credits:** 5  
**Grade Mode:** Letter

### **PLSC 307 - Government and Politics of East Asia**

Survey course covering the domestic political systems of China, Japan and Korea. Also offered as EAST 307.

**Prerequisites & Notes:** Sophomore status or instructor of permission  
**Credits:** 5  
**Grade Mode:** Letter

### **PLSC 308 - African Political Systems**

Post-colonial political development in Africa focusing on ideologies and strategies for achieving legitimate government and improved living standards. Several country studies are included to illustrate outcomes associated with different strategies for development.

**Prerequisites & Notes:** PLSC 101 or PLSC 291  
**Credits:** 5  
**Grade Mode:** Letter

### **PLSC 309 - Globalization from Political, Economic, and Social Perspectives**

This course examines the political, economic, social, and cultural causes and consequences of globalization. In particular, the course explores the complementarities and contradictions between the different aspects of globalization.

**Prerequisites & Notes:** PLSC 271 or PLSC 291 or IBUS 370

**Credits:** 5  
**Grade Mode:** Letter

**PLSC 310 - The International Security of East Asia**

The issues of national and human security in the East Asian Region. Also offered as EAST 310.

**Prerequisites & Notes:** Sophomore status or instructor permission  
**Credits:** 5  
**Grade Mode:** Letter

**PLSC 311 - Introduction to Law and Judicial Process**

Origin and development of basic concepts and practices of law with emphasis upon legal reasoning and values in contemporary societies.

**Prerequisites & Notes:** PLSC 250; only 1 of PLSC 311, MGMT 271 or FAIR 311B may be taken for GUR credit.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

**PLSC 312 - International Relations of South Asia**

A survey of the security relations between India, Pakistan and Afghanistan. The course will also relate these countries to US foreign policy goals and interest.

**Prerequisites & Notes:** PLSC 271  
**Credits:** 4  
**Grade Mode:** Letter

**PLSC 313 - Law, Courts, Politics, Society: Non-legal Perspectives of Law**

An introduction to how law interacts with and is applied to different social and cultural contexts. Covers how societies create law, and how law, in turn, affects societies. Specific topics covered may change quarter to quarter and may include: the role of law and courts in maintaining and reforming society; how changes in society lead to changes in its laws; how different groups use law and courts to advance their social and political agendas; and the concepts, assumptions, and methods used by social scientists to study these law-related activities and processes. This course does not presume any knowledge of the legal system beyond what is commonly known by persons educated in industrial or post-industrial societies.

**Prerequisites & Notes:** PLSC 250 or instructor permission

**Credits:** 5  
**Grade Mode:** Letter

**PLSC 314 - The U.S. Supreme Court: Law and Politics**

Introduction to the U.S. Supreme Court as a unique legal-political institution within the American political system. Topics covered include: Court procedures and decision-making, constitutional history, the nature of its judicial power, the Court's changing role in American politics and society, and the divide between "legal insiders" and political scientists in terms of how each group studies and views the Court's decision-making. No prior knowledge of the Supreme Court is presumed.

**Prerequisites & Notes:** PLSC 250 or instructor permission  
**Credits:** 5  
**Grade Mode:** Letter

**PLSC 315 - Why We Fight**

This course explores different facets of political violence. Why do states go to war with each other? What, if anything, can the international community do to prevent or stop civil wars? Under what conditions is international humanitarian intervention justified? How have trends in conflict changed in recent years? The course has significant reading and writing components. Students are expected to be familiar with international relations theories and the study of comparative politics.

**Prerequisites & Notes:** PLSC 250 or PLSC 271  
**Credits:** 4  
**Grade Mode:** Letter

**PLSC 321 - Queer and Lesbian Gay Bisexual Transgender Politics**

Examines how queer and lesbian, gay, bisexual, and transgender (LGBT) citizens have organized to achieve social change. Focuses on how Queer/LGBT movements have engaged in electoral, judicial, legislative, protest and other forms of politics.

**Credits:** 5  
**Grade Mode:** Letter

**PLSC 323 - African American Politics**

An examination of the political strategies the African American community has undertaken to combat myriad barriers that exist in its quest for inclusion.

**Prerequisites & Notes:** Sophomore status or

## POLITICAL SCIENCE

instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 325 - Quebec Politics and Quebec-US Relations**

This course offers an introduction to Québec politics and Québec-U.S. Relations. Part I uses a historical-institutionalist approach to present the main conceptual and theoretical elements on Québec politics and offers an overview of recent evolution in Quebec's political life. Part II discusses three crucial themes in contemporary Québec politics: the evolution of Québec's identity; the future of Québec's independence movement; and the road ahead for Québec's international relations. Part III shows how Québec and the United States are integrated and offers an overview of the actors and issues in Québec-U.S. relations. Also offered as C/AM 325.

**Prerequisites & Notes:** PLSC 101 or C/AM 200; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 327 - Urban Politics and Policy in the U.S.**

This course introduces students to major actors, institutions, processes, and policies of substate governments in the United States while focusing on issues of race, class and privilege at the local level.

**Prerequisites & Notes:** ENG 101 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 345 - Women and Politics**

The history and ideas of the women's movement; investigation of the changing role of women in American politics including legal status, economic position and political behavior.

**Prerequisites & Notes:** PLSC 101 or PLSC 250

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 346 - Politics of Inequality**

Survey of the causes and consequences of inequality, particularly economic inequality, and the political, social and economic institutions and processes supporting group subordination, racism, sexism and poverty.

**Prerequisites & Notes:** PLSC 250

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **PLSC 347 - Race, Politics and Public Policy**

The historical and political bases of contemporary racial conflict in the United States.

**Prerequisites & Notes:** PLSC 250 or equivalent

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 348 - Environmental Justice**

Dimensions of social justice as they relate to environmental policies, practices, and movements.

**Prerequisites & Notes:** Sophomore status.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 353 - State and Local Politics**

Politics of states, urban regions and suburbs. Inter-jurisdictional conflict over growth or development. Federal relations, direct democracy and state policy making.

**Prerequisites & Notes:** PLSC 250

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 355 - Bureaucratic Politics**

This is an introductory examination of the principles, structure, functions and the processes of federal administrative agencies of the United States Government.

**Prerequisites & Notes:** PLSC 250

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 361 - Classical Political Thought**

Exploration of emerging themes in classical political thought, such as Greek, Roman, Judeo-Christian, and Islamic traditions.

**Prerequisites & Notes:** HIST 111 or LBRL 121 or PLSC 261 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 362 - Political Theory: Renaissance and Modern**

Exploration of themes in Renaissance and Modern political thought, with particular focus on the nature of freedom, right, individuality, communal obligation, and the rise of the nation-state.



**Prerequisites & Notes:** HIST 112 or LBRL 121 or PLSC 261 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 364 - Contemporary Political Theory**

Examines central thinkers and themes in contemporary political theory. Topics may include: radical democracy, liberalism and rights, gender and sexuality, race and ethnicity, cultural diversity, postcolonial and de-colonial struggles, power, revolution, and modern citizenship.

**Prerequisites & Notes:** PLSC 261

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 366 - Research in Politics**

Fundamentals of research design, including basic methods for the collection and statistical analysis of political and administrative data.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 370 - Global Issues in International Politics**

Problems of global dimensions (population, food, resources, environment, nuclear proliferation, terrorism) and international efforts to solve them.

**Prerequisites & Notes:** PLSC 271 or PLSC 291 or IBUS 370

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 372 - International Political Economy**

The politics of international trade, investment, lending and economic development.

**Prerequisites & Notes:** PLSC 271 or PLSC 291 and any economics course; or IBUS 370

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **PLSC 374 - Comparative Foreign Policy**

Discussion and critical analysis of the process by which political elites formulate foreign policy with a specific emphasis on variables that influence foreign policy behavior. The course takes a comparative case study approach to highlight the importance of context in foreign policy behavior by individual states. This is an 'active learning' course which requires students to participate in simulations involving foreign policy crisis.

**Prerequisites & Notes:** PLSC 250 or PLSC 271.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 376 - American Foreign Policy**

Background and organization of American foreign policy; the conduct of diplomatic relations with other states; current issues and problems in foreign affairs.

**Prerequisites & Notes:** PLSC 271 or PLSC 291.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 383 - Political Geography**

Discussion and analysis of the geographical basis of power in political decision making. Topics include: territoriality and the state system; geographical bases of political power; spatial perceptions, arrangements and fragmentation and political districting and electoral systems.

**Prerequisites & Notes:** PLSC 101 or PLSC 250 or PLSC 271 or PLSC 291

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 390 - The Politics of Development**

Political processes in developing countries, colonialism, nationalism, alternative models of political and economic development; problems of instability, military rule, population, famine, debt and other issues confronting developing nations.

**Prerequisites & Notes:** PLSC 271 or PLSC 291

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 399 - The Politics of Democratization**

The domestic and international challenges of democratization.

**Prerequisites & Notes:** PLSC 271 or PLSC 291.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## POLITICAL SCIENCE

### **PLSC 402 - Regional European Society and Politics**

Government and society in selected countries from the Scandinavian, Alpine, Benelux and Iberian European regions.

**Prerequisites & Notes:** PLSC 101 or PLSC 291

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 403 - The European Union and the Process of European Integration**

Explores the process of European integration after World War II and the European Union. Topics covered include integration theories, the historical development of the EU, its institutional structure, as well as various policy areas.

**Prerequisites & Notes:** None

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 406 - Canadian Government and Politics**

Canadian political institutions and process, relations with U.S., current topics including regional tensions, the environment, and First Nations.

**Prerequisites & Notes:** PLSC 250, PLSC 291 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 414 - Constitutional Law: Separation of Powers and Federalism**

Critical analysis of U.S. Supreme Court decisions that interpret parts of the U.S. Constitution relating to horizontal separation of powers among the branches of the federal government and vertical separation of powers between the federal government and the states (a.k.a. federalism).

**Prerequisites & Notes:** PLSC 250 and one from: PLSC 311, PLSC 314, FAIR 211B or MGMT 271

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 415 - Constitutional Law: Civil Rights and Liberties**

Critical analysis of U.S. Supreme Court decisions that interpret the Bill of Rights and the Equal Protection and Due Process Clauses of the Fourteenth Amendment in the U.S. Constitution.

**Prerequisites & Notes:** PLSC 250 and one from: PLSC 311, PLSC 314; FAIR 211B or MGMT 271.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 420 - Environmental Politics**

Examination of contending perspectives on environmental problems. Focus on how these perspectives are rooted in political philosophy, their roles in the development of environmental movements, and the implications for public policy. Also offered as ENVS 458.

**Prerequisites & Notes:** PLSC 101 or PLSC 250

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 423 - The American Presidency**

The growth of presidential power; the institutionalized presidency and styles of presidential leadership. The president as party leader, policy initiator, chief executive, commander-in-chief and head of foreign relations.

**Prerequisites & Notes:** PLSC 250

**Credits:** 3

**Grade Mode:** Letter

### **PLSC 427 - Policy-Making and Policy Analysis**

Organizational and societal policy-making, and the nature and consequences of policy for various groups and sectors of the polity; the possibility and problems of objective analysis conducted from within the boundaries of the subject political system.

**Prerequisites & Notes:** PLSC 250

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 430 - Modern Chinese Politics**

An introduction to politics and society in modern China: state structures, political culture, state-society relations, policy-making and foreign relations. Also offered as EAST 430.

**Prerequisites & Notes:** PLSC 291 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 431 - Senior Seminar in American Politics and Public Policy**

Capstone seminar in American politics and public policy. Topics vary but emphasis is on political institutions and processes and public policy. Repeatable with various topics to a maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political

science and 30 credits in political science.

**Credits:** 3-5

**Grade Mode:** Letter

### **PLSC 432 - Senior Seminar - Political Theory**

Capstone seminar in political theory. Involves reading and research in original sources on topics of central importance to politics. Emphasis is on critical examination and discussion of ideas. Repeatable with various topics to a maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.

**Credits:** 3-5

**Grade Mode:** Letter

### **PLSC 433 - Senior Seminar in Comparative Politics**

Capstone seminar in comparative politics. Topics vary but emphasis is on comparative issues and approaches. Repeatable with various topics to a maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.

**Credits:** 3-5

**Grade Mode:** Letter

### **PLSC 434 - Senior Seminar in International Politics**

Capstone seminar in international relations. Topics vary but emphasis is on the interactions of state and non-state actors across international boundaries. Repeatable with various topics to a maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.

**Credits:** 3-5

**Grade Mode:** Letter

### **PLSC 435 - Special Topics in Environmental Politics**

Analysis of current topics related to environment and politics. Topics vary. Repeatable with various topics to a maximum of 8 credits

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.

**Credits:** 3-5

**Grade Mode:** Letter

### **PLSC 436 - Managing Environmental Commons**

Explores how political, economic and social institutions affect the management and

sustainability of shared environments, both local and global.

**Prerequisites & Notes:** One upper-division course in political science or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 443 - Legislative Internship**

Internship in the Washington state Legislature during winter quarter; assignment is primarily as research assistant to a legislator. Enrollment limited to the number of internships allocated by the Legislature. Open only to juniors and seniors, competitively selected. No more than 10 credits of internship may be counted toward the major without the permission of the chair. Repeatable to a maximum of 15 credits.

**Credits:** 5-15

**Grade Mode:** Letter

### **PLSC 444 - Administrative Internships**

Internships in administrative agencies and other public service settings. Priority given to seniors. Requests for internships should be filed with the departmental intern coordinator one quarter in advance of registration for this course. No more than 10 credits in internship may be counted toward the major without the permission of the chair. Credit may be divided over two quarters where the internship placement requires a commitment of more than 10 weeks. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** Two courses in appropriate field in discipline

**Credits:** 3-15

**Grade Mode:** Letter

### **PLSC 447 - Teaching Internship**

Assists faculty member in conduct of political science course. No more than 10 cr in internship may be counted toward the major without the permission of the chair. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** Two from: PLSC 250, PLSC 261, PLSC 271, PLSC 291 plus 10 upper-division credits in political science.

**Credits:** 2-5

**Grade Mode:** Letter

### **PLSC 448 - Research Internship**

Student will work closely with one faculty member, providing assistance with research. Course is structured on an apprenticeship model. Repeatable up to 10 credits.

## POLITICAL SCIENCE

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2-5

**Grade Mode:** Letter

### **PLSC 449 - Politics and Social Change**

Theories linking social change and politics. The role of ideas and ideology, mass movements, political institutions, social disruption and violence in causing and directing change.

**Prerequisites & Notes:** PLSC 101 or PLSC 250

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 450 - Parties, Campaigns and Elections**

Political parties, voters and voting behavior, candidate and campaign strategy, the resources of politics; workers, money, and mass media.

**Prerequisites & Notes:** PLSC 250

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 453 - Comparative Electoral Systems**

Examines how institutional rules affect party systems, electoral outcomes, prospects for small parties, and fairness in translating votes into seats. Survey of politics of electoral system reform in modern democracies. Not offered every year.

**Prerequisites & Notes:** PLSC 101 or PLSC 291 or PLSC 450.

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 462 - The Rise of Modern Political Economy**

An examination of the conceptual, ethical, and ideological underpinnings of political economy and the implications for contemporary public policy.

**Prerequisites & Notes:** PLSC 261 or HIST 113; and ECON 206 or HNRS 209 or ECON 207 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 463 - American Political Thought**

Major concepts in American political thought from the Colonial period to the present.

**Prerequisites & Notes:** PLSC 261 or HIST 103 or HIST 104 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 467 - Philosophical and Ethical Issues in Law**

Philosophical and ethical inquiry into legal issues and problems. Topics covered may include the philosophical and ethical foundations of law; law in relation to justice, morality, and equality; and philosophical and ethical inquiry into specific areas or current topics of law (e.g. tort, criminal, property, and/or constitutional law; capital punishment, affirmative action, same-sex marriage, and abortion).

**Prerequisites & Notes:** PLSC 250, PLSC 311, plus one additional upper-division course in law or political theory.

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 469 - Feminist Political Theory**

Early feminists to contemporary theoretical critiques and contributions. Topics such as feminist conceptions of philosophy of science, eco-feminism and post-modernism. Not offered every year.

**Prerequisites & Notes:** PLSC 261 or any 400-level political theory course

**Credits:** 4

**Grade Mode:** Letter

### **PLSC 471 - Race and Political Theory**

This course examines the role of race in political theory, with varying emphases, including but not limited to: critical race theory, African-American political theory, the politics of decolonization, Latino/a political theory, Islamic political thought, Asian-American political thought, feminist and queer theory, post-racial, activist and intersectional approaches.

**Prerequisites & Notes:** PLSC 261 or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 472 - Comparative Political Thought**

A critical examination of the relationship between Western and non-Western political thought. The course may include examinations of Islamic, Chinese, South Asian, African and Latin American political thought.

**Prerequisites & Notes:** PLSC 261 or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **PLSC 473 - Politics and Culture**

An analysis of the relationship between politics and culture with a focus in political theory. Course may include attention to film, television, public art, and/or photography.

**Prerequisites & Notes:** PLSC 261 or instructor permission

**Credits:** 5

**Grade Mode:** Letter

#### **PLSC 480 - Politics, Government and Religion**

How political activity and government structures relate to religious perceptions and organizations. Not offered every year.

**Prerequisites & Notes:** instructor permission

**Credits:** 4

**Grade Mode:** Letter

#### **PLSC 489 - Managing An International Ecosystem**

A research seminar that examines how economic, environmental, social and political agendas affect the shared international ecosystem - Georgia Basin/Puget Sound. Course focuses on the interests of various stakeholders and the efforts taken to manage the cross-border environmental issues. The course involves cross-border travel and field work and thus participants require a passport. In some years, the course will involve collaborations with students and faculty from Canadian Universities. Also offered as C/AM 489 and ESTU 489.

**Prerequisites & Notes:** Junior or Senior status.

**Credits:** 5

**Grade Mode:** Letter

#### **PLSC 491 - Issues in Political Economy**

Discussion and analysis of selected issues of significant political and economic content. Also offered as ECON 491. Not offered every year.

**Prerequisites & Notes:** senior standing political science/economics combined major or political science major/economics minor

**Credits:** 4

**Grade Mode:** Letter

#### **PLSC 493 - Issues in Political Theory**

Discussion and analysis of specialized and timely issues in political theory. Possible topics include, but are not limited to: comparative political theory; Islamic political thought; toleration; cosmopolitanism; humanitarian intervention; race, gender, and sexuality; aesthetics and rhetoric. Repeatable up to 8 credits.

**Prerequisites & Notes:** PLSC 261 or any 400-level political theory course.

**Credits:** 4

**Grade Mode:** Letter

#### **PLSC 496 - Honors Tutorial**

Repeatable to a maximum of 10 cr.

**Credits:** 2-5

**Grade Mode:** Letter

# Psychology

## Introduction

Most of the major problems facing the people of the world today — hunger, overpopulation, the continuing threat of war, prejudice, pollution, drug addiction — are people problems; people have created them, and it will be people who must and will find solutions to them. Psychology, as the scientific study of mind and behavior, will help provide the answers to many of these pressing problems.

Psychology's attempt to understand the human condition takes many approaches. Some psychologists study brain chemistry and its relation to behavior, while others study the behavior of individuals in groups (for example, in a religious cult). Still others are engaged in providing counseling or psychotherapy to people who are mentally ill or who are having difficulty in coping with the demands of life. With a faculty of 28 men and women, all of whom hold doctoral degrees, the department is able to offer a program of study which provides a solid foundation in the general concepts and methods of psychology, as well as courses and programs for students in many of the more specialized areas of this large and exciting field.

The Department of Psychology has limited the number of credits required for a major in psychology so that students may develop minors or a second major in another department. The core program in general psychology is designed to ensure that all majors will develop a sound basic background in psychology which will provide effective preparation for advanced study as well as contribute significantly to a liberal education.

A very important kind of learning takes place when students become personally involved in psychological research. Students are encouraged to become active participants in their own research projects or to cooperate with a faculty member in his or her ongoing research. It also is recommended that students seek participation in one of the off-campus field experiences which are available.

In addition to its undergraduate offerings, the department also offers three graduate programs, an MS in experimental psychology with an optional specialization in measurement, evaluation, and statistical analysis (MESA); an MS in mental health counseling; and an MEd in school counseling. Complete descriptions of these programs may be found in the Graduate School section of this catalog.

## Faculty

**LAWRENCE A. SYMONS** (2000) Chair and Associate Professor. BA, MA, University of British Columbia; PhD, University of Western Ontario.

**ROBINDER P. BEDI** (2008) Associate Professor BA, MA, Simon Fraser University, PhD, University of British Columbia

**CHRISTINA A. BYRNE** (1997) Associate Professor. BS, Virginia Commonwealth University; MS, PhD, University of Georgia.

**JEFFREY B. CARROLL** (2012) Assistant Professor. BS, PhD, University of British Columbia.

**ANNA C. CIAO** (2014) Assistant Professor. BA, Trinity University; MA, PhD, University of Hawaii-Mānoa.

**ALEXANDER M. CZOPP** (2008) Associate Professor BA, St. Mary's College of Maryland, MS, PhD, University of Kentucky

**JENNIFER DEVENPORT** (2003) Associate Professor. BA, Boise State University; MS, PhD, Florida International University; MLS, University of Nebraska.

**DALE L. DINNEL** (1986) Professor. BS, MAT, MA, PhD, University of Nebraska.

**JANET M. FINLAY** (1999) Associate Professor. BS, University of Victoria; PhD, University of British Columbia.

**DEBORAH K. FORGAYS** (1994) Professor. BA, MEd, PhD, University of Vermont.

**JAMES GRAHAM** (2006) Associate Professor. BA, Purdue University; MA, Pepperdine University; PhD, Texas A&M University.

**REBECCA GOODVIN** (2007) Associate Professor. BA, Gonzaga University; MA, PhD, University of Nebraska.

**JEFFREY W. GRIMM** (2001) Professor. BA, Whitman College; MS, PhD, Washington State University.

**DIANA GRUMAN** (2003) Associate Professor. BA, Whitman College; MEd, Western Washington University; PhD, University of Washington.

**TODD HASKELL** (2006) Associate Professor. BA, Dartmouth College; PhD, University of Southern California.

**IRA E. HYMAN, JR.** (1991) Professor. BA, Duke University; MA, PhD, Emory University.

**KELLY J. JANTZEN** (2007) Associate Professor. BA, PhD, Simon Fraser University.

**MCNEEL GORDON JANTZEN** (2009) Assistant Professor. BA, MA, PhD, Florida Atlantic University.

**JEFF KING** (2007) Professor. BA, University of Oklahoma; MS, PhD, Pennsylvania State University.

**BARBARA J. LEHMAN** (2005) Associate Professor. BA, Drew University; MA, PhD, Claremont Graduate University.

**KRISTI M. LEMM** (2000) Associate Professor. BA, Columbia University; MS, PhD, Yale University.

**MICHAEL J. MANA** (1999) Associate Professor. BS, Washington State University; MA, PhD, University of British Columbia.

**ADRIANA M. MANAGO** (2012) Assistant Professor. BS, West Virginia University; MA, San Jose State University; PhD, University of California, Los Angeles.

**KATE C. McLEAN** (2007) Associate Professor. BA, Mills College; PhD, University of California-Santa Cruz.

**LUCY D. PURGASON** (2013) Assistant Professor. BA, MS, Ed S, PhD, University of North Carolina.

**CATHERINE A. RIORDAN** (2009) Professor. BS, Eastern Michigan University; PhD, State University of New York at Albany.

**JACQUELINE ROSE** (2008) Assistant Professor. BS, University of Calgary; MA, Queen's University; PhD, University of British Columbia.

**TINA DU ROCHER SCHUDLICH** (2006) Assistant Professor. BA, University of Michigan; MA, PhD, University of Notre Dame.

**CRISTINA SAMPAIO** (2006) Associate Professor. PhD, University of Illinois at Urbana-Champaign.

**DAVID N. SATTLER** (2000) Professor. BA, San Diego State University; MA, PhD, Michigan State University.

**JOSEPH E. TRIMBLE** (1978) Professor. BA, Waynesburg College; MA, University of New Hampshire; PhD, University of Oklahoma; RF, Radcliffe Institute, Harvard University.

## Declaration Process

Students wishing to declare a major in psychology must have:

1. completed at least 75 credits;
2. successfully completed or be currently enrolled in Psy 301;
3. achieved a Western GPA (based on at least 12 credits) of 2.70 or higher. A GPA of 3.0 in all psychology courses taken at Western, including PSY 301, may substitute for the overall 2.70 GPA.

## Other Departmental Information

### Mid-Program Checkpoint

Students seeking to complete a BA in psychology within four years should have completed an introductory psychology class (e.g., PSY 101 or a comparable course at another school) and 15 other credits in psychology by the start of their junior year.

### Graduate Study

For concentrations leading to the Master of Education or the Master of Science degrees, see the Graduate School section of this catalog.

# Bachelor of Arts in Education

## Psychology: Human Development — Elementary, BAE

Department of Psychology, College of Humanities and Social Sciences

**59-60 credits**

### Introduction

Psychology's attempt to understand the human condition takes many approaches. Some psychologists study brain chemistry and its relation to behavior, while others study the behavior of individuals in groups. Still others are engaged in providing counseling or psychotherapy to people who are mentally ill or who are having difficulty in coping with the demands of life. With a faculty of over 30 women and men, all of whom hold a doctoral degree; the Department offers a program of study which provides a solid foundation in the general concepts and methods of Psychology, as well as courses and programs for students in many of the more specialized areas.

The program in Psychology: Human Development is designed to provide students in the Elementary Education program with an in-depth understanding of theory, research, and application in developmental psychology, and a sound background in general psychology. The program is designed to allow students flexibility in selecting psychology courses with the assistance of their advisor.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

# PSYCHOLOGY

## Why Consider a Psychology: Human Development - Elementary Major?

Many of the major issues facing children and schools today – school readiness, achievement motivation, testing, classroom behavior, stereotyping, bullying, family and neighborhood stressors – are issues of human psychology. Psychology, as the scientific study of mind and behavior, will help provide answers to these problems, as well as contribute to the scientific understanding of how children best think and learn.

Contact Information		
<b>Department Chair</b> Dr. Larry Symons Academic Instruction Center 440 360-650-3515 Larry.Symons@wwu.edu	<b>Undergraduate Advisor</b> Adriana Manago Academic Instruction Center 190 360-650-7973 Adriana.Manago@wwu.edu	<b>Undergraduate Advisor</b> Tina Du Rocher Schudlich Academic Instruction Center 476 360-650-7636 Tina.DuRocherSchudlich@wwu.edu
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wwu.edu/eled/elementary-education">https://wce.wwu.edu/eled/elementary-education</a>	<b>Teacher Education Admissions</b> Miller Hall 214 360-650-3313 <a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948
Sample Careers		
Elementary Teacher		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

**Pre-Major:** To be eligible, students must have completed 15 credits in Psychology with a minimum of 5 credits at Western.

### Admissions:

Contact the department to declare the major once you have completed the following requirements:

- Completed a total of at least 75 credits
- Successfully completed or be currently enrolled in PSY 301
- Achieved a Western Cumulative GPA (based on at least 12 credits) of 2.70 or higher
- A GPA of 3.0 in all Psychology courses taken at Western, including PSY 301, may substitute for the cumulative GPA

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

## Requirements

- PSY 101 - Introduction to Psychology
- Three courses from:
  - PSY 210 - Cognition
  - PSY 220 - Behavioral Neuroscience
  - PSY 240 - Social Psychology
  - PSY 250 - Introduction to Abnormal Psychology
- PSY 230 - Lifespan Developmental Psychology
- PSY 301 - Overview of Research Methods
- Three upper division courses from the list below:
  - PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches
  - PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches
  - PSY 310 - Sensation and Perception
  - PSY 311 - Human Memory



- PSY 318 - Language, Brain, and Mind
- PSY 319 - Cognitive Neuroscience
- PSY 320 - Topics in Behavioral Neuroscience
- PSY 322 - Motivation
- PSY 323 - Psychopharmacology
- PSY 324 - Comparative Psychology
- PSY 331 - Adult Development and Aging
- PSY 340 - Environmental Psychology
- PSY 341 - Psychology and Culture
- PSY 342 - Social Cognition
- PSY 343 - Social Processes
- PSY 344 - Psychology and the Law
- PSY 345 - Evolutionary Psychology
- PSY 346 - Stereotyping, Prejudice, & Discrimination
- PSY 351 - Abnormal Psychology and Interventions
- PSY 359 - Introduction to School and Mental Health Counseling
- PSY 375 - Health Psychology
- PSY 376 - Psychology of Romantic Relationships
- PSY 377 - Positive Psychology
- PSY 378 - Personality Psychology
- Three courses from:
  - PSY 274 - Psychology of Child Rearing
  - PSY 330 - Child Development
  - PSY 332 - Adolescent Development
  - PSY 333 - Infant Development
  - PSY 354 - Abnormal Child Psychology and Interventions

## Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

# PSYCHOLOGY

## Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Bachelor of Science

### Behavioral Neuroscience, BS

Department of Psychology, College of Humanities and Social Sciences

**108-119 credits**

#### Introduction

Behavioral neuroscience explores the role of the nervous system in normal and abnormal behavior, thought, and emotion. This major emphasizes an understanding of nervous system structure and function from the molecular/cellular level to the systems level. For example, behavioral neuroscientists study the neurobiological basis of normal learning and memory, psychiatric illnesses such as depression, schizophrenia, and drug abuse and neurological illnesses such as Parkinson's, Huntington's, and Alzheimer's Disease.

#### Why Consider a Behavioral Neuroscience Major?

This interdisciplinary field provides students with the specialized preparation and technological sophistication critical for success in a variety of graduate-training programs, including neuroscience, psychology, pharmacology, mental health, and neurobiology; and in health care, including medicine and dentistry. For those students who do not anticipate pursuing post-graduate education, the degree program provides an excellent platform for entry-level positions in such areas as biomedical research and the pharmaceutical industry.

### Contact Information

#### Program Director

Janet Finlay  
Academic Instructional Center 572  
360-650-6717  
Janet.Finlay@wwu.edu

#### Behavioral Neuroscience Program Coordinator

Academic Instructional Center 574  
360-650-2148  
bns@wwu.edu

#### Faculty Advisors

Janet Finlay, Jeff Carroll, Jeffrey Grimm, Kelly Jantzen, McNeel Jantzen, Mike Mana, Jacqueline Rose.

### Sample Careers

Neuroscientist | Biomedical Researcher | Psychiatrist | Medical Doctor | Dentist | Pharmacist | Veterinarian | Physician Assistant | Pharmaceutical Sales

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students interested in the BNS major declare a BNS pre-major while they are completing the required prerequisite courses for application to the major. Students meet with the BNS Program Coordinator in AI 572 to declare a BNS pre-major. Admission to the BNS pre-major does not guarantee admission to the BNS major.

Students are eligible to apply to the BNS major once they have completed the following requirements:

- Complete at least 75 undergraduate credits.
- Complete the following courses with an average grade point of 2.9 or higher: CHEM 121, CHEM 122, CHEM 123; BIOL 204, BIOL 205, BIOL 206; PSY 101, PSY 220.
- After completing the above, submit an online application via the BNS Program website at [wp.wwu.edu/bnsprogram](http://wp.wwu.edu/bnsprogram). The online application includes a series of essay questions. For assistance with your application, see the BNS Program Coordinator in AI 572. This is a competitive application process. Admission to the BS-BNS major is space-limited.

**Application deadlines:** Students can declare a BNS pre-major at any time. The application deadline for consideration of BNS major status is the end of the 2nd full week of classes fall, winter, spring, and summer quarters.

## Grade Requirements

A grade of C- or better is required for a student's major courses.

## Requirements

### Basic Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- Choose from:
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - Or
- CHEM 251 - Elementary Organic Chemistry (only with advance approval of advisor)
- Choose from:
  - MATH 114 - Precalculus I
  - MATH 115 - Precalculus II
  - Or
  - MATH 118 - Accelerated Precalculus

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- ❑ One course from:
  - PHYS 114 - Principles of Physics I
  - PHYS 161 - Physics with Calculus I
- ❑ PSY 101 - Introduction to Psychology
- ❑ PSY 220 - Behavioral Neuroscience
- ❑ PSY 301 - Overview of Research Methods
- ❑ PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches
- ❑ PSY 319 - Cognitive Neuroscience
- ❑ PSY 320 - Topics in Behavioral Neuroscience
- ❑ PSY 323 - Psychopharmacology
- ❑ PSY 328 - Techniques in Behavioral Neuroscience
- ❑ One course from:
  - BIOL 410 - Animal Behavior
  - PSY 321 - Learning
  - PSY 324 - Comparative Psychology

## Seminar Requirements (3-5 credits)

BIOL 410 - Animal Behavior (can be applied to Basic or Seminar requirement, not both)  
BIOL 476 - Structure and Physiology of Membrane Transport Proteins  
BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment  
PSY 410 - Seminar in Cognitive Neuroscience  
PSY 420 - Seminar in Behavioral Neuroscience  
PSY 421 - Seminar in Learning  
PSY 422 - Seminar in Motivation  
PSY 424 - Seminar in Comparative Psychology

## Electives Under Advisement (10 credits)

BIOL 322 - Genetics Lab  
BIOL 324 - Methods in Molecular Biology  
BIOL 325 - Ecology  
BIOL 410 - Animal Behavior  
BIOL 432 - Evolutionary Biology  
BIOL 467 - Comparative Vertebrate Physiology  
BIOL 468 - Comparative Vertebrate Physiology Laboratory  
BIOL 476 - Structure and Physiology of Membrane Transport Proteins  
BIOL 482 - Developmental Biology of Animals  
BIOL 484 - Cell Biology Laboratory  
BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment  
CHEM 353 - Organic Chemistry  
CHEM 375 - Elements of Biochemistry  
CHEM 471 - Biochemistry I  
CHEM 472 - Biochemistry II  
MATH 124 - Calculus and Analytic Geometry I  
PHYS 115 - Principles of Physics II  
PHYS 116 - Principles of Physics III  
PHYS 162 - Physics with Calculus II  
PHYS 163 - Physics with Calculus III  
PSY 210 - Cognition  
PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches  
PSY 310 - Sensation and Perception  
PSY 322 - Motivation  
PSY 327 - Cognitive Neuroscience Lab  
PSY 410 - Seminar in Cognitive Neuroscience  
PSY 420 - Seminar in Behavioral Neuroscience  
PSY 421 - Seminar in Learning  
PSY 422 - Seminar in Motivation  
PSY 424 - Seminar in Comparative Psychology  
PSY 428 - Advanced Techniques in Behavioral Neuroscience

One course from:

BIOL 395 - Biology Research Participation

BIOL 494 - Biology Research

BIOL 495 - Research Communication

One course from:

PSY 300 - Directed Independent Study

PSY 400 - Directed Independent Study

### Additional Information

A maximum combined total of 3 credits in PSY 300, 400 or BIOL 395, 494, 495 can be applied to the major.

## Psychology, BS

Department of Psychology, College of Humanities and Social Sciences

### 74 credits

### Introduction

Psychology's attempt to understand the human condition takes many approaches. Some psychologists study brain chemistry and its relation to behavior, while others study the behavior of individuals in groups. Still others are engaged in providing counseling or psychotherapy to people who are mentally ill or who are having difficulty in coping with the demands of life. With a faculty of more than 30 people, the department offers a program of study which provides a solid foundation in the general concepts and methods of Psychology, as well as courses and programs for students in many of the more specialized areas.

The core program in general psychology is designed to ensure that all students majoring psychology will develop a sound basic preparation for advanced study, have a solid grounding in psychological research and the real world applications of research findings in the field. The program is designed to allow students flexibility in selecting courses with the assistance of their advisor. However, the design of the major ensures that each Psychology major has direct experience with research methodology, from the theoretical underpinnings through research design, implementation and data analysis, and finally to a manuscript of the entire research project.

### Why Consider a Psychology Major?

Most of the major issues facing the people of the world today - hunger, overpopulation, the continuing threat of war, prejudice, pollution, drug addiction - are people problems; people have created them, and it will be people who must and will find solutions to them. Psychology, as the scientific study of mind and behavior, will help provide the answers to many of these pressing problems.

Undergraduate Advising: Upon major declaration, students are assigned a faculty advisor who works the student to develop a plan of study that meets the student's academic and career goals.

#### Contact Information

##### Department Chair

Dr. Larry Symons

Academic Instruction Center 440

360-650-4019

Larry.Symons@wwu.edu

##### Undergraduate Program Coordinator

Michael Valente

Academic Instruction Center 434

360-650-3515

Michael.Valente@wwu.edu

#### Sample Careers

Counselor | Employment Agency Counselor | Training and Development Professional | Mental Health Coordinator | Human Resources Personnel | Social Service Administrator | Public Relations | Corrections Officer | Educator | Market Research Analyst | Social Service Worker | Psychologist | Foster Care and Adoptions | Data Analyst

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

# PSYCHOLOGY

## How to Declare (Admission and Declaration Process):

To declare a major in psychology, a student must have the following:

1. Completed at least 75 credits;
2. Successfully completed or be currently enrolled in Psychology 301;
3. Achieved a Western GPA (based on at least 12 credits) of 2.70 or higher. A GPA of 3.0 or higher in Western Psychology courses, including Psychology 301, may substitute for the overall 2.70 GPA.

Beginning of the third week of each quarter, an email is sent to students currently taking PSY 301 with instructions on how to declare the major. Professors teaching PSY 301 also make an announcement in their class. Student should declare the major prior to the Phase I date of registration for the following quarter.

In special cases, it may be possible to declare the major at other times as well (for example, you may not have the required GPA at the normal time for declaring, but you do achieve that GPA at the end of the quarter. You will then be able to declare at that time).

If you have met the requirements for declaring the major (see the section above), visit the Psychology Department office (Academic Instruction Center 434) and fill out the application for the major form.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- PSY 220 - Behavioral Neuroscience
- PSY 230 - Lifespan Developmental Psychology
- PSY 240 - Social Psychology
- PSY 250 - Introduction to Abnormal Psychology
- PSY 301 - Overview of Research Methods
- PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches
- PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches
- One course from:
  - PSY 310 - Sensation and Perception
  - PSY 311 - Human Memory
  - PSY 318 - Language, Brain, and Mind
  - PSY 319 - Cognitive Neuroscience
  - PSY 320 - Topics in Behavioral Neuroscience
  - PSY 321 - Learning
  - PSY 322 - Motivation
  - PSY 323 - Psychopharmacology
  - PSY 324 - Comparative Psychology
- One course from:
  - PSY 330 - Child Development
  - PSY 331 - Adult Development and Aging
  - PSY 332 - Adolescent Development
  - PSY 333 - Infant Development
  - PSY 340 - Environmental Psychology
  - PSY 341 - Psychology and Culture
  - PSY 342 - Social Cognition
  - PSY 343 - Social Processes
  - PSY 344 - Psychology and the Law
  - PSY 345 - Evolutionary Psychology
  - PSY 346 - Stereotyping, Prejudice, & Discrimination
  - PSY 351 - Abnormal Psychology and Interventions
  - PSY 354 - Abnormal Child Psychology and Interventions

- One 300-level course (in addition to the two 300-level courses above) from:
  - PSY 310 - Sensation and Perception
  - PSY 311 - Human Memory
  - PSY 318 - Psychology of Language
  - PSY 319 - Cognitive Neuroscience
  - PSY 320 - Topics in Behavioral Neuroscience
  - PSY 321 - Learning
  - PSY 322 - Motivation
  - PSY 323 - Pyschopharmacology
  - PSY 324 - Comparative Psychology
  - PSY 330 - Child Development
  - PSY 331 - Adult Development and Aging
  - PSY 332 - Adolescent Development
  - PSY 333 - Infant Development
  - PSY 340 - Environmental Psychology
  - PSY 341 - Pyschology and Culture
  - PSY 342 - Social Cognition
  - PSY 343 - Social Processes
  - PSY 344 - Pyschology and the Law
  - PSY 345 - Evolutionary Pyschology
  - PSY 346 - Sterotyping, Prejudice, & Discrimination
  - PSY 351 - Abnormal Pyschology
  - PSY 354 - Abnormal Child Pyschology and Interventions
  - PSY 375 - Health Psychology
  - PSY 376 - Psychology of Romantic Relationships
  - PSY 377 - Positive Psychology
  - PSY 378 - Personality Psychology
- One course each from two of the following five content seminars:
 

(Students must complete the Research Methods/Statistics series [PSY 301-303] BEFORE taking the 400 level Content Seminars (Cognitive, Behavioral, Neuroscience, Developmental, Social, Abnormal). PSY 481 or 482 may be taken concurrently with PSY 303. Students complete research projects in every content seminar).

  - Cognitive:**
    - PSY 410 - Seminar in Cognitive Neuroscience
    - PSY 411 - Seminar in Cognition
  - Behavioral Neuroscience:**
    - PSY 420 - Seminar in Behavioral Neuroscience
    - PSY 421 - Seminar in Learning
    - PSY 422 - Seminar in Motivation
    - PSY 424 - Seminar in Comparative Psychology
  - Development:**
    - PSY 430 - Seminar in Developmental Psychology
    - PSY 431 - Seminar in Adult Development and Aging
  - Social:**
    - PSY 440 - Seminar in Environmental Psychology
    - PSY 441 - Seminar in Cross-Cultural Psychology
    - PSY 442 - Seminar in Social Psychology
  - Abnormal:**
    - PSY 451 - Seminar in Abnormal Psychology
- One course from:
  - PSY 481 - Seminar in History and Systems of Psychology
  - PSY 482 - Seminar in Psychological Theory

## Master of Education

### School Counselor, Non-Thesis, MEd

Department of Psychology, College of Humanities and Social Sciences

# PSYCHOLOGY

## Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's Disease.

**Ciao, Anna C.**, PhD, risk factors for developing eating and weight concerns, eating disorder and obesity prevention and early intervention, barriers to seeking psychological treatments, dissemination of evidence-based interventions.

**Czopp, Alexander M.**, PhD, negative implications for intergroup relations of "positive" stereotypes of groups, prejudice reduction through interpersonal confrontation.

**Devenport, Jennifer**, PhD, legal psychology, jury decision-making, factors influencing erroneous eyewitness identifications.

**Dinnel, Dale L.**, PhD, school and home environment and achievement motivation, personality correlates of happiness and well-being.

**Du Rocher Schudlich, Tina**, PhD, developmental psychopathology, marital conflict and children, parent-child emotion regulation.

**Finlay, Janet M.**, PhD, behavioral neuroscience, biological basis of psychiatric illness.

**Forgays, Deborah K.**, PhD, adolescent development, women's health issues, women and anger across development.

**Goodvin, Rebecca**, PhD, early socioemotional development, self-concept, parent-child attachment and communication.

**Graham, James**, PhD, adaptive processes in romantic relationships, romantic love, measurement, multivariate statistics.

**Grimm, Jeffrey W.**, PhD, animal models of drug taking and drug seeking, neurobiology of drug taking and drug seeking.

**Gruman, Diana**, PhD, school counseling, child and adolescent development, educational psychology.

**Haskell, Todd**, PhD, language, visual and auditory perception, cognition.

**Hyman, Ira**, PhD, memory, cognitive psychology, social cognition.

**Jantzen, Kelly J.**, PhD, behavioral and cognitive neuroscience, human environment interactions.

**Jantzen, McNeel Gordon**, PhD, speech perception, speech production, phonological learning, neural reorganization of language.

**King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.

**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

**Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.

**Manago, Adriana**, PhD, adolescent and emerging adult development in the context of culture change and the Digital Age, Latino youth in the U.S. and indigenous Maya youth in Mexico, peer relations, gender and sexual development

**McLean, Kate**, PhD, adolescent identity development.

**Purgason, Lucy**, PhD, school counseling, social media influences on school adjustment, ethnic identity development and refugee youth.

**Riordan, Catherine A.**, PhD, social and organizational psychology, with particular focus on leadership and change in organizations.

**Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.

**Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.

**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception.

**Trimble, Joseph E.**, PhD, social, cross-cultural.

Program Advisor: Dr. Diana Gruman, Academic Instructional Center 596

## Program Description

The MEd school counseling program prepares professional counselors for employment in educational settings and is designed for those students intending to apply for the state educational staff associate certificate endorsed in school counseling at the elementary and secondary levels. Certification as a public school teacher



is not required for admission to the program. The school counseling program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and the National Council for Accreditation of Teacher Education (NCATE).

The program contains a thesis option for those students interested in pursuing a research project related to the degree program.

## Goals

The program prepares knowledgeable, skilled, culturally sensitive, and ethical professional counselors who meet the relevant licensing or credentialing standards for practice in mental health and public and private educational settings in the State of Washington.

## Prerequisites

The following specific courses are required for those who do not have a degree in psychology: introductory psychology, statistics, abnormal psychology, and child/adolescent development. Deficiencies in prerequisites may be completed after program admission, but must be completed prior to first enrollment.

## Application Information

**Deadlines:** Program faculty will begin reviewing application materials after February 1 and will continue to review materials until the enrollment limit is reached or June 1, whichever comes first. Because maximum student enrollment in the program is limited, all applicants are strongly encouraged to submit application materials by February 1. All prerequisites must be completed prior to fall quarter enrollment. Documentation of personal suitability of applicants for counseling is required through a statement of purpose with specific questions, letters of reference and interviews where possible.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must have their application materials submitted by February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test required; subject in psychology recommended; test scores are not required if an applicant holds an advanced degree

## Program Requirements (83 credit minimum)

All students in the school counseling program must complete the following courses:

- PSY 502 - Adult Psychopathology
- PSY 504 - Lifespan Psychological Development
- PSY 532 - Cross-Cultural Counseling
- PSY 542 - Developmental Psychopathology
- PSY 550 - Research Methods in Counseling
- PSY 551 - Developmental School Counseling
- PSY 553 - Theories of Counseling and Psychotherapy
- PSY 554 - Standardized Tests
- PSY 555 - Occupations and Career Development
- PSY 557 - Testing and Appraisal in Counseling
- PSY 558 - Family and Couple Counseling
- PSY 561 - Seminar: Professional, Legal and Cultural Issues
- PSY 564 - Individual Counseling Techniques
- PSY 565 - Group Processes in Counseling
- PSY 568 - Crisis Interventions
- PSY 570 - Practicum (4-15 credits)
- PSY 670 - Internship (18-30 credits)
- Written Examinations: Each student is required to satisfactorily write an area comprehensive exam; for information contact the program advisor.

# PSYCHOLOGY

## Additional Information

### Retention

The department has requirements affecting retention in the School Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades removes a student from the master's program. Any course in which an unacceptable grade is earned may be re-taken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the school counseling program is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## School Counselor, Thesis, MEd

Department of Psychology, College of Humanities and Social Sciences

### Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's Disease.

**Ciao, Anna C.**, PhD, risk factors for developing eating and weight concerns, eating disorder and obesity prevention and early intervention, barriers to seeking psychological treatments, dissemination of evidence-based interventions.

**Czopp, Alexander M.**, PhD, negative implications for intergroup relations of "positive" stereotypes of groups, prejudice reduction through interpersonal confrontation.

**Devenport, Jennifer**, PhD, legal psychology, jury decision-making, factors influencing erroneous eyewitness identifications.

**Dinnel, Dale L.**, PhD, school and home environment and achievement motivation, personality correlates of happiness and well-being.

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**Finlay, Janet M.**, PhD, behavioral neuroscience, biological basis of psychiatric illness.

**Forgays, Deborah K.**, PhD, adolescent development, women's health issues, women and anger across development.

**Goodvin, Rebecca**, PhD, early socioemotional development, self-concept, parent-child attachment and communication.

**Graham, James**, PhD, adaptive processes in romantic relationships, romantic love, measurement, multivariate statistics.

**Grimm, Jeffrey W.**, PhD, animal models of drug taking and drug seeking, neurobiology of drug taking and drug seeking.

**Gruman, Diana**, PhD, school counseling, child and adolescent development, educational psychology.

**Haskell, Todd**, PhD, language, visual and auditory perception, cognition.

**Hyman, Ira**, PhD, memory, cognitive psychology, social cognition.

**Jantzen, Kelly J.**, PhD, behavioral and cognitive neuroscience, human environment interactions.

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**King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.

**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

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**Manago, Adriana, PhD**, adolescent and emerging adult development in the context of culture change and the Digital Age, Latino youth in the U.S. and indigenous Maya youth in Mexico, peer relations, gender and

sexual development.

**McLean, Kate**, PhD, adolescent identity development.

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**Riordan, Catherine A.**, PhD, social and organizational psychology, with particular focus on leadership and change in organizations.

**Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.

**Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.

**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception.

**Trimble, Joseph E.**, PhD, social, cross-cultural.

Program Advisor: Dr. Diana Gruman, Academic Instructional Center 596

## Program Description

The MEd school counseling program prepares professional counselors for employment in educational settings and is designed for those students intending to apply for the state educational staff associate certificate endorsed in school counseling at the elementary and secondary levels. Certification as a public school teacher is not required for admission to the program. The school counseling program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and the National Council for Accreditation of Teacher Education (NCATE).

The program contains a thesis option for those students interested in pursuing a research project related to the degree program.

## Goals

The program prepares knowledgeable, skilled, culturally sensitive, and ethical professional counselors who meet the relevant licensing or credentialing standards for practice in mental health and public and private educational settings in the State of Washington.

## Prerequisites

The following specific courses are required for those who do not have a degree in psychology: introductory psychology, statistics, abnormal psychology, and child/adolescent development. Deficiencies in prerequisites may be completed after program admission, but must be completed prior to first enrollment.

## Application Information

**Deadlines:** Program faculty will begin reviewing application materials after February 1 and will continue to review materials until the enrollment limit is reached or June 1, whichever comes first. Because maximum student enrollment in the program is limited, all applicants are strongly encouraged to submit application materials by February 1. All prerequisites must be completed prior to fall quarter enrollment. Documentation of personal suitability of applicants for counseling is required through a statement of purpose with specific questions, letters of reference and interviews where possible.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must have their application materials submitted by February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test required; subject in psychology recommended; test scores are not required if an applicant holds an advanced degree

## Program Requirements (89 credit minimum)

All students in the school counseling program must complete the following courses:

- PSY 502 - Adult Psychopathology
- PSY 504 - Lifespan Psychological Development
- PSY 532 - Cross-Cultural Counseling

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- PSY 542 - Developmental Psychopathology
  - PSY 550 - Research Methods in Counseling
  - PSY 551 - Developmental School Counseling
  - PSY 553 - Theories of Counseling and Psychotherapy
  - PSY 554 - Standardized Tests
  - PSY 555 - Occupations and Career Development
  - PSY 557 - Testing and Appraisal in Counseling
  - PSY 558 - Family and Couple Counseling
  - PSY 561 - Seminar: Professional, Legal and Cultural Issues
  - PSY 564 - Individual Counseling Techniques
  - PSY 565 - Group Processes in Counseling
  - PSY 568 - Crisis Interventions
  - PSY 570 - Practicum [4-15 credits]
  - PSY 670 - Internship [18-30 credits]
- Thesis students must also complete:  
PSY 690 - Thesis (minimum 6 credits)

Written Examinations: Each student is required to satisfactorily write an area comprehensive exam; for information contact the program advisor.

## Additional Information

### Retention

The department has requirements affecting retention in the School Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades removes a student from the master's program. Any course in which an unacceptable grade is earned may be re-taken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the school counseling program is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## Master of Science

### Mental Health Counseling, Non-Thesis, MS

Department of Psychology, College of Humanities and Social Sciences

#### Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's Disease.

**Ciao, Anna C.**, PhD, risk factors for developing eating and weight concerns, eating disorder and obesity prevention and early intervention, barriers to seeking psychological treatments, dissemination of evidence-based interventions.

**Czopp, Alexander M.**, PhD, negative implications for intergroup relations of "positive" stereotypes of groups, prejudice reduction through interpersonal confrontation.

**Devenport, Jennifer**, PhD, legal psychology, jury decision-making, factors influencing erroneous eyewitness identifications.

**Dinnel, Dale L.**, PhD, school and home environment and achievement motivation, personality correlates of happiness and well-being.

- Du Rocher Schudlich, Tina**, PhD, developmental psychopathology, marital conflict and children, parent-child emotion regulation.
- Finlay, Janet M.**, PhD, behavioral neuroscience, biological basis of psychiatric illness.
- Forgays, Deborah K.**, PhD, adolescent development, women's health issues, women and anger across development.
- Goodvin, Rebecca**, PhD, early socioemotional development, self-concept, parent-child attachment and communication.
- Graham, James**, PhD, adaptive processes in romantic relationships, romantic love, measurement, multivariate statistics.
- Grimm, Jeffrey W.**, PhD, animal models of drug taking and drug seeking, neurobiology of drug taking and drug seeking.
- Gruman, Diana**, PhD, school counseling, child and adolescent development, educational psychology.
- Haskell, Todd**, PhD, language, visual and auditory perception, cognition.
- Hyman, Ira**, PhD, memory, cognitive psychology, social cognition.
- Jantzen, Kelly J.**, PhD, behavioral and cognitive neuroscience, human environment interactions.
- Jantzen, McNeel Gordon**, PhD, speech perception, speech production, phonological learning, neural reorganization of language.
- King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.
- Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.
- Lemm, Kristi**, PhD, implicit attitudes.
- Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.
- Manago, Adriana**, PhD, adolescent and emerging adult development in the context of culture change and the Digital Age, Latino youth in the U.S. and indigenous Maya youth in Mexico, peer relations, gender and sexual development.
- McLean, Kate**, PhD, adolescent identity development.
- Purgason, Lucy**, PhD, school counseling, social media influences on school adjustment, ethnic identity development and refugee youth.
- Riordan, Catherine A.**, PhD, social and organizational psychology, with particular focus on leadership and change in organizations.
- Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.
- Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.
- Sattler, David**, PhD, natural disasters, social dilemmas, small group research.
- Symons, Lawrence**, PhD, perception
- Trimble, Joseph E.**, PhD, social, cross-cultural

Program Advisor: Dr. Christina Byrne, Academic Instructional Center 474

## Program Description

The MS Mental Health Counseling program prepares students for careers in the field of mental health and is accredited by CACREP. The program provides a general foundation in theoretical and applied perspectives which are used by mental health professionals. Special emphasis is placed on skill development, supervised practica with adults, children, and families, and on-site internships in various community and mental health clinics. Exposure to crosscultural counseling strategies is an important component of the curriculum.

## Goals

The program prepares knowledgeable, skilled, culturally sensitive, and ethical professional counselors who meet the relevant licensing or credentialing standards for practice in mental health and public and private educational settings in the State of Washington.

## Prerequisites

Courses in introductory psychology and statistics and research design are required. The following courses are strongly recommended: one course in abnormal or personality; one course in social or developmental; two courses from learning, sensation, perception, motivation and physiological/behavioral neuroscience; a course in the history and systems of psychology or in philosophy of science.

# PSYCHOLOGY

## Application Information

**Deadlines:** Program faculty will begin reviewing application materials after February 1 and will continue to review materials until the enrollment limit is reached or June 1, whichever comes first. Because maximum student enrollment in the program is limited, all applicants are strongly encouraged to submit application materials by February 1. Documentation of personal suitability of applications for counseling is required through a statement of purpose with specific questions and letters of reference. Top-ranked applicants will be invited to interview.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Graduate Record Examination, General required; subject in psychology recommended; no test scores are required if an applicant holds an advanced degree.

## Program Requirements (91 credits)

- PSY 502 - Adult Psychopathology
- PSY 504 - Lifespan Psychological Development
- PSY 532 - Cross-Cultural Counseling
- PSY 542 - Developmental Psychopathology
- PSY 550 - Research Methods in Counseling
- Or
- PSY 512 - Correlation Methods and Data Analysis
- PSY 553 - Theories of Counseling and Psychotherapy
- PSY 554 - Standardized Tests
- PSY 555 - Occupations and Career Development
- PSY 557 - Testing and Appraisal in Counseling
- PSY 558 - Family and Couple Counseling
- PSY 561 - Seminar: Professional, Legal and Cultural Issues
- PSY 564 - Individual Counseling Techniques
- PSY 565 - Group Processes in Counseling
- PSY 567 - Professional Practice of Counseling
- PSY 568 - Crisis Interventions
- PSY 570 - Practicum (4-15 credits)
- PSY 670 - Internship (24-30 credits)

Written Examination: Each student choosing the non-thesis option is required to satisfactorily write an area comprehensive exam. For information, contact the program advisor.

## Retention Requirements

The department has requirements affecting retention in the Mental Health Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades removes a student from the master's program. Any course in which an unacceptable grade is earned may be retaken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the mental health counseling curriculum is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## Mental Health Counseling, Thesis, MS

Department of Psychology, College of Humanities and Social Sciences

## Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's Disease.

**Ciao, Anna C.**, PhD, risk factors for developing eating and weight concerns, eating disorder and obesity prevention and early intervention, barriers to seeking psychological treatments, dissemination of evidence-based interventions.

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**Devenport, Jennifer**, PhD, legal psychology, jury decision-making, factors influencing erroneous eyewitness identifications.

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**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

**Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.

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**McLean, Kate**, PhD, adolescent identity development.

**Purgason, Lucy**, PhD, school counseling, social media influences on school adjustment, ethnic identity development and refugee youth.

**Riordan, Catherine A.**, PhD, social and organizational psychology, with particular focus on leadership and change in organizations.

**Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.

**Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.

**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception

**Trimble, Joseph, E.**, PhD, social cross-cultural

Program Advisor: Dr. Christina Byrne, Academic Instructional Center 474

## Program Description

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practica with adults, children, and families, and on-site internships in various community and mental health clinics. Exposure to crosscultural counseling strategies is an important component of the curriculum.

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Courses in introductory psychology and statistics and research design are required. The following courses are strongly recommended: one course in abnormal or personality; one course in social or developmental; two courses from learning, sensation, perception, motivation and physiological/behavioral neuroscience; a course in the history and systems of psychology or in philosophy of science.

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  - PSY 567 - Professional Practice of Counseling
  - PSY 568 - Crisis Interventions
  - PSY 570 - Practicum (4-15 credits)
  - PSY 670 - Internship (24-30 credits)
- Thesis students must complete 690 (minimum 6 credits)

## Retention Requirements

The department has requirements affecting retention in the Mental Health Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades



removes a student from the master's program. Any course in which an unacceptable grade is earned may be retaken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the mental health counseling curriculum is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## Psychology — Experimental, Thesis, MS

Department of Psychology, College of Humanities and Social Sciences

### Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's Disease.

**Ciao, Anna C.**, PhD, risk factors for developing eating and weight concerns, eating disorder and obesity prevention and early intervention, barriers to seeking psychological treatments, dissemination of evidence-based interventions.

**Czopp, Alexander M.**, PhD, stereotypes, prejudice.

**Devenport, Jennifer**, PhD, legal psychology, jury decision-making, factors influencing erroneous eyewitness identifications.

**Dinnel, Dale L.**, PhD, school and home environment and achievement motivation, personality correlates of happiness and well-being.

**Du Rocher Schudlich, Tina**, PhD, developmental psychopathology, marital conflict and children, parent-child emotion regulation.

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**Grimm, Jeffrey W.**, PhD, animal models of drug taking and drug seeking, neurobiology of drug taking and drug seeking.

**Gruman, Diana**, PhD, school counseling, child and adolescent development, educational psychology.

**Haskell, Todd**, PhD, language, visual and auditory perception, cognition.

**Hyman, Ira**, PhD, memory, cognitive psychology, social cognition.

**Jantzen, Kelly J.**, PhD, behavioral and cognitive neuroscience, human environment interactions.

**Jantzen, McNeel Gordon**, PhD, speech perception, speech production, phonological learning, neural reorganization of language.

**King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.

**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

**Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.

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**McLean, Kate**, PhD, adolescent identity development.

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**Riordan, Catherine A.**, PhD, social and organizational psychology, with particular focus on leadership and change in organizations.

**Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.

**Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.

# PSYCHOLOGY

**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception.

**Trimble, Joseph E.**, PhD, social, cross-cultural.

Program Advisor: Dr. Alex Czopp, Academic Instructional Center 180.

## Program Description

The Experimental Psychology program provides an excellent preparation and foundation for students wishing to enter a psychology Ph.D. program. Our graduate program is based on a mentorship model in which each incoming student is paired with a faculty member with similar scholarly interests who will advise and mentor the student on his/her academic progress and scholarly activities. Graduates will have a solid background in research design, quantitative methods, and expertise in a specific research area.

## Goals

The experimental psychology graduate curriculum provides in-depth research experience within specific domains of psychology; cognitive, social, developmental, and neuroscience. This goal is accomplished through a combination of coursework and research experience.

## Prerequisites

Applicants for the experimental psychology M.S. program must have completed classes in introductory psychology, statistics, research methods, and a minimum of one course in three of the following concentration areas: cognitive, social, developmental, and physiological/behavioral neuroscience. In addition, the following criteria are not required but are preferred: depth of coursework (e.g., multiple courses within a domain, upper-level courses) in at least one of the above areas, and research experience.

## Application Information

**Application Deadlines:** Faculty will begin reviewing application materials on February 1 and will continue to review materials until the enrollment limit is reached or March 15, whichever comes first. Because student enrollment in the program is limited, all applicants are strongly encouraged to submit application materials by February 1.

**Teaching Assistant Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Applicants should submit test scores for the General Graduate Record Examination; no Graduate Record Examination scores are required if an applicant holds an advanced degree.

## Program Requirements: (46 credit minimum)

- PSY 501 - Behavioral Neuroscience
- PSY 503 - Cognition
- PSY 504 - Lifespan Psychological Development
- PSY 505 - Social Psychology
- PSY 512 - Correlation Methods and Data Analysis
- PSY 513 - Experimental Methods and Data Analysis
- PSY 584 - Research Design
- PSY 585 - Scholarship & Communication 1: Presenting Research
- PSY 586 - Scholarship & Communication 2: Writing Research
- PSY 690 - Thesis
- 5 credits of electives from any of the following combination:
  - PSY 517 - Advanced Multivariate Modeling
  - PSY 582 - Practicum in Research in PsychologyCourses under advisement
- A minimum of one research presentation (e.g. at a professional conference/Psychfest) or a public colloquium as part of the thesis defense is required.

An optional concentration offered to all experimental psychology graduate students is Measurement, Evaluation and Statistical Analysis (MESA). In addition to the above requirements, students take the following: PSY 517 and PSY 554.

## Retention Requirements

The department has requirements affecting retention in the MS Experimental Psychology Program which are in addition to the Graduate School scholarship standards. Students in the Experimental Psychology program must be making satisfactory progress in their research to remain in the program. Satisfactory progress in research is defined as being actively engaged in research activities that are moving the student closer to completing his or her thesis and is determined by the student's advisor and the Experimental Psychology program advisor (or the Experimental Psychology program advisor and the general graduate program advisor, if the student does not have an advisor). One quarter of unsatisfactory progress will result in the student being notified as to what he or she needs to do to bring his or her research progress up to satisfactory standards. Two quarters of unsatisfactory progress in research are grounds for dismissal from the Experimental Psychology program. Students may appeal any decision through the formal appeal process outlined in the WWU Catalog (Appendix F).

## Minor

### Psychology Minor

Department of Psychology, College of Humanities and Social Sciences

#### 24 credits

#### Contact Information

##### Department Chair

Dr. Larry Symons  
Academic Instruction Center 440  
360-650-4019  
Larry.Symons@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

The Minor in Psychology can be declared at any time. Students must go to the Psychology Department Office in the Academic Instruction Center (AIC) 434 to obtain the forms for declaration.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- PSY 101 - Introduction to Psychology
- One course from:
  - PSY 210 - Cognition
  - PSY 220 - Behavioral Neuroscience
- One course from:
  - PSY 230 - Lifespan Developmental Psychology
  - PSY 240 - Social Psychology
  - PSY 250 - Introduction to Abnormal Psychology
- Electives under advisement

## **Sport Psychology Minor (see Health and Human Development Department)**

Sport Psychology Minor (see Health and Human Development department)

## **User Experience (UX) Design Minor (see Engineering and Design Department)**

User Experience (UX) Design Minor (see Engineering and Design Department)

## **Psychology Courses**

### **PSY 101 - Introduction to Psychology**

Examination of basic psychological processes utilizing results of research investigations: participation in at least two experiments or equivalent activities is expected.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **PSY 116 - Human Sexuality**

This course examines human sexual behavior from biological, psychological, social, and cultural perspectives. Course content includes issues pertaining to sexual anatomy, the sexual response cycle, sexual orientation, sexuality across the lifespan, the reproductive process, variations in sexual behavior, sexual health, romantic relationship processes, and sexual violence.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **PSY 117 - The Psychology of Identity**

This course examines the development of identity throughout the lifespan with consideration of gender, social class, ethnicity, culture, autobiographical memory, social roles, and self-presentation.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **PSY 118 - The Psychology of Happiness and Well-Being**

In this course, students will address the question of what comprises happiness and a sense of well-being in life. In particular, students will be exposed to the scientific literature on happiness and well-being within the framework of philosophical perspectives on life. Students will compare and contrast the findings on happiness and well-being

in the scientific literature with advice provided in the various popular sources of information (e.g. self-help books, self-help websites, magazines, popular self-help television programs).

**Credits:** 5  
**Grade Mode:** Letter

### **PSY 119 - Psychology of Gender**

Basic concepts, foundations for sex roles; similarities and differences between the sexes; historical customs, personality theories, cultural, subcultural and cross-cultural perspectives

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **PSY 194 - Experience in Behavioral Neuroscience**

A course for College Quest students only. Emphasizes the relationship between brain structure/function and behavior through lecture and lab. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

### **PSY 195 - Foundations of Behavioral Neuroscience**

An introduction to the role of the nervous system in normal and abnormal behavior, thought, and emotion. S/U grading.

**Credits:** 2  
**Grade Mode:** S/U

### **PSY 210 - Cognition**

Provides an overview of the theories, methods and practical applications of cognitive psychology. The higher mental processes, particularly the ways in which knowledge is acquired, stored and used, will be emphasized. The course also examines how theories and findings from cognitive psychology can help us to understand mental activities in everyday life.

**Prerequisites & Notes:** PSY 101

**Credits:** 5

**Grade Mode:** Letter

### **PSY 220 - Behavioral Neuroscience**

An overview of the biological bases of behavior. Basic concepts in neuroanatomy, neurophysiology, and neurochemistry will be used to understand the neural bases of normal and abnormal behavior.

**Prerequisites & Notes:** PSY 101

**Credits:** 5

**Grade Mode:** Letter

### **PSY 230 - Lifespan Developmental Psychology**

This class covers biological, cognitive, and psychosocial changes that occur across different periods of life, as well as contexts of development (e.g., culture, school, families, peers). Topics include basic developmental tasks from infancy to old age and theories of development.

**Prerequisites & Notes:** PSY 101.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 240 - Social Psychology**

Socialization (moral development, racial, ethnic and class differences), attitudes and attitude change, conformity, interpersonal attraction. Theories and methods of social psychology stressing applicability of social psychological research and knowledge to contemporary social problems.

**Prerequisites & Notes:** PSY 101

**Credits:** 5

**Grade Mode:** Letter

### **PSY 250 - Introduction to Abnormal Psychology**

An overview of the research on individuals within social contexts. Topics include description of disorders, stress and coping, social influence on behavior, the relationship between psychological and physical health and development adjustment issues.

**Prerequisites & Notes:** PSY 101

**Credits:** 5

**Grade Mode:** Letter

### **PSY 274 - Psychology of Child Rearing**

Discipline at different developmental stages; parental influences on social and cognitive development; influences on parenting; a systems

approach to understanding families; the changing American family.

**Prerequisites & Notes:** PSY 101.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **PSY 301 - Overview of Research Methods**

Introduction to research psychology. A variety of research methodologies will be explored. Students will also learn basic description of research data and how to write psychology papers.

**Prerequisites & Notes:** 15 credits in psychology with a minimum of 5 credits at Western and declared Psychology pre-major status or 15 credits towards the Behavioral Neuroscience major (including PSY 101, PSY 220, and CHEM 121) with a minimum of 5 credits at Western and declared Behavioral Neuroscience pre-major status.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches**

Introduction to correlational research methods in psychology and associated statistics. Review of correlational research methods, design of correlational studies, and development of research instruments such as questionnaires and behavioral observation forms. Methods of data analysis include graphs, bivariate and multivariate descriptive correlational statistics, sampling distributions of statistical inference regarding correlations, and introduction to the t and F tests. Nonparametric statistics such as chi square also will be discussed.

**Prerequisites & Notes:** PSY 301 with a C- or better and declared Psychology Major or declared Behavioral Neuroscience Major.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches**

## PSYCHOLOGY

Continuation of statistical inferencing introduced in PSY 302 as it applies to the special cases of the general linear model. Two sample t-tests and ANOVA models will be introduced at the conceptual and computational level. Appropriate follow-up tests also will be covered. Computer data analysis will be utilized for problem sets and the individual project.

**Prerequisites & Notes:** PSY 302 with a C- or better and declared Psychology Major and PSY 210, 220, 230, 240, 250, each with C- or better; or PSY 301 with a C- or better and declared Behavioral Neuroscience Major.

**Credits:** 5

**Grade Mode:** Letter

### PSY 310 - Sensation and Perception

The basic principles involved in seeing, hearing, touch, taste and smell will be presented. Ecological constraints on perceptual processes will be discussed in the context of illusions and other perceptual demonstrations as well as underlying physiological mechanisms.

**Prerequisites & Notes:** PSY 210; PSY 220; and PSY 301 or declared Behavioral Neuroscience Major and PSY 301.

**Credits:** 5

**Grade Mode:** Letter

### PSY 311 - Human Memory

Reviews memory theories, empirical findings, and applications. Topics include encoding, storage, and retrieval from short- and long-term memory; implicit and explicit memory; autobiographical memory; eyewitness memory.

**Prerequisites & Notes:** PSY 210, PSY 301

**Credits:** 5

**Grade Mode:** Letter

### PSY 318 - Language, Brain, and Mind

This course will address fundamental issues regarding human language: how the mind represents linguistic information; how language is acquired by children; how language is processed by adults; the relationship between language and thought; and the use of brain imaging methods to examine how language is represented and processed.

**Prerequisites & Notes:** PSY 210 and PSY 220 and PSY 301.

**Credits:** 5

**Grade Mode:** Letter

### PSY 319 - Cognitive Neuroscience

Discussion of the brain systems underlying human cognition, with a focus on how inferences about brain systems are drawn from neuropathological, neuroimaging, and behavioral studies.

**Prerequisites & Notes:** PSY 210, PSY 220, and PSY 301 or declared Behavioral Neuroscience and PSY 301. Available to Sport Psychology students with instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### PSY 320 - Topics in Behavioral Neuroscience

Detailed examination of key areas of physiological psychology, emphasizing the anatomical, physiological and neurochemical bases of behavior.

**Prerequisites & Notes:** PSY 220; PSY 301 or comparable research course; instructor permission

**Credits:** 5

**Grade Mode:** Letter

### PSY 321 - Learning

A survey of conditioning and learning.

**Prerequisites & Notes:** PSY 220 and PSY 301

**Credits:** 5

**Grade Mode:** Letter

### PSY 322 - Motivation

Theoretical and empirical study of human and subhuman motivational process. Topics covered range from basic physiological drives to achievement motivation and conformity. Emphasis on both biological and social sources of motivation.

**Prerequisites & Notes:** PSY 220 and PSY 301.

Available to Sport Psychology students with instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### PSY 323 - Psychopharmacology

Introduction to behavioral pharmacology and the effects of therapeutic and recreational drugs on the function of the nervous system and behavior.

**Prerequisites & Notes:** PSY 220; PSY 301 or comparable research course and instructor permission. Available to Sport Psychology students with instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### PSY 324 - Comparative Psychology

A phylogenetic comparison of animal behavior, focusing on learning, motivation and sensory

processes in selected species of animals.

**Prerequisites & Notes:** PSY 210 or PSY 220; and PSY 301

**Credits:** 5

**Grade Mode:** Letter

### **PSY 327 - Cognitive Neuroscience Lab**

Introduction to laboratory methods and techniques used in cognitive neuroscience. Concentration will be on large scale brain imaging of cognition using EEG. Students will collect and analyze data from participants undergoing a broad range of cognitive paradigms.

**Prerequisites & Notes:** PSY 220 and one of PSY 310, PSY 311, PSY 319, or PSY 320.

**Credits:** 4

**Grade Mode:** Letter

### **PSY 328 - Techniques in Behavioral Neuroscience**

Introduction to laboratory methods and techniques used in behavioral neuroscience. Two hours lecture and four hours lab each week; students will be introduced to basic techniques in histology, neurophysiology, neurochemistry, molecular biology, or behavioral analyses. May require live animal research. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** PSY 320 or PSY 323 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **PSY 330 - Child Development**

In-depth coverage of social and cognitive development in children and adolescents. Emphasis on the implications and practical applications of research findings in these areas.

**Prerequisites & Notes:** PSY 230 and PSY 301

**Credits:** 5

**Grade Mode:** Letter

### **PSY 331 - Adult Development and Aging**

Examines developmental processes that occur in later life, with a focus on theory, research and practical issues. Topics include a) theoretical and methodological issues, b) biological changes and health issues, c) changes in memory and intelligence, d) personality across adulthood and e) death and dying.

**Prerequisites & Notes:** PSY 230, PSY 301

**Credits:** 5

**Grade Mode:** Letter

### **PSY 332 - Adolescent Development**

Examines adolescent cognitive, social, physiological and intrapsychic development from a variety of theoretical perspectives. Emphasis on current research findings in this area. Students cannot get credit for both PSY 332 and 373.

**Prerequisites & Notes:** PSY 230 and PSY 301.

Available to Sport Psychology students with permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 333 - Infant Development**

Examines social, emotional, cognitive, and physical development of infants and toddlers from diverse theoretical perspectives and methodological approaches. Emphasis on current research findings, application of research findings, and considering infant development in socio-cultural context.

**Prerequisites & Notes:** PSY 230 and PSY 301.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 340 - Environmental Psychology**

Theoretical, methodological and empirical problems and issues relating to behavior in constructed and natural environments.

**Prerequisites & Notes:** PSY 301 plus one from PSY 210-250

**Credits:** 5

**Grade Mode:** Letter

### **PSY 341 - Psychology and Culture**

Cultural and ecological factors and their effect on perception, thinking, language, intelligence, sexuality and other psychological variables. An examination of the 'universality' of traditional Euro-American psychological theories.

**Prerequisites & Notes:** PSY 240 and PSY 301.

Available to Sport Psychology students with instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **PSY 342 - Social Cognition**

Survey of theory and research investigating the cognitive processes that underlie social judgment and behavior.

**Prerequisites & Notes:** PSY 210, PSY 240, PSY 301

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**Credits:** 5  
**Grade Mode:** Letter

## **PSY 343 - Social Processes**

Examination of selected topics related to formation and functioning of groups, as well as intergroup relations.

**Prerequisites & Notes:** PSY 240, PSY 301  
**Credits:** 5  
**Grade Mode:** Letter

## **PSY 344 - Psychology and the Law**

An examination of current issues in psychology and the law with an emphasis on the application of social psychological theories and research to the understanding of human behavior in a legal context.

**Prerequisites & Notes:** PSY 240, PSY 301  
**Credits:** 5  
**Grade Mode:** Letter

## **PSY 345 - Evolutionary Psychology**

The application of evolutionary theory to understanding the characteristics of human functioning including emotion, thinking, and action.

**Prerequisites & Notes:** One course from PSY 210 to PSY 240; C- or better in PSY 301.  
**Credits:** 5  
**Grade Mode:** Letter

## **PSY 346 - Stereotyping, Prejudice, & Discrimination**

This course will examine issues of and related to stereotyping, prejudice, and discrimination from a social psychological perspective with an emphasis on racism and sexism.

**Prerequisites & Notes:** PSY 240, PSY 301  
**Credits:** 5  
**Grade Mode:** Letter

## **PSY 351 - Abnormal Psychology and Interventions**

Human behavior patterns culturally labeled as abnormalities, or as mental illness; their etiology, incidence, treatment and social attitudes toward such patterns. Historical review of the concepts used to explain such behavior and the research relating to the treatment of mental disorders.

**Prerequisites & Notes:** PSY 250, PSY 301  
**Credits:** 5  
**Grade Mode:** Letter

## **PSY 354 - Abnormal Child Psychology and Interventions**

Child behavior patterns culturally labeled as abnormalities, or as mental illness; their etiology, incidence, treatment and social attitudes toward such patterns. Historical review of the concepts used to explain such behavior and the research relating to the treatment of child mental disorders.

**Prerequisites & Notes:** PSY 230, PSY 250 and PSY 301  
**Credits:** 5  
**Grade Mode:** Letter

## **PSY 359 - Introduction to School and Mental Health Counseling**

Overview of professional counseling in schools, colleges and communities. Includes counselor roles, ethics, counseling theories and techniques, training and licensing, counseling minorities, outreach, use of paraprofessionals and research.

**Prerequisites & Notes:** PSY 250, PSY 301; major  
**Credits:** 4  
**Grade Mode:** Letter

## **PSY 370 - Psychology and the Arts**

Concepts from a wide variety of areas in psychology are used to analyze issues in art. Specific works of art - which may include literature, music and visual arts - are considered through class discussion and written essay.

**Prerequisites & Notes:** PSY 101  
**Credits:** 3  
**Grade Mode:** Letter

## **PSY 375 - Health Psychology**

The course examines health psychology with a focus on theory, research, and practical issues. Topics include (a) health behavior and prevention, (b) stress and coping, (c) the treatment setting, and (d) management of chronic and terminal illness.

**Prerequisites & Notes:** PSY 101 and PSY 301. Available to Sport Psychology students with instructor permission.  
**Credits:** 5  
**Grade Mode:** Letter

## **PSY 376 - Psychology of Romantic Relationships**

An overview of the psychology of romantic relationships. Topics bridge social and abnormal psychology and include attraction, relationship formation, maintenance, and dissolution, and



theoretical approaches to the clinical treatment of couples' issues.

**Prerequisites & Notes:** PSY 240, PSY 250 and PSY 301.

**Credits:** 5

**Grade Mode:** Letter

**PSY 377 - Positive Psychology**

This course is a survey of the science of positive psychology which explores the study of human strengths and virtues. The focus of the course is on the unique characteristics of the human experience that contribute to the physical/psychological health and well-being.

**Prerequisites & Notes:** PSY 301. Available to Sport Psychology students with instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**PSY 378 - Personality Psychology**

This course examines the fundamental issues and questions addressed by the field of personality psychology, considering evidence from several major theoretical approaches to personality (e.g., trait, social-cognitive, motivational, developmental, narrative), and situating personality within biological, social, and cultural contexts.

**Prerequisites & Notes:** PSY 230; PSY 240; PSY 301 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**PSY 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**PSY 410 - Seminar in Cognitive Neuroscience**

In-depth coverage of major issues and methods in the study of cognitive neuroscience. Library and laboratory or field research.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, and one of PSY 310, PSY 318, PSY 319, PSY 320 or PSY 322, all with a C- or better. For Behavioral Neuroscience majors: PSY 303 and one

of PSY 310, PSY 318, PSY 319, PSY 320, or PSY 322, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

**PSY 411 - Seminar in Cognition**

In-depth coverage of selected topics in memory, cognition, and higher order cognitive processing. Library and laboratory or field research.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; and one of PSY 310, PSY 311, PSY 318, PSY 319 or PSY 320, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

**PSY 420 - Seminar in Behavioral Neuroscience**

A detailed examination of brain-behavior relations and the neural bases of behavior, based upon review and discussion of current literature in a variety of areas. Library and/or laboratory work.

**Prerequisites & Notes:** Prereq: For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; one of PSY 310, PSY 319, PSY 320, PSY 321, PSY 322, PSY 323, or PSY 324 all with C- or better. For Behavioral Neuroscience majors: PSY 303 and one of PSY 310, PSY 319, PSY 320, PSY 321, PSY 322, PSY 323, or PSY 324, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

**PSY 421 - Seminar in Learning**

In-depth study of major theoretical and methodological approaches to the study of learning. Laboratory and field research exercises.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 321, all with a C- or better. For Behavioral Neuroscience majors: PSY 303, PSY 321, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

**PSY 422 - Seminar in Motivation**

In-depth coverage of determinants of behavior in humans and other animals. Students will examine primary research and will conduct research. Activities will also include class discussion, presentations, and a major integration paper.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, and PSY 322, all with a C- or better. For

## PSYCHOLOGY

Behavioral Neuroscience majors: PSY 303 and PSY 322, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 424 - Seminar in Comparative Psychology**

In-depth study of animal behavior where different species in different ecological niches is a major variable. Emphasis on the genetic determinants of behavior differences. Students will examine primary research and will conduct research. Activities will also include class discussion, presentations, and a major integration paper.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 324, all with a C- or better. For Behavioral Neuroscience majors: PSY 303 and PSY 324, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 428 - Advanced Techniques in Behavioral Neuroscience**

Laboratory based study of integrated neural systems underlying behavior, based on advanced techniques in histology, neurophysiology, neurochemistry, molecular biology, or behavioral analyses. Two hours lecture and four hours lab each week; may require live animal research. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** PSY 303 and PSY 328 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **PSY 430 - Seminar in Developmental Psychology**

In-depth study of central themes of human development. Contemporary research questions addressed in professional literature and field investigations.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; PSY 330 or PSY 331 or PSY 332 or PSY 333, all with C- or better.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 431 - Seminar in Adult Development and Aging**

In-depth study of central themes of adult development and aging. Contemporary research questions addressed in professional literature and field investigations.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 331, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 440 - Seminar in Environmental Psychology**

In-depth study of major issues and methods in the study of psychosocial adaptations to and of the physical environment. Library and laboratory or field research.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 340, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 441 - Seminar in Cross-Cultural Psychology**

In-depth study of contemporary issues, perspectives, and methods used in the study of how cultural and ethnic factors affect psychological processes. A basic examination of current topics that are receiving significant attention. Library and/or laboratory and field research.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; and one of PSY 341, PSY 342, PSY 343, PSY 344, PSY 345, or PSY 346, all with C- or better.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 442 - Seminar in Social Psychology**

In-depth study of social psychological theory and research to explain patterns of thought and behavior.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; and one of PSY 341, PSY 342, PSY 343, PSY 344, or PSY 345, PSY 346, all with C- or better.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 451 - Seminar in Abnormal Psychology**

Advanced study in major issues and research methods in abnormal psychology. Focus on research design and protocols with clinical populations.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, and one of PSY 351 or PSY 354, all with a C- or better.

**Credits:** 5

**Grade Mode:** Letter

**PSY 470 - Psychological Issues in Substance Use**

This class provides advanced information about psychological issues in substance use. In addition to surveying the most common substances of abuse and their effects, this course also addresses etiological theories, assessment and diagnosis, treatment, issues pertinent to diverse groups of individuals, and current controversies in the field. There is a substantial off-campus, service learning component to this course that may require evening or weekend availability.

**Prerequisites & Notes:** PSY 250 and PSY 351, or current enrollment in the graduate Mental Health Counseling or School Counselor Programs.

**Credits:** 5

**Grade Mode:** Letter

**PSY 471 - Honors Thesis Seminar**

In-depth investigation of a selected topic in psychology culminating in an honors thesis. Should be taken the quarter before the thesis is begun and while it is in progress. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** instructor permission

**Credits:** 2

**Grade Mode:** S/U

**PSY 478 - Understanding Healing Processes across Cultures**

The course will overview systems of healing as they are utilized globally, identify common and uncommon elements of healing and relate these to psychotherapeutic processes.

**Prerequisites & Notes:** PSY 301 or equivalent; junior status.

**Credits:** 3

**Grade Mode:** Letter

**PSY 481 - Seminar in History and Systems of Psychology**

An historical perspective of the development of psychological systems and theories and their impact on contemporary psychology.

**Prerequisites & Notes:** C- or better in: PSY 210-250, PSY 302 plus completion of 45 credits in psychology.

**Credits:** 4

**Grade Mode:** Letter

**PSY 482 - Seminar in Psychological Theory**

A seminar examining the philosophical assumptions of science in general and psychology

in particular.

**Prerequisites & Notes:** C- or better in: PSY 210-250, PSY 302 plus completion of 45 credits in psychology.

**Credits:** 4

**Grade Mode:** Letter

**PSY 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**PSY 501 - Behavioral Neuroscience**

Examines the basic anatomy, physiology and chemistry of the vertebrate nervous system within the context of both abnormal and normal behaviors. Topics vary but include sensory and motor systems, reward pathways, substance abuse, neural correlates of major mental illness, and regeneration/recovery of function in the central nervous system.

**Prerequisites & Notes:** Admission to MS or MEd program in psychology or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**PSY 502 - Adult Psychopathology**

Consideration of theories relevant for understanding adult psychopathology. Current research into classification, etiology, description, diagnosis and treatment of behavioral and mental disorders. Overall orientation is to seek integration of cultural, social, psychological and physiological processes into resultant patterns of personal, social and behavioral maladaptations. Course content selected on basis of greatest utility for preparation of Master's level counselors in training.

**Prerequisites & Notes:** admission to MS or MEd program in psychology or instructor permission

**Credits:** 5

**Grade Mode:** Letter

**PSY 503 - Cognition**

Provides an overview of theories, research and applications of cognitive psychology. Topics covered range from basic perception through higher mental processes.

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**Prerequisites & Notes:** Admission to MS or MEd program in psychology or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **PSY 504 - Lifespan Psychological Development**

An overview of the major theories and principles in developmental psychology. Theories, issues and principles are highlighted through an analysis of various topics across the lifespan and as they affect the psychological development of the individual.

**Prerequisites & Notes:** Admission to MS or MEd program in psychology or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **PSY 505 - Social Psychology**

Designed to provide a thorough background in social psychology and to motivate a continuing exploration of theoretical problems and issues in the field. Students will be exposed to historical and contemporary theories and methods in social psychology.

**Prerequisites & Notes:** Admission to MS or MEd program in psychology or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **PSY 512 - Correlation Methods and Data Analysis**

Covers topics in bivariate and multivariate correlation and regression. Students learn to design correlation studies and to analyze correlational data involving one dependent variable and one or more independent variables. Topics covered include scale development and classical test theory, descriptive statistics, hypothesis testing, bivariate regression and correlation, multiple regression and correlation, dummy coding, moderation and mediation. Use of computer-based statistical software packages for data analysis and interpretation is stressed.

**Prerequisites & Notes:** Admission to MS program in psychology or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **PSY 513 - Experimental Methods and Data Analysis**

Introduces ANOVA models as special cases of the General Linear Model using a model building approach. The equivalence of regression and ANOVA are emphasized. Course addresses basic

topics in experimental research design and data analysis, highlighting theoretical and mathematical issues of most importance in published research. Topics include within and between subjects oneway and factorial designs, post hoc and a priori comparisons among multiple group means, contrasts and effect sizes, best practices in handling missing data, examining assumptions, and reporting results. Use of computer-based statistical software packages for data analysis and interpretation is stressed.

**Prerequisites & Notes:** PSY 512

**Credits:** 5

**Grade Mode:** Letter

## **PSY 515 - Multivariate Analysis**

Topics in advanced multivariate analysis including canonical analysis, discriminant functions analysis, cluster analysis and factor analysis. Logical and geometric properties of multivariate techniques and interpretation on research results are stressed.

**Prerequisites & Notes:** PSY 513

**Credits:** 3

**Grade Mode:** Letter

## **PSY 516 - Structural Equation Modeling**

Topics in restricted latent variable analysis including path analysis and structural equation modeling. Course will cover theoretical bases and computations of these procedures as well as the use of statistical software packages, with emphasis on interpreting and reporting results.

**Prerequisites & Notes:** PSY 515 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

## **PSY 517 - Advanced Multivariate Modeling**

Topics in advanced multivariate modeling, including advanced multiple regression techniques, path analysis, factor analysis, multilevel modeling, and structural equation modeling. Course will cover theoretical bases and computations of these procedures as well as the use of statistical software packages, with emphasis on interpreting and reporting results.

**Prerequisites & Notes:** PSY 512 and PSY 513.

**Credits:** 5

**Grade Mode:** Letter

## **PSY 532 - Cross-Cultural Counseling**

This seminar is a basic introduction to the cross-cultural perspective in psychology. History of the modern cross-cultural movement will be covered

along with a selection of a number of conceptual and methodological issues and problems. Topics include perception, cognition and emotion, developmental topics, social psychological variables, testing and measurement, personality and psychopathology, and virtually all areas of psychology mediated by culture and ethnicity. Some emphasis given to professional applications such as counseling.

**Prerequisites & Notes:** admission to MS or MEd program in psychology

**Credits:** 3

**Grade Mode:** Letter

### **PSY 542 - Developmental Psychopathology**

Overall working model of mental disorders diathesis-stress model. Presentation of diverse theories (e.g., attachment, family systems, genetic/physiological, individual difference, social cognition). Review of current research literature on assessment, diagnosis and treatment of childhood mental disorders within a developmental framework. Ethical considerations in clinical research and therapy with children highlighted.

**Prerequisites & Notes:** Admission to MS or MEd program in Psychology and PSY 502 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 550 - Research Methods in Counseling**

Covers content and research methods relevant to psychological processes in counseling.

**Prerequisites & Notes:** Admission to MS Mental Health Counseling or MEd School Counselor program.

**Credits:** 3

**Grade Mode:** Letter

### **PSY 551 - Developmental School Counseling**

A comprehensive overview of professional school counseling with particular emphasis upon recent advances in counseling program development, organization, evaluation and service delivery models.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program; general psychology program students with instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **PSY 553 - Theories of Counseling and Psychotherapy**

Basic orientation to counseling theories including the history and development of theories of counseling; comparison of the theories in terms of goals, process, methods; and evaluation and research in counseling; information about how to select between different theories or integrate them; meta-theoretical and trans-theoretical issues, and applying theories across diversity variables.

**Prerequisites & Notes:** Admission to MS Mental Health Counseling or MEd School Counselor programs; general curriculum students with instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **PSY 554 - Standardized Tests**

Standardized group tests commonly used in the public schools; selection and administration of tests; interpretation of norms.

**Prerequisites & Notes:** Admission to MEd school counseling, MS mental health counseling, MS experimental psychology, or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **PSY 555 - Occupations and Career Development**

Critical examination of major theories of career development and vocational counseling. Sources of occupational materials and analysis of their use and distribution in counseling practice.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program; PSY 553

**Credits:** 3

**Grade Mode:** Letter

### **PSY 556 - The Role of the School Counselor**

An advanced seminar in school counseling focusing on the professional roles and responsibilities of the counselor in elementary, middle/junior and high school settings. Particular emphasis placed upon a systems orientation to consultation services within the context of a developmental school counseling program.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program; PSY 531, PSY 555

**Credits:** 2

**Grade Mode:** Letter

### **PSY 557 - Testing and Appraisal in Counseling**

The evaluation and use of various psychological

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tests, scales and inventories in the assessment of intelligence, personality, interests and other human dimensions. Some consideration of other modes of assessment (e.g., behavioral, projective and neurological). Emphasis is on the practical application of psychological assessment in counseling. Collection, evaluation, application and interpretation of case data.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum and PSY 511, or MEd in school counseling program and PSY 554

**Credits:** 3

**Grade Mode:** Letter

### PSY 558 - Family and Couple Counseling

A review of major theories, techniques and research in psychological counseling with families. Emphasis is on parent-child developmental problems and the role of interpersonal relationships within the total family. Students are involved in limited supervised family counseling experiences.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program and PSY 553, PSY 564

**Credits:** 3

**Grade Mode:** Letter

### PSY 561 - Seminar: Professional, Legal and Cultural Issues

Consideration of the professional, cultural, ethical and legal issues and special problems in the application of psychological theories and research in educational settings, community clinics and private practice.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program

**Credits:** 3

**Grade Mode:** Letter

### PSY 564 - Individual Counseling Techniques

Skill development in individual counseling, psychotherapy and behavior modification techniques using actual interviews, simulations, videotape and other laboratory procedures. Prerequisite to practicum in individual counseling and psychotherapy.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program

**Credits:** 5

**Grade Mode:** Letter

### PSY 565 - Group Processes in Counseling

Current group counseling and psychotherapy techniques. Covers task-directed, encounter, decision-making and communication techniques. Repeatable up to 4 credits including original course.

**Prerequisites & Notes:** MS Mental Health Counseling program or MEd School Counseling program.

**Credits:** 2-4

**Grade Mode:** Letter

### PSY 567 - Professional Practice of Counseling

A comprehensive overview of the history, philosophy, credentialing, and the development of the professional organizations in counseling. Professional roles and topics for counselors such as consultation, outreach, prevention, advocacy, program evaluation, medications, and economic considerations such as funding, managed care, and private practice will also be addressed.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program

**Credits:** 2

**Grade Mode:** Letter

### PSY 568 - Crisis Interventions

This course is specifically designed to give the counselor a theoretical and practical background in crisis intervention in both school and community settings.

**Prerequisites & Notes:** Admission to MS mental health counseling curriculum or MEd school counseling program; general psychology program students with instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### PSY 570 - Practicum

Professional practice under assigned departmental supervision. Repeatable to a maximum of 15 cr. S/U grading.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program

**Credits:** 1-10

**Grade Mode:** S/U

### PSY 581 - Practicum in College Teaching of Psychology

Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** instructor permission

**Credits:** 1-12  
**Grade Mode:** S/U

**PSY 582 - Practicum in Research in Psychology**

Student initiates and conducts a project under faculty supervision. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** instructor permission  
**Credits:** 1-12  
**Grade Mode:** S/U

**PSY 584 - Research Design**

This course focuses on psychological research methods and the logic of research design.

**Prerequisites & Notes:** Admission to MS or MEd program in psychology or permission of instructor.  
**Credits:** 3  
**Grade Mode:** Letter

**PSY 585 - Scholarship & Communication 1: Presenting Research**

This course focuses on verbal communication of student research, including organization, preparation, and delivery of scholarship for varying contexts.

**Prerequisites & Notes:** PSY 584  
**Credits:** 3  
**Grade Mode:** Letter

**PSY 586 - Scholarship & Communication 2: Writing Research**

This course emphasizes written communication of research by focusing on the discipline and style of scientific writing.

**Prerequisites & Notes:** PSY 585  
**Credits:** 3  
**Grade Mode:** Letter

**PSY 661 - Advanced Seminar in Professional Issues in Counseling Practice**

An advanced seminar in professional, cultural, ethical and legal issues in counseling. For MS or MEd counseling students or counselors who are seeking advanced certification in Washington State. Repeatable for credit with different topics with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to MS mental health counseling program, MEd school counseling, certification in school counseling or instructor permission.

**Credits:** 1-4  
**Grade Mode:** S/U

**PSY 670 - Internship**

An extension of PSY 570 with increasingly independent responsibilities for practice in a professional setting. Primary supervision is by appropriate staff in the cooperating agency. Repeatable to a maximum of 30 cr. S/U grading.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program  
**Credits:** 1-12  
**Grade Mode:** S/U

**PSY 690 - Thesis**

S/U grading.

**Prerequisites & Notes:** advancement to candidacy  
**Credits:** 1-12  
**Grade Mode:** S/U

# Sociology

## Introduction

Sociologists examine topics encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race and ethnicity, and many others. Sociologists utilize a variety of information sources in their work, including census data, historical documents, transcripts from interviews, survey results, and observations of group behavior.

The Department of Sociology at Western has designed a program of course work that provides our majors with multiple opportunities to gain 1) understanding of theoretical perspectives within sociology, 2) mastery of the methods of data collection and analysis, and 3) in-depth knowledge of particular subareas. The subareas include law, crime, and deviance; families; population studies; social psychology; and social inequality. Regardless of the particular set of courses that is chosen, sociology students will develop an aptitude for critical thinking, the ability to write effectively for a social scientific audience, and competence with statistical computing that will enhance their future career options. We also offer faculty-led study abroad programs and encourage our students to experience immersion in cultures outside the United States. Recent sociology graduates have obtained positions in a variety of fields, including criminal justice, corrections, education, social services, market research, business management, and many others. Graduates have found the skills acquired in our program have prepared them for further academic studies in sociology, demography, law, social work, marriage and family counseling, business and education.

The Sociology Department offers four distinct bachelor's degrees as well as a Sociology Minor. The department maintains a number of facilities and resources that undergraduate students may use to enhance their educational experience. The Center for Social Science Instruction contains U.S. Census Bureau publications and data, a collection of census maps for the local area, and a computer lab. The director of the center is also available to assist students in accessing and analyzing large survey and census databases. The department also has its own 30-station computer laboratory for student use. Faculty are engaged in a variety of

research activities, and frequently involve undergraduate students in their work.

Students who are interested in pursuing a sociology degree should carefully read the section labeled 'Admission to Sociology Major' and are encouraged to meet with the departmental program coordinator to establish a study plan as soon as possible.

## Faculty

**MICK CUNNINGHAM** (1999) Chair and Professor. BA, Pacific Lutheran University; MA, PhD, University of Michigan.

**KRISTIN ANDERSON** (2001) Professor. BA, University of Northern Iowa; PhD, University of Texas-Austin.

**KAREN BRADLEY** (1992) Professor. BA, Providence College; MA, Boston College, Stanford University; PhD, Stanford University.

**RICHARD BULCROFT** (1999) Associate Professor. BA, University of New Hampshire; PhD, University of Minnesota.

**SETH FEINBERG** (2005) Associate Professor. BA, Tufts University; PhD, Ohio State University.

**PAT GILLHAM** (2015) Assistant Professor. BA, Eastern College; PhD, University of Colorado.

**RONALD HELMS** (2000) Professor. BA, California State University-Chico; PhD, University of Oregon.

**JENNIFER LOIS** (2000) Professor. BA, Dartmouth College; PhD, University of Colorado.

**BAOZHEN LUO** (2010) Assistant Professor. BA, Nanjing University, China; MA, PhD, Georgia State University

**LIZ MOGFORD** (2007) Associate Professor. BA, St. John's College; MA, MPH, PhD, University of Washington.

**JAY D. TEACHMAN** (1998) Professor. BA, Western Washington University; MA, PhD, University of Chicago.

**GLENN TSUNOKAI** (2003) Professor. BA, PhD, University of California-Riverside.

## Admission to Sociology Major

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better

If the preceding criteria are met, students should complete the Sociology Major Admission form.



There are two paths to becoming a Sociology major.

**Path 1 (Immediate Declaration):** Students with a cumulative GPA of 2.85 or higher may submit their admission form at any time to the Sociology Department Program Coordinator for approval and admission to the major.

**Path 2 (Application Review):** Students with a cumulative GPA lower than 2.85 should submit their admission form to the Sociology Program Coordinator on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the

major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the fourth week of classes.

**Other Departmental Information**

**Minors**

Access to courses for minors is limited as a result of space constraints. See registration policy for additional information.

## Bachelor of Arts

### Sociology, BA

Department of Sociology, College of Humanities and Social Sciences

**65 credits**

#### Introduction

Sociologists examine topics encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race and ethnicity, and many others.

#### Why Consider a Sociology Major?

Sociology students develop an aptitude for critical thinking, improve their writing ability, and gain competence with statistical computing that will enhance their future career options. Sociology students also have the opportunity to participate in faculty-led study abroad programs. Many Sociology graduates enter professions such as law, education, social services and criminal justice work.

Contact Information

**Department Chair**

Mick Cunningham  
Arntzen Hall 514  
360-650-4881  
Mick.Cunningham@wwu.edu

**Department Program Coordinator**

Andrea Osborn  
Arntzen Hall 513  
360-650-4882  
Andrea.Osborn@wwu.edu

Sample Careers

Law Enforcement | Corrections Officer | Social Worker | Business Manager | Consumer Researcher | Human Resources Manager | Probation Officer | Aging Specialist | Advertising Manager | Alcohol and Drug Case Worker

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

## SOCIOLOGY

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better
- If the preceding criteria are met, students should complete the Sociology Major Admission form. There are two paths to becoming a Sociology major.
- Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their admission form at any time to the Sociology Program Coordinator for approval and admission to the major.
- Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their admission form to the Sociology Program Coordinator on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the fourth week of classes.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Any ONE of the following introductory courses:
  - SOC 221 - Introduction to Population Issues
  - SOC 234 - Special Topics in Sociology
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- Core requirements:
  - SOC 302 - Classical Sociological Theory
  - SOC 304 - Statistics for Sociology
  - SOC 306 - Sociological Research Methods
- One course from the following list of capstone seminars:
  - SOC 426 - Advanced Topics in Demography
  - SOC 430 - Field Research Methods
  - SOC 435 - Population Health Advocacy
  - SOC 440 - Globalization
  - SOC 450 - Sociology of Law
  - SOC 452 - Advanced Criminology
  - SOC 456 - Seminar in Policing
  - SOC 460 - Advanced Topics in Family
  - SOC 461 - Advanced Sociology of Education
  - SOC 469 - Advanced Topics in Race and Ethnicity
  - SOC 492 - Senior Thesis
- Electives under departmental advisement to bring the total to a minimum of 65 credits; select from any 200-level introductory course or from any 300/400-level courses in sociology.
  - A maximum of 10 credits of 100-level or 200-level sociology coursework may be applied to the major.
  - A maximum of 10 credits combined from SOC 371, SOC 400, SOC 481 may be applied to the 65 credits required for the major.
  - Note:** SOC 480 (TA) may not be applied toward the major; however SOC 480 applies as a university elective toward the total 180 credits required for graduation.

### Sociology/Social Studies, BA

Department of Sociology, College of Humanities and Social Sciences

**81-85 credits**

## Introduction

Sociologists examine topics encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race and ethnicity, and many others.

Completion of the BA Sociology/Social Studies leads to an endorsement in social studies. To receive a recommendation for state of Washington certification for secondary education, students must complete the teacher certification program, including the content methods course SEC 426, which is offered by the Department of Secondary Education as 1) a part of the undergraduate BA degree, or 2) as a post-baccalaureate program, or 3) as part of the Master's in Education degree.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Why Consider a Sociology/Social Studies Major?

Sociology students develop an aptitude for critical thinking, improve their writing ability, and gain competence with statistical computing that will enhance their future career options. Sociology students also have the opportunity to participate in faculty-led study abroad programs.

A specialization in Sociology/Social Studies provides an excellent base of knowledge for individuals interested in becoming secondary-level social studies teachers.

Contact Information	
<b>Department Chair</b> Mick Cunningham Arntzen Hall 514 360-650-4881 Mick.Cunningham@wwu.edu	<b>Department Program Coordinator</b> Andrea Osborn Arntzen Hall 513 360-650-4882 Andrea.Osborn@wwu.edu
<b>Secondary Education Information</b> Janna Cecka Miller Hall 401C 360-650-3347 wce.wwu.edu/sec/secondary-education	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 wce.wwu.edu/admissions/secondary-education
Sample Careers	
Teacher - Secondary Education	
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

## How to Declare (Admission and Declaration Process):

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better
- If the preceding criteria are met, students should complete the Sociology Major Admission form. There are two paths to becoming a Sociology major.
- Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their admission form at any time to the Sociology Program Coordinator for approval and admission to the major.
- Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their admission form to the Sociology Program Coordinator on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the fourth week of classes.

# SOCIOLOGY

## Grade Requirements

Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

## Requirements

### Sociology Course Requirements (40 credits)

- Any ONE of the following introductory courses:
  - SOC 221 - Introduction to Population Issues
  - SOC 234 - Special Topics in Sociology
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- Core Requirements:
  - SOC 302 - Classical Sociological Theory
  - SOC 304 - Statistics for Sociology
  - SOC 306 - Sociological Research Methods
  - Three courses from:
    - SOC 326 - American Family and Household Demography
    - SOC 330 - The Self, Emotions, and Society
    - SOC 332 - The Sociology of Human Relationships
    - SOC 333 - Aging and Societies
    - SOC 338 - Sociology of Sexual Behavior
    - SOC 340 - Sociology of Organizations
    - SOC 345 - Contemporary American Families
    - SOC 348 - Global Health
    - SOC 352 - Criminology
    - SOC 355 - Criminal Justice System
    - SOC 360 - Marital and Family Interaction
    - SOC 361 - Sociology of Education
    - SOC 363 - Law and Social Stratification
    - SOC 364 - Social Stratification
    - SOC 367 - Sociology of Work and Occupations
    - SOC 368 - Gender and Education
    - SOC 369 - Sociology of Race and Ethnicity
    - SOC 380 - Sociology of Youth
    - SOC 390 - Globalization and Families
  - One course from:
    - SOC 461 - Advanced Sociology of Education (preferred)
    - SOC 492 - Senior Thesis
    - Other 400-level capstone seminar

### Social Studies Course Requirements (41-45 credits)

- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)
- One course from:
  - ECON 207 - Introduction to Macroeconomics

- ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
- One course from:
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 220 - Map Reading and Analysis
  - ENVS 221 - Geographic Information Science Survey
  - ENVS 240 - Geography and World Affairs
  - ENVS 320 - GIS I: Introduction to Geographic Information Science
  - ENVS 342 - Geography of the World Economy
  - ENVS 343 - Urbanization: Processes and Patterns

## Bachelor of Arts in Education

### Sociology — Elementary, BAE

Department of Sociology, College of Humanities and Social Sciences

**50 credits**

#### Introduction

Sociologists examine topics encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race and ethnicity, and many others.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Sociology-Elementary Major?

Sociology students develop an aptitude for critical thinking, improve their writing ability, and gain competence with statistical computing that will enhance their future career options. Sociology students also have the opportunity to participate in faculty-led study abroad programs.

A specialization in Sociology-Elementary major provides an excellent base of knowledge for individuals interested in becoming elementary level educators.

<b>Contact Information</b>		
<b>Department Chair</b> Mick Cunningham Arntzen Hall 514 360-650-4881 Mick.Cunningham@wwu.edu	<b>Department Program Coordinator</b> Andrea Osborn Arntzen Hall 513 360-650-4882 Andrea.Osborn@wwu.edu	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wwu.edu/eled/elementary-education">https://wce.wwu.edu/eled/elementary-education</a>	<b>Teacher Education Admissions</b> Miller Hall 214 360-650-3313 <a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>	
<b>Sample Careers</b>		
Elementary Teacher		
<b>Major/Career Resources</b>		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

# SOCIOLOGY

## How to Declare (Admission and Declaration Process):

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better
- If the preceding criteria are met, students should complete the Sociology Major Admission form. There are two paths to becoming a Sociology major.
- Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their admission form at any time to the Sociology Program Coordinator for approval and admission to the major.
- Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their admission form to the Sociology Program Coordinator on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the fourth week of classes.

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

## Requirements

### Sociology Course Requirements (50 credits)

- Any ONE of the following introductory courses:
  - SOC 221 - Introduction to Population Issues
  - SOC 234 - Special Topics in Sociology
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- Core Requirements:
  - SOC 302 - Classical Sociological Theory
  - SOC 304 - Statistics for Sociology
  - SOC 306 - Sociological Research Methods
- Three courses from:
  - SOC 326 - American Family and Household Demography
  - SOC 330 - The Self, Emotions, and Society
  - SOC 332 - The Sociology of Human Relationships
  - SOC 333 - Aging and Societies
  - SOC 338 - Sociology of Sexual Behavior
  - SOC 340 - Sociology of Organizations
  - SOC 345 - Contemporary American Families
  - SOC 348 - Global Health
  - SOC 352 - Criminology
  - SOC 355 - Criminal Justice System
  - SOC 360 - Marital and Family Interaction
  - SOC 361 - Sociology of Education
  - SOC 363 - Law and Social Stratification
  - SOC 364 - Social Stratification
  - SOC 367 - Sociology of Work and Occupations
  - SOC 368 - Gender and Education
  - SOC 369 - Sociology of Race and Ethnicity
  - SOC 380 - Sociology of Youth

- SOC 390 - Globalization and Families
- One course from:
  - SOC 461 - Advanced Sociology of Education
  - SOC 492 - Senior Thesis
  - Other 400-level capstone seminar
- Two additional courses: Electives under departmental advisement to bring the total to a minimum of 50 credits in Sociology.
  - A maximum of 10 credits of 100-level or 200-level sociology coursework may be applied to the major.

## Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators

# SOCIOLOGY

- ❑ ELED 491 - September Experience
- ❑ ELED 492 - Practicum: Experience in Literacy Methods
- ❑ ELED 494 - Internship - Elementary
- ❑ HLED 455 - Health Education Grades K-8
- ❑ MATH 381 - Teaching K-8 Mathematics I
- ❑ MATH 382 - Teaching K-8 Mathematics II
- ❑ MATH 383 - Teaching K-8 Mathematics III
- ❑ MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- ❑ PE 345 - Physical Education for Elementary School
- ❑ SCED 480 - Science Methods and Curriculum for the Elementary School
- ❑ SCED 490 - Laboratory/Field Experience in Elementary Science

## Bachelor of Science

### Sociology, BS

Sociology, College of Humanities and Social Sciences

**69 credits**

#### Introduction

Sociologists examine topics encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race and ethnicity, and many others.

#### Why Consider a Sociology Major?

Students pursuing the B.S. in Sociology are required to complete a math-intensive course of study. They will also develop an aptitude for critical thinking and improve their writing ability. Students will obtain substantial experience with statistical computing, including programming and data analysis. Majors with a B.S. degree are well positioned to enter graduate school, to become government data analysts, or to conduct market research.

#### Contact Information

##### Department Chair

Mick Cunningham  
Arntzen Hall 514  
360-650-4881  
Mick.Cunningham@wwu.edu

##### Department Program Coordinator

Andrea Osborn  
Arntzen Hall 513  
360-650-4882  
Andrea.Osborn@wwu.edu

#### Sample Careers

Business Manager | Consumer Researcher | Human Resources Manager | Advertising Manager | Data Analyst  
| Research Analyst | Demographics Analyst

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better
- If the preceding criteria are met, students should complete the Sociology Major Admission form. There are two paths to becoming a Sociology major.



- Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their admission form at any time to the Sociology Program Coordinator for approval and admission to the major.
- Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their admission form to the Sociology Program Coordinator on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the fourth week of classes.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- Any ONE of the following introductory courses:
  - SOC 221 - Introduction to Population Issues
  - SOC 234 - Special Topics in Sociology
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- Core requirements:
  - SOC 302 - Classical Sociological Theory
  - SOC 304 - Statistics for Sociology
  - SOC 306 - Sociological Research Methods
- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- MATH 204 - Elementary Linear Algebra
- SOC 320 - Computer Applications for Social Science Data
- SOC 400 - Directed Independent Study
- SOC 426 - Advanced Topics in Demography
- SOC 492 - Senior Thesis
- At least 15 credits of elective courses under departmental advisement
  - A maximum of 10 credits of 100-level or 200-level sociology coursework may be applied to the major.
  - A maximum of 10 credits combined from SOC 371, SOC 400, SOC 481 may be applied to the 69 credits required for the major.
  - Note:** SOC 480 (TA) may not be applied toward the major; however SOC 480 applies as a university elective toward the total 180 credits required for graduation.

## Minor

### Sociology Minor

Department of Sociology, College of Humanities and Social Sciences

#### 25 credits

#### Introduction

Sociologists examine topics encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race and ethnicity, and many others.

# SOCIOLOGY

## Why Consider a Sociology Minor?

A Minor in Sociology is likely to benefit students across a wide range of majors. Students entering professions such as education, business, journalism, law enforcement, and human services are likely to gain skills and knowledge that will allow them to better understand clients, co-workers, and work-related processes.

Contact Information	
<b>Department Chair</b> Mick Cunningham Arntzen Hall 514 360-650-4881 Mick.Cunningham@wwu.edu	<b>Department Program Coordinator</b> Andrea Osborn Arntzen Hall 513 360-650-4882 Andrea.Osborn@wwu.edu
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

## How to Declare (Admission and Declaration Process):

A Minor Declaration Card is available from the Sociology Program Coordinator.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- One or two from:
  - SOC 221 - Introduction to Population Issues
  - SOC 234 - Special Topics in Sociology
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- A maximum of 10 credits of 100-level or 200-level sociology coursework may be applied to the minor.
- Electives under departmental advisement (from 300- or 400-level sociology courses with prerequisites completed; not to include SOC 371, SOC 400, SOC 480 or SOC 492)

## Sociology Courses

### SOC 221 - Introduction to Population Issues

Processes determining population growth - fertility, mortality and migration - and their influence on economic development in the more- and less-developed countries of the world; population policies in various countries and their implications for population growth and future development.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### SOC 234 - Special Topics in Sociology

This course investigates a range of sociological issues by focusing on a specific topic over the course of one term. Topics may be offered A) based on unique areas of faculty expertise and/or B) in order to address emerging social issues in a

timely fashion that are not covered by courses in the current catalog. Students' learning will include exposure to theoretical perspectives in the discipline, discussion of various methodological approaches to social inquiry, and the opportunity to apply key concepts. Repeatable with different topics to a maximum of 10 credits, including original course. May be taken only once for GUR credit.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### SOC 251 - Sociology of Deviant Behavior

A broad overview of concepts, issues and research findings in the sociological study of deviant behavior; how deviance is defined, reacted to and punished in American society. Emphasis on contemporary theoretical perspectives, along with current issues in deviance.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **SOC 255 - Social Organization of Criminal Justice**

A survey of basic concepts, problems and issues in the sociological study of social organizations applied to the criminal justice system.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **SOC 260 - The Family in Society**

Introduction to the study of family as a social institution in society. Overview of social theories on the family and methodological underpinnings of the field of family study. Emphasis on the family as agent of stratification in society, changing roles of men and women in the context of the American family, contemporary issues relating to family social policy today, and the interplay between family and society across time and cultures.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **SOC 268 - Gender and Society**

Introduction to major concepts, issues and research findings regarding the relationship between gender and social structures. Aspects of society examined include education, work, family, law, government and the media. Discussion includes interrelationship between gender, race, class and age. Focus on the U.S., with some cross-national material.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **SOC 269 - Race and Ethnic Relations**

Introduces students to the sociology of race and ethnic relations in the United States. Surveys racial and ethnic minority groups and provides a historical context for their relative positions in the United States by considering the dynamics of the political and economic climate, racial/ethnic attitudes, interminority relations, and social policy.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **SOC 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **SOC 302 - Classical Sociological Theory**

The emergence of sociology: sociology as response to the Industrial Revolution and as an attempt to develop a scientific understanding of social organization, behavior and change; the development of social thought; Comte, Spencer, Marx, Durkheim and Weber.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.

**Credits:** 5  
**Grade Mode:** Letter

### **SOC 304 - Statistics for Sociology**

An applied statistics course that introduces students to two important aspects of statistics: (1) graphical and numerical procedures for describing and summarizing data; and (2) quantitative analysis of data to make decisions and predictions and draw inferences. This course also involves the use of computers for statistical analysis and introduces students to the most common statistics used by sociologists.

**Prerequisites & Notes:** MATH 107 or MATH 112 or equivalent; And any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269. Major restricted.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

### **SOC 306 - Sociological Research Methods**

Focuses on applying research methods used by sociologists. Examines the principles of research design, the nature of empirical observations, sampling and measurement techniques, and applied narrative and statistical analysis. Engages students in the steps of the research process and examines effective social science writing techniques.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.

**Credits:** 5  
**Grade Mode:** Letter

## SOCIOLOGY

### **SOC 320 - Computer Applications for Social Science Data**

Designed to integrate fundamental statistical knowledge with direct computer applications for the organization and analysis of data sets encountered in social science research. Training in the use of library statistical routines (e.g., SPSS) central to research in the social sciences is emphasized.

**Prerequisites & Notes:** SOC 304 or equivalent; and any one from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 321 - Demography**

Systematic introduction to the study of human populations. Designed for students interested in the subject regardless of their major discipline. Examines social, economic and biological factors associated with fertility, mortality and migrations.

**Prerequisites & Notes:** SOC 304 or equivalent; and any one course from SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 326 - American Family and Household Demography**

Description and explanation of trends in family behavior and family policy, with an emphasis on the influence of demographic factors. Topics include childhood, independent living, cohabitation, marriage, divorce, work and family, household structure, and aging.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 330 - The Self, Emotions, and Society**

Examines the relationship between the self and society, including topics such as the nature of the self, the development of self-concept, the social construction of emotions and their impact on sense of self, and the social organization of identity. Emphasizes the theoretical perspective of symbolic interaction and its relationship to qualitative research.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 332 - The Sociology of Human Relationships**

A social psychological examination of liking, loving and relating. Emphasis on dyadic relationships such as marriage, friendship and parent-child relationships. Topics include socialization into romance and love, historical linkages between industrialization and the 'feminization' of love, sociological perspectives on liking and loving, and research methods used in the study of dyadic relationships.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 333 - Aging and Societies**

Basic theories, methods and concepts in the field of social gerontology highlighting demographic trends in aging locally, nationally, and globally, the effects of population aging in developing and developed countries, individual accommodations to the aging process in different societies, the social construction of old age across cultures, and social policy in relation to the stratification of the aged and an increasingly elderly population from a comparative perspective.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 334 - Contemporary Chinese Society**

This course provides an overview of various aspects of contemporary Chinese society since the establishment of the People's Republic of China in 1949. Students will gain basic literacy in the historical, social, cultural, and political domains within contemporary China. In particular, the course will focus on on-going social changes in Reform-era China (1978 - present) related to the party-state regime, civil society, population growth and urbanization, environmental issues, family, kinship, marriage, sexuality, and related topics.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268, or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**SOC 338 - Sociology of Sexual Behavior**

Human sexuality, with an emphasis on Western cultures and the United States in particular, is studied from a scientific perspective. Emphasis on both description and explanation of patterns and diversity in sexuality. While focusing on the social dimensions of sexuality, the historical, biological and psychological aspects of sexuality are integrated into a comprehensive overview.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**SOC 340 - Sociology of Organizations**

Introduction to major theoretical perspectives and research on public and private organizations, such as corporations, schools and health-care facilities. Formal and informal structures, the relationship between organizations and their environments, leadership, decision-making and labor markets.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**SOC 341 - Sociology of Social Movements**

This class will explore sociological understandings of social movements, starting with the collective behavior theories of the 1950s and continuing to contemporary, constructivist understandings. Over the course of the class, students will learn how sociologists understand collective action undertaken to bring about social change, examine various theories and models, explore some of the history of social movements in our country, and simulate social movement participation.

**Prerequisites & Notes:** One course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268, or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**SOC 342 - Sociology of Religion**

Explores the sociological perspective on religion. Focuses on religion's persistent relevance to societies and to smaller groups and the effects of secularization. Assesses the social patterns of religious participation, by race, class, immigrant status, age, gender. Investigates the connections between religion and other social institutions such as the economic, educational and political systems.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

**SOC 345 - Contemporary American Families**

Applies a sociological perspective to the study of contemporary families. Investigates current patterns of sexuality, relationship formation, parenting, the gendered division of labor, migration, and other key dimensions of family life. Focuses on understanding sources of difference in family forms across important social divisions such as race, class, and age.

**Prerequisites & Notes:** One course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**SOC 348 - Global Health**

Introduces students to the main concepts of global health, with a particular emphasis on sociological determinants of health. Focuses on the demographic and epidemiological transitions, gender and reproductive health, human rights, and the global burden of disease. Evaluates the role of international institutions, such as the World Bank and non-governmental organizations, in the organization and delivery of health services in underdeveloped countries. Understanding the root causes of health disparities and strategies for the achievement of health equity is central to the course. Please note: this course includes an engaging group project that requires students to hold several out-of-class meetings. Please take this into consideration before you enroll.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

**SOC 352 - Criminology**

The study of adult crime, defined as violation of legal norms. Focuses on problems of measurement and attempts to explain crime as a social phenomenon and a cultural product. Includes in-depth analysis of various forms and classes of crimes and their victims.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

## SOCIOLOGY

**Credits:** 5

**Grade Mode:** Letter

### **SOC 354 - Domestic Violence and the Criminal Justice System**

A survey of sociological research on domestic violence and the criminal justice system. Examines the historical and cultural changes that contributed to the classification of domestic violence as a crime, the characteristics of domestic assault, and the variety of criminal justice interventions into domestic violence.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 355 - Criminal Justice System**

Overview of the social organization of the criminal justice system in the United States. Examination of the organizations that create and enforce the criminal law as well as major issues currently confronting this system (plea bargaining, discrimination, limitations on due process).

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, 268, or SOC 269. SOC 255 preferred.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 356 - Law Enforcement and Society**

Review of research on the organization of law enforcement. Topics include impact of legal and organizational controls on police behavior, police use of deadly force, minorities and policing, and community policing.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 360 - Marital and Family Interaction**

Examines systems and interactional perspectives on marriage and family dynamics. The focus of this course is on family adaptation as a function of system processes and interactional patterns.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 361 - Sociology of Education**

Analysis of the historical origins and spread of public education, the internal organization of schools and classrooms and the social impact of education. Schooling as a major form of socialization and status placement; political and legal bases of education; non-formal schooling; education and nation-state formation.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 363 - Law and Social Stratification**

Examination of current sociological research on the ways in which the creation and application of law are conditioned by class, racial, gender, and ethnic inequalities in society. Applies several general sociological theories of stratification to a range of cases in both civil and criminal law.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 364 - Social Stratification**

Social causes and consequences of inequality in America. Social distribution of wealth, power and status; emphasis on poverty and racial social inequality.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 365 - Gender, Bodies, and Sports**

Applies sociological perspectives to study the relationship between gender, bodies, and sports in the U.S. society. Focuses on contemporary sociological theories of gender and bodies and their application to sport as a social institution.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### **SOC 366 - Colonialism, Slavery, and Links to Contemporary Racism**

A seminar course to analyze the precursors of contemporary racism using a sociological perspective of racial inequality in the United States and in western, eastern, and southern Africa. There is a specific examination of the historical record of colonialism, slavery, and interethnic rivalry with a particular emphasis on the lasting effects of slavery for people of color in many parts of Africa and the United States.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **SOC 367 - Sociology of Work and Occupations**

Sociological and social-psychological significance of work; factors affecting contemporary career patterns/life cycle changes; sex, race, ethnic and social class differences; structural characteristics of selected occupational areas.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 368 - Gender and Education**

Examines the relationship between gender and education within the U.S. context and internationally. We will consider girls and boys, women and men, in various levels of schooling. The ways in which race and class interact with gender in educational attainment and achievement also will be examined.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269; SOC 268 preferred or course with equivalent gender content.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### **SOC 369 - Sociology of Race and Ethnicity**

Provides a review of historical, theoretical and empirical work in the sociology of race and ethnicity. Emphasis on primary material in the areas of ethnic assimilation, racial attitudes, and racial and ethnic inequality in the United States.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269; SOC 269 or minority relations course preferred.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 371 - Directed Internship**

Application of sociological concepts and methods to better understand social issues and problems while engaged in on-site work experiences in approved settings. All interns work at least 10 hours per week at the internship site, in the type of work specified in the contract. In addition, students complete several written assignments, including a research paper. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** SOC 302 and SOC 306

**Credits:** 5

**Grade Mode:** Letter

### **SOC 376 - Research and Policy in Criminal Justice Organizations**

Examines the sociological studies of criminal justice policy formation and change. Outlines connections between criminal justice policy planning, program design, organizational structure and process considerations, and various methods used to assess change processes and to evaluate program outcomes.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 378 - Military Sociology**

This course draws on philosophical works as well as theoretical and applied research to assess the current status of the U.S. military and its relations with civilian government and society since the Vietnam War and Cold War experiences. Emphasis is placed on emerging threats to U.S. national security and the military's national defense mission under the changing conditions associated with the era of globalism.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 380 - Sociology of Youth**

Sex and age status definitions and role-taking; historical, institutional and social process aspects of maturation, with special emphasis on Western industrial society from the 18th century to the present.

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**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 388 - Sociology of Jails**

This course emphasizes sociological analysis of local jail operations, including populations, funding, management, legal, and regulatory aspects and roles of various professions operating in the jail environment.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 390 - Globalization and Families**

An examination of the phenomenon of globalization and a review of the literature on how globalization is affecting families around the world. Included is a consideration of impacts on relationship formation, marriage, parenting, childhood and later life families.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 234, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **SOC 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **SOC 426 - Advanced Topics in Demography**

Analysis of fertility or mortality issues in both developed and developing countries; proximate determinants of fertility; birth-spacing and family limitation practices; infant and child mortality; life expectancy.

**Prerequisites & Notes:** SOC 302; SOC 304 or PSY 302 or SOC 215; SOC 306 or PSY 301 or SOC 210; and SOC 320.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 430 - Field Research Methods**

Presents skills to conduct qualitative sociological research. Emphasizes ethnographic techniques such as direct observation, participant observation, intensive interviewing, data analysis, literature review, and report writing. Each student conducts original sociological research by entering a specific social setting, collecting and analyzing data within that setting, and producing a comprehensive paper on the findings.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; SOC 330 highly recommended.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 435 - Population Health Advocacy**

The goals of this capstone course are to understand population health dynamics and health equity through research-based advocacy. In addition to studying the literature and theories of population health, the social determinants of health, and health promotion, you will complete a community-based research project. Each year the research topic varies, depending on the needs of the community partner organization or on the particular research objectives. Typically, the research will be conducted as a team, so students will gain leadership and management skills and be required to collaborate closely with other classmates. Depending on the specific project, quantitative or qualitative methods may be used.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; and SOC 348.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 440 - Globalization**

Examines the economic, cultural and political components of globalization. Special topics include the new forms of inequality that have emerged with global interdependence and debates concerning the benefits and dangers associated with globalization.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 450 - Sociology of Law**

A capstone research seminar in which students develop an individual project, write a review of previous research, and conduct an analysis using



secondary data sources to study the effects of laws on society (e.g., consequences of no-fault divorce laws) and the social bases of legal change (e.g., factors influencing state adoption of sentencing guidelines).

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 452 - Advanced Criminology**

An in-depth examination of selected areas in sociological criminology.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; and SOC 352.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 456 - Seminar in Policing**

An in-depth review of research on the organization of law enforcement. Advanced topics include impact of legal and organizational controls on police behavior, police use of deadly force, minorities and policing, and community policing.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 460 - Advanced Topics in Family**

Focus varies, depending on instructor. Emphasis on current research in family sociology. Topics may include family violence, demographic analysis of family structures, family life course development, family and the economy, parent-child interaction, family and social policy, and others.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 461 - Advanced Sociology of Education**

Focus varies, depending on instructor. Topics may include the organization of educational systems within the United States and cross-nationally, school/classroom organization and their effects on student learning and educational attainment; examination of special topics on-site in specific school settings.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 469 - Advanced Topics in Race and Ethnicity**

An in-depth examination on current issues surrounding race and ethnic relations (e.g., interracial dating, prejudice and discrimination, and hate group involvement).

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; and SOC 369 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **SOC 480 - Learning and Teaching Sociology**

The teaching assistantship is intended to provide students with practical experience in the teaching of sociology at the undergraduate level. To that end, students will get hands-on experience in the various activities associated with teaching a particular course in the department. TA duties may include leading discussion groups, assisting the instructor in preparing lecture material, and assisting students in the class with understanding course material. A more detailed list of sample activities may be obtained from the academic advisor. Actual duties will vary by course and instructor. Credit is determined by the instructor depending on the actual duties of the teaching assistant. Repeatable to a maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 2-5

**Grade Mode:** S/U

### **SOC 481 - Research Assistantship**

Course is structured consistent with the apprenticeship model. Students will work closely with one faculty member, assisting in sociological research. Actual activities will vary depending upon the nature and stage of the research project. Responsibilities may include data set construction and/or analysis, interviewing and interview transcription, and library searches. Students are required to submit a report or project journal to the supervising instructor in a format to be mutually agreed upon at the start of the assistantship. Repeatable to a maximum of 10 cr.

**Credits:** 2-5

**Grade Mode:** Letter

## SOCIOLOGY

### **SOC 492 - Senior Thesis**

The student is required to complete the senior thesis contract in consultation with his/her senior thesis faculty advisor prior to taking the SOC 400/492 sequence.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210. 5 credits of SOC 400 taken with student's senior thesis faculty advisor before and in preparation for senior thesis.

**Credits:** 5

**Grade Mode:** Letter

# Women, Gender, and Sexuality Studies

chss.wvu.edu/wgss

The Women, Gender, and Sexuality Studies program offers students an interdisciplinary approach to the study of the formation of sex, gender, and sexuality as they intersect with structures of power including, but not limited to, race, class, ethnicity, nationality, religion, age, and ability. Courses in the program address three basic areas: women, gender, and sexuality in history and politics; women, gender, and sexuality in science and society; and women, gender, and sexuality in language and the arts.

The minor includes core courses and additional electives for a total of 30 credits. Students are required to earn at least a C+ in courses counting toward the minor.

Students may design a student/faculty-designed major through the College of Humanities and Social Sciences. Procedures are available from the Department of Liberal Studies at [chss.wvu.edu/liberal-studies](http://chss.wvu.edu/liberal-studies). Close advisement is recommended, as new courses may apply to this minor.

Students who wish to declare a minor in Women, Gender, and Sexuality Studies are required to register with the Director or Program Manager. For program advisement, contact Vicki Hsueh, Director, Arntzen Hall 405 (Mail Stop 9082), 360-650-2649, or Kim Kolb Ayre, Program Manager, Environmental Studies 603, (Mail Stop 9099), 360-650-3763.

## Participating Faculty

**KRISTIN ANDERSON**, Sociology. Gender and society, the family in society, domestic violence and the criminal justice system.

[Kristin.Anderson@wvu.edu](mailto:Kristin.Anderson@wvu.edu)

**JEANNE ARMSTRONG**, Library. Women studies, comparative cultural studies, scholarly communication. [Jeanne.Armstrong@wvu.edu](mailto:Jeanne.Armstrong@wvu.edu)

**BIDISHA BISWAS**, Political Science. Diaspora politics, international relations, ethnic and civic conflicts, terrorism. [Bidisha.Biswas@wvu.edu](mailto:Bidisha.Biswas@wvu.edu)

**KAREN BRADLEY**, Sociology. Education, gender, cross-national research regarding women and higher education, organizations.

[www.wvu.edu/soc/bios/bradley.shtml](http://www.wvu.edu/soc/bios/bradley.shtml)

[Karen.Bradley@wvu.edu](mailto:Karen.Bradley@wvu.edu)

**ANDREW BROWN**, Performance Art, Fairhaven College. Performing gender and sexuality, queer of color critique, queer and trans performance and activism, transnational gender and sexuality,

African gender and sexuality.

[Andrew.Brown@wvu.edu](mailto:Andrew.Brown@wvu.edu)

**JOSH CERRETTI**, History and WGSS. Local and transnational feminisms, memory, trauma, and violence in wartime. [Josh.Cerretti@wvu.edu](mailto:Josh.Cerretti@wvu.edu)

**MARIA CHAVEZ**, Anthropology. Latin America women with an emphasis on Central America women, Mayan indigenous women.

[Maria.Chavez@wvu.edu](mailto:Maria.Chavez@wvu.edu)

**ELIZABETH COLEN**, English. Hybrid genres, experimental writing, ecopoetics, and literary collage. [Elizabeth.Colen@wvu.edu](mailto:Elizabeth.Colen@wvu.edu)

**BARBARA COLLAMER**, Psychology. Gender issues, learning and cognitive development, adolescent development.

[Barbara.Collamer@wvu.edu](mailto:Barbara.Collamer@wvu.edu)

**SUSAN COSTANZO**, History. Russian women's history and culture. [Susan.Costanzo@wvu.edu](mailto:Susan.Costanzo@wvu.edu)

**SHIRIN DEYLAMI**, Political Science. Feminist and queer theory; post-colonial and Islamic thought; and gender and Islam. [Shirin.Deylami@wvu.edu](mailto:Shirin.Deylami@wvu.edu)

**JULIE DUGGER**, English. Women writers, gender and genre, the romance novel.

[Julie.Dugger@wvu.edu](mailto:Julie.Dugger@wvu.edu)

**MARIE EATON**, Fairhaven College.

Lesbian/gay/bisexual/transgendered issues in education. [Marie.Eaton@wvu.edu](mailto:Marie.Eaton@wvu.edu)

**LENA ERICKSEN**, Psychology. Gender issues. [Lena.Ericksen@wvu.edu](mailto:Lena.Ericksen@wvu.edu)

**AMANDA EURICH**, History. Gender, sexuality, and religion in early modern Europe.

[Amanda.Eurich@wvu.edu](mailto:Amanda.Eurich@wvu.edu)

**ALLISON GIFFEN**, English. Early 19th century American women writers and American women poets. [Allison.Giffen@wvu.edu](mailto:Allison.Giffen@wvu.edu)

**CAROL GUESS**, English. Queer Studies, Creative Writing. [Carol.Guess@wvu.edu](mailto:Carol.Guess@wvu.edu)

**JOYCE HAMMOND**, Anthropology. Cross-cultural women studies, gender in visual media and popular culture, gender and body, women's folk arts. [faculty.wvu.edu/jhammond/](http://faculty.wvu.edu/jhammond/)

[Joyce.Hammond@wvu.edu](mailto:Joyce.Hammond@wvu.edu)

**PAM HARDMAN**, English. Women's literature, cultural studies, medical institutions' treatment of women. [Pam.Harden@wvu.edu](mailto:Pam.Harden@wvu.edu)

**VICKI HSUEH**, Political Science. Feminist political theory, political participation and gender, post-colonialism, ethnicity, and race.

[Vicki.Hsueh@wvu.edu](mailto:Vicki.Hsueh@wvu.edu)

**HEMANI HUGHES**, Communication Studies. Gender, media, and theory.

[Hemani.Hughes@wvu.edu](mailto:Hemani.Hughes@wvu.edu)

**DANA JACK**, Fairhaven College. Gender issues in cultural contexts, including women's psychology, depression, eating disorders, anger and aggression in women. [Dana.Jack@wvu.edu](mailto:Dana.Jack@wvu.edu)

**LAURA LAFFRADO**, English. Early U.S. literature and culture, U.S. women's writing, women's autobiographical writing.

[news.wvu.edu/go/doc/1538/266053/](http://news.wvu.edu/go/doc/1538/266053/)

[Laura.Laffrado@wvu.edu](mailto:Laura.Laffrado@wvu.edu)

**KEVIN LEONARD**, History. U.S., West, Pacific

## WOMEN, GENDER, AND SEXUALITY STUDIES

Northwest, Lesbian/gay/bisexual/transgendered studies. Kevin.Leonard@wwu.edu

**JASON LIND**, Communication Studies. Rhetoric, interpersonal communication.

Jason.Lind@wwu.edu

**ANNE LOBECK**, English. Language and gender. myweb.facstaff.wwu.edu/annelob/

Anne.Lobeck@wwu.edu

**JEN LOIS**, Sociology. Social psychology, emotions, gender, qualitative methods.

www.wwu.edu/soc/bios/lois.shtml

Jennifer.Loos@wwu.edu

**BAOZHEN LUO**, Sociology. Family and life course, social gerontology, Asian/American.

Baozhen.Luo@wwu.edu

**KELLY MAGEE**, English. Creative Writing, lesbian/gay/bisexual/transgendered studies.

Kelly.Magee@wwu.edu

**KRISTIN MAHONEY**, English. 20th and 21st century cultures, women and literature.

Kristin.Mahoney@wwu.edu

**ED MATHIEU**, History. German history, gender, and sexuality. Ed.Mathieu@wwu.edu

**MARY JANELL METZGER**, English. Feminist theory, globalization, women and literature.

Mary.Metzger@wwu.edu

**BARBARA MILLER**, Art History. Feminist art theory, contemporary women artists, and the representation of gender in modern and contemporary visual culture.

Barbar.Miller@wwu.edu

**KATE MILLER**, Women, Gender, and Sexuality Studies. Introduction to Women Studies, lesbian/gay/bisexual/transgendered studies, creative writing, feminist theory.

Kate.Miller@wwu.edu

**HELEN MORGAN PARMETT**, Communication Studies. Critical media studies, critical race theory, media production studies, gender and television, media, space & cities, branding, media & sport culture, cultural policy, and neighborhoods.

Helen.MorganParmett@wwu.edu

**JUSTIN MORGAN PARMETT**, Communication Studies. Rhetoric, interpersonal communication.

Justin.MorganParmett@wwu.edu

**CYNTHIA MOULDS**, Women, Gender, and Sexuality Studies. Introduction to Women Studies, gender and globalization, transnational feminism.

Cynthia.Moulds@wwu.edu

**CAROLYN NIELSEN**, Journalism. Diversity, mass media and social change as it relates to women's lives. Carolyn.Nielsen@wwu.edu

**SHIRLEY OSTERHAUS**, Fairhaven College.

Human rights and gender differences on a local and global scale. Shirley.Osterhaus@wwu.edu

**NANCY PAGH**, English. Gender and Pacific Northwest regional studies, women and environments, women and space.

Nancy.Pagh@wwu.edu

**SUZANNE PAOLA**, English. Creative writing, women and literature. Suzanne.Paola@wwu.edu

**RACHEL PAUL**, Political Science. Women and

politics. Rachel.Paul@wwu.edu

**LYSA RIVERA**, English. Chicano/a and African American literature and culture, science fiction, literature and cultura. Lysa.Rivera@wwu.edu

**BARBARA ROFKAR**, Women, Gender, and Sexuality Studies. Women and globalization, Peace studies. Barbara.Rofkar@wwu.edu

**DEBRA J. SALAZAR**, Political Science. Queer politics, social justice, social change, women and environmental politics.

myweb.facstaff.wwu.edu/~salazard/

Debra.Salazar@wwu.edu

**KATHY SAUNDERS**, Anthropology. Gendered aspects of technoscience, reproduction and kinship, cross-cultural sex and gender.

Kathleen.Saunders@wwu.edu

**RAE LYNN A. SCHWARTZ-DUPRE**, Communication. Rhetoric, mass media and postcolonial communication. Raelynn.Schwartz-DuPre@wwu.edu

**MICHAEL SLOUBER**, Liberal Studies. South Asia history and culture, gender and sexuality.

Michael.Slouber@wwu.edu

**TAMARA SPIRA**, Fairhaven/American Cultural Studies. Transnational, de-colonial, and critical race feminist theories and praxis; queer of color and transnational sexuality studies and feminist critiques of militarism, prisons, and empires.

Tamara.Spira@wwu.edu

**MIDORI TAKAGI**, Fairhaven College. Race, class and gender, comparative studies of women of color. Midori.Takagi@wwu.edu

**SHURLA THIBOU**, Women, Gender, and Sexuality Studies. Introduction to Women Studies, women and globalization. Shurla.Thibou@wwu.edu

**KATE TRUEBLOOD**, English. Women and literature, creative writing.

Kathryn.Trueblood@wwu.edu

**CHRIS VARGAS**, Art. Time-based art, queer radicalism, transgender history, and imperfect role models. Chris.Vargas@wwu.edu

**VERONICA N. VELEZ**, Education and Social Justice/Woodring and Fairhaven. Critical race theory and Latina/o critical theory in education, Chicana feminist epistemologies, politics of parent engagement in educational reform, particularly for Latina/o (im)migrant families, and participatory action and community-based models of research. Veronica.Velez@wwu.edu

**THERESA WARBURTON**, English. Contemporary women's literature, Native literature, women of color and indigenous feminisms, feminist theory, anarchist studies, social justice.

Theresa.Warburton@wwu.edu

**SARA WEIR**, Political Science. Social and health policy, women and politics, feminist political theory. chss.wwu.edu/political-science/political-science-faculty-sara-weir Sara.Weir@wwu.edu

**CHRISTOPHER WISE**, International Studies.

Colonization/Post colonization and expected gender roles. Christopher.Wise@wwu.edu

**GREG YOUMANS**, English. Film and media

studies, documentary and experimental cinema, LGBTQ history and historiography, and queer and feminist theory. Greg.Youmans@wwu.edu  
**KATHLEEN YOUNG**, Anthropology. Cross cultural

gender roles. faculty.wwu.edu/kyoung/  
Kathleen.Young@wwu.edu  
**SARAH ZIMMERMAN**, History. Africa, colonialism, women and gender. Sarah.Zimmerman@wwu.edu

## Minor

### Women, Gender, and Sexuality Studies Minor

Women, Gender, and Sexuality Studies program, College of Humanities and Social Sciences

#### 30 credits

#### Introduction

Western Washington University's Women, Gender, and Sexuality Studies program draws on interdisciplinary research and teaching to analyze the formation of sex, gender, and sexuality as they intersect with structures of power including, but not limited to, race, class, ethnicity, nationality, religion, age, and ability.

Women, Gender, and Sexuality Studies is committed to the project of social justice. We examine and challenge systems of oppression, inequality, and privilege from a variety of perspectives. Our program encourages theory and praxis that critically considers global and local communities in efforts to revise, re-envision, and reimagine social change.

The curriculum provides students with skills to critically and actively engage with the world around them. Many of our courses connect academia to the material world by investigating the relationship between theory and practice - a central commitment of much feminist, gender, and queer scholarship. Our courses are characterized by rigorous and sustained critical thinking, inquiry, and analysis: skills central to the task of enhancing equality, dignity, and empowerment.

#### Why Consider a Women, Gender, and Sexuality Studies Minor?

Drawing on the rich pool of academic expertise at Western, the program emphasizes theories and practices derived from feminist, queer, postcolonial, multiracial, and multicultural contexts. Our curriculum emphasizes scholarly engagement with a wide range of disciplines, including: history, fine and performing art, literature, creative writing, political science, communication studies, anthropology, sociology, psychology, environmental studies, visual culture, journalism, education, and science.

Students enjoy small class sizes and close faculty interaction. Our community is intellectually challenging, supportive, and creative. Our diverse faculty encourages scholarship that is interdisciplinary and intersectional. Individual concentrations and senior projects evolve along with students' intellectual and experiential growth and academic expertise.

#### Contact Information

##### Director of Women, Gender, and Sexuality Studies Minor

Dr. Vicki Hsueh  
Arntzen Hall 405 MS 9082  
360-650-2649  
Vicki.Hsueh@wwu.edu  
Office hours by appointment

##### Program Manager

Kim Kolb Ayre  
Environmental Studies 603 MS 9099  
360-650-3377  
KimKolb.Ayre@wwu.edu

#### Sample Careers

The Women, Gender, and Sexuality Studies program prepares students with a solid foundation to pursue careers in fields such as law, social service, counseling, public policy, health care, teaching, and the arts. We also give students a strong foundation for pursuing graduate work in women and gender studies, as well as in such disciplines as political science, communication studies, literature, journalism, history, cultural studies, law, education, policy, and social welfare.

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

# WOMEN, GENDER, AND SEXUALITY STUDIES

## How to Declare (Admission and Declaration Process):

Students who wish to declare a minor in Women, Gender, and Sexuality Studies are required to register with the Women, Gender, and Sexuality Studies office. For program advisement, contact Professor Hsueh, Arntzen Hall 405, 360-650-2649, Vicki.Hsueh@wwu.edu or Program Manager, Kim Kolb Ayre, Environmental Studies 603, 360-650-3377, KimKolb.Ayre@wwu.edu.

## Grade Requirements

Students are required to earn at least a C+ in courses counting towards the minor.

## Core Requirements (8-10 credits)

- WGSS 211 - Introduction to Women Studies \*\*\*\*
- WGSS 411 - Senior Project

## One Course From Each of the Following Areas (20-22 credits)

### Women, Gender, and Sexuality in History and Politics:

- FAIR 311C - Alternatives in Education
- FAIR 312E - Transgender Identities and Histories
- FAIR 313E - Queer Issues in Education \*\*
- FAIR 362F - We're Not for Sale: History of Asian Women in America
- FAIR 363B - Suzie Wong to Miss Saigon: Asian Presence in Hollywood
- HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History
- HIST 365 - History of Sexuality in the United States
- HIST 367 - US Women to 1865
- HIST 368 - US Women from 1865
- HIST 369 - Women, Gender, & Sexuality in African History
- HIST 421 - Gender in Early Modern Europe
- HIST 484 - Women in Japanese History
- HNRS 218 - Colloquium in Women, Gender, and Sexuality Studies \*\*\*
- PLSC 321 - Queer and Lesbian Gay Bisexual Transgender Politics
- PLSC 345 - Women and Politics
- PLSC 469 - Feminist Political Theory
- PLSC 493 - Issues in Political Theory \*
- WGSS 311 - American Women Studies: 1620-1850
- WGSS 313 - American Women Studies: 1850-Present
- WGSS 320 - Topics in Women, Gender, and Sexuality Studies \*\*\*

### Women, Gender, and Sexuality in Science and Society:

- AMST 203 - The Hispano/a-American Experience
- AMST 204 - The African-American Experience
- AMST 205 - The Asian-American Experience
- AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience
- AMST 301 - Comparative Cultural Studies
- AMST 314 - Contemporary Latino/A Issues
- AMST 315 - Contemporary American Indian Issues
- AMST 316 - Contemporary African American Issues
- ANTH 353 - Sex and Gender in Culture
- ANTH 424 - Medical Anthropology
- ANTH 453 - Women of the Global South
- ANTH 490 - Senior Seminar in Anthropology \*
- FAIR 313E - Queer Issues in Education \*\*
- FAIR 314E - Critical Pedagogy
- FAIR 338P - Cultural and Biological Perspectives on Pregnancy and Childbirth
- FAIR 341T - Awareness Through the Body II
- FAIR 342U - The Body Speaks: Culture and Eating Disorders

## WOMEN, GENDER, AND SEXUALITY STUDIES

FAIR 448T - Risk and Resilience in Adolescent Girls: Development, Culture and Identity  
FAIR 451X - Resistance Art of the Indigena  
HNRS 218 - Colloquium in Women, Gender, and Sexuality Studies \*\*\*  
PSY 116 - Human Sexuality  
PSY 119 - Psychology of Gender  
SOC 268 - Gender and Society  
SOC 338 - Sociology of Sexual Behavior  
SOC 354 - Domestic Violence and the Criminal Justice System  
SOC 360 - Marital and Family Interaction  
SOC 365 - Gender, Bodies, and Sports  
SOC 368 - Gender and Education  
WGSS 314 - Global Women  
WGSS 320 - Topics in Women, Gender, and Sexuality Studies \*\*\*

### Women, Gender, and Sexuality in Language and the Arts:

A/HI 438 - Art and Feminism  
COMM 230 - Rhetorical and Social Change \*  
COMM 240 - Media Studies  
COMM 260 - Communication, Identity and Difference  
COMM 360 - Communicating Masculinities  
COMM 416 - Topics in Communication \*  
COMM 440 - Issues in Media Studies  
ENG 227 - Gay, Lesbian, Bisexual and Transgender Literature  
ENG 309 - Seminar in Literature & Culture: The Long 18th Century \*  
ENG 310 - Seminar in Literature & Culture: The Long 19th Century \*  
ENG 311 - Seminar in Literature & Culture: The 20-21st Century \*  
ENG 331 - Studies in Gender Theory  
ENG 338 - Women and Literature in North America and Europe  
ENG 408 - Cultural Studies \*  
(Additional English courses in literature, film, media, and theory with a primary focus on women, gender, and/or sexuality may be used as an elective. Please consult with program advisor.)  
FREN 410 - Ecriture Feminine Francophone  
HNRS 218 - Colloquium in Women, Gender, and Sexuality Studies \*\*\*  
JOUR 375 - Diversity, Mass Media and Social Change  
THTR 428 - Topics in Theatrical Performance \*  
WGSS 212 - Feminist Theory and Expression  
WGSS 320 - Topics in Women, Gender, and Sexuality Studies \*\*\*  
WGSS 331 - Studies in Gender Theory

### Electives: 4 or more credits from any of the above areas

\* Topics in these courses are subject to change and may not in certain quarters be applicable to the Women, Gender, and Sexuality Studies minor. Please consult with the program director for advisement.  
\*\* FAIR 313E may only meet the requirement in one area.  
\*\*\* Application of this course to the three minor areas depends on course content. Please consult with the program director for advisement.  
\*\*\*\* HNRS 218 - 2nd Year Colloquium in Women, Gender, and Sexuality Studies can be substituted for WGSS 211 with program director permission.

### Additional information

Each academic year the women studies office compiles a list of all courses with a women, gender, and sexuality studies focus. Detailed descriptions of the above courses can be found in their respective department listings.

## Women, Gender, and Sexuality Studies Courses

### WGSS 211 - Introduction to Women Studies

Introduction to the issues, questions, conceptual frameworks and methods basic to a study of human societies, their institutions and cultural artifacts from a perspective that comprehends women's experience.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### WGSS 212 - Feminist Theory and Expression

This course will engage students in critical thinking, reading and writing about multicultural and global perspectives that women have developed from a feminist consciousness. Class material may include oral, written, and visual texts.

**Prerequisites & Notes:** ENG 101; 30 credits.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** CCOM

### WGSS 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### WGSS 311 - American Women Studies: 1620-1850

Women's role in American society from colonial times to the mid-19th century, with attention to differences of race and class. Emphasis on changing sex roles for both women and men as a result of changes in the structure of the family, immigration, urbanization, expansion of the frontier, education, religion, development of the nation and industrialization.

**Prerequisites & Notes:** HIST 103 or 104 or ENG 216 or other WGSS course.

**Credits:** 5

**Grade Mode:** Letter

### WGSS 313 - American Women Studies: 1850-Present

Factors influencing the female gender role as it changed in the last century and a half from the 'Cult of True Womanhood' to the 'New Woman' to the 'Feminine Mystique' to the 'Liberated Woman.' Emphasis on the impact of changing modes of American capitalism; women's efforts for equal rights and social reform; changing patterns of fertility; women's increased participation in the work force; changes in women's role in the domestic sphere.

**Prerequisites & Notes:** HIST 103 or 104 or ENG 216 or other WGSS course.

**Credits:** 5

**Grade Mode:** Letter

### WGSS 314 - Global Women

Introduces the concepts of transnational feminism. Examines the experiences of women in a global economy, explores the strategies women develop to resist global patriarchal structures, and to organize and mobilize globally.

**Prerequisites & Notes:** WGSS 211 or four credits of 300-level Women, Gender, and Sexuality Studies.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### WGSS 315 - Issues of Women's Movement

**Prerequisites & Notes:** PLSC 101, SOC 101 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### WGSS 320 - Topics in Women, Gender, and Sexuality Studies

Focus on special topics in women, gender, and sexuality studies. Readings and/or topic area to be determined by instructor. Repeatable up to 10 credits with different topics, including original course. May be taken only once for GUR credit.

**Prerequisites & Notes:** WGSS 211 or instructor permission

**Credits:** 3-5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### WGSS 331 - Studies in Gender Theory

This course will examine gender theory, with varying emphases, including but not limited to feminist, queer, trans, intersectional and critical race theory. Repeatable with different topics up to



10 credits including original course. Also offered as ENG 331.

**Prerequisites & Notes:** ENG 202 or WGSS 211

**Credits:** 5

**Grade Mode:** Letter

### **WGSS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **WGSS 411 - Senior Project**

Projects serve as a capstone experience for minors and majors in which students demonstrate their ability to apply knowledge of subject matter and methodology. Students are encouraged to develop interdisciplinary research or field projects that gives them opportunity to put into practice the theories and skills they have been learning during the course of their study. Students are encouraged to develop project internships with women's community organizations. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** Completion of Women, Gender, and Sexuality Studies core.

**Credits:** 1-6

**Grade Mode:** Letter

### **WGSS 453 - Women of the Global South**

Explores women's economic, religious, political and familial roles through topics such as development and globalization, violence, and women's movements. Student contributions to course topics emphasized through individual papers and group panel work. Also offered as ANTH 453.

**Prerequisites & Notes:** Fifteen credits of 300-level Anthropology or related discipline; WGSS 211; ANTH 353 highly recommended; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

# College of Science and Engineering

## Introduction

Dr. Catherine D. Clark, Dean

The College of Science and Engineering consists of seven academic departments: biology, chemistry, computer science, engineering technology, geology, mathematics, and physics/astronomy. In addition to the academic departments, the college is home to Western's Science, Mathematics, and Technology Education (SMATE) program and the Advanced Materials Science and Engineering Center (AMSEC). SMATE is dedicated to the enrichment and education of K-12 pre-service teachers and education reform. AMSEC's mission is to educate students and promote interdisciplinary research in materials science and to assist regional companies solve their materials related challenges. The college is committed to excellence in teaching, fostering interdisciplinary research and study opportunities, enhancing diversity, enhancing the quality of science, mathematics and technology K-12 teaching, and the development of critical thinking. Western has extensively invested in new facilities for the sciences in recent years (biology, chemistry, engineering technology, and SMATE). Additionally, the communications facility opened in the spring of 2004 and houses both the computer science department and the physics/astronomy department. Thus, students in the college are

engaged in high-quality classroom experiences that, when combined with laboratory experiences, foster a basic understanding of the scientific method and research methodologies. Students in the college are encouraged to participate in individual or team research projects with faculty members.

All the departments within the college are dedicated to providing a high-quality education for students by incorporating undergraduate research and practical laboratory-based experiences to stimulate intellectual curiosity, critical thinking abilities and application of the scientific method. Graduates from the college pursue graduate degrees, a wide variety of jobs in industry or governmental organizations, or become teachers. All of the graduates are expected to be excellent communicators and be vigorous throughout their lives in the active pursuit of knowledge.

Within the college, students will find a wide variety of majors and minors from which to choose, including many interdisciplinary majors or minors. Both bachelor's and master's degrees are offered. Graduates from many majors also seek certification in education. The College of Science and Engineering partners with the College of Humanities and Social Sciences to provide students with a liberal education. Graduates from the College of Science and Engineering are uniquely positioned, therefore, to contribute leading roles in their scientific, professional and technical lives in our increasingly complex world.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Applied Mathematics	BS
Biology	BA, BS, MS
Biology/Anthropology	BS
Biochemistry/Molecular and Cell Biology	BS
Biology/Mathematics	BS
Biochemistry	BS
Chemistry	BA, BS, MS
Chemistry/Biology	BAE
Chemistry/Mathematics	BAE
Chemistry/Physics	BAE
Computer Science	BS, MS
Computer and Information Systems Security	BS
Earth Science	BAE
Earth Science/General Science	BAE
Economics/Mathematics	BA
Electrical Engineering	BS
Electronics Engineering Technology	BS
General Science	BAE
Geology	BA, BS, MS
Geophysics	BS
Industrial Design	BS
Industrial Technology	BS
Manufacturing Engineering	BS
Manufacturing Engineering Technology	BS

Mathematics	BA, BAE, BS, MS
Mathematics/Computer Science	BS
Natural Science/Science Education	MEd
Physics	BS
Physics/Mathematics	BAE
Plastics and Composites Engineering	BS
Plastics Engineering Technology	BS
Statistics	BS

### Department Chairs

Dr. Merrill Peterson, Biology  
 Dr. James Vyvyan, Chemistry  
 Dr. Perry Fizzano, Computer Science  
 Dr. Jeffrey Newcomer, Engineering and Design  
 Dr. Bernard Housen, Geology  
 Dr. Tjalling Ypma, Mathematics  
 Dr. Andreas Riemann, Physics/Astronomy

### Majors and Minors

In addition to the General University Requirements (GURs) and other common degree requirements of the University, the candidate for a Bachelor of Arts or Bachelor of Science degree must complete a major area emphasis which is usually accompanied by supporting courses. A minor is optional. A few concentrations are offered which encompass both a major and a minor. Students will confer with appropriate departmental advisors to plan study programs. Transfer students are expected to complete at least a portion of their work in the major and minor fields in this institution.

### College Admission and Advisement

As the student completes the freshman year, which usually consists largely of courses that also meet the GURs, he or she is referred to the academic departments for continued personalized advisement in planning and selecting courses of study. Faculty within each department share responsibility for counseling students electing concentrations in their area. Faculty members may recommend to the department chair the waiving of certain course prerequisites (when it has been demonstrated that the student already has these competencies). Students who are undecided about a major may seek advisement through the Academic Advising Center in Old Main.

### Other College Information

#### Departments, Courses and Programs

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western,

students should consult the annual online Timetable of Classes, and Extended Education bulletins.

### Interdisciplinary Sciences, Technology and Mathematics (ISTM)

Courses containing scientific, technological and/or mathematical topics without focusing on a particular discipline are offered under the Interdisciplinary Science(s), Technology and Mathematics designation. Courses are designed for both science and non-science students. Faculty will come from across the College of Science and Engineering, and will offer a wide range of perspectives on the institutions, tools and practice of science, technology and mathematics. A new course on scientific literacy is an example of the type of course that will be offered with this new designation.

# Biology

## Introduction

Department website: [cse.wvu.edu/biology](http://cse.wvu.edu/biology)

The Biology Department offers a broad-based curriculum with the opportunity for undergraduates to explore specific areas of biology in depth through rigorous upper-division courses and participation in research, internships and independent study options. The department offers both Bachelor of Arts (BA) and Bachelor of Science (BS) degree programs and students may choose to become generalists or to specialize in one of 7 different emphases ranging from molecular biology to ecosystem ecology. Additionally, the biology department has developed several interdisciplinary program options in collaboration with the departments of Anthropology, Chemistry and Mathematics.

## Faculty

**MERRILL A. PETERSON** (1997) Chair and Professor. BS, University of Washington; PhD, Cornell University.

**DAVID S. LEAF** (1991) Associate Chair and Professor. BS, University of Washington; PhD, Indiana University.

**ALEJANDRO ACEVEDO-GUTIÉRREZ** (2002) Professor. BSc, Universidad Autónoma de Baja California Sur, Mexico; PhD, Texas A&M University.

**ROGER A. ANDERSON** (1994) Professor. BS, University of Minnesota; MA, University of California-Riverside; PhD, University of California-Los Angeles.

**MARION BRODHAGEN** (2006) Associate Professor. BS, University of Wisconsin; MS, PhD, Oregon State University.

**CAROLINE DAHLBERG** (2014) Assistant Professor. BS, Haverford College; PhD, University of Washington.

**ERIC DECHAINED** (2006) Associate Professor. BA, University of California-San Diego; MS, University of Hawaii-Manoa; PhD, University of Colorado-Boulder.

**DEBORAH A. DONOVAN** (1998) Professor. BSc, MSc, University of California-Davis; PhD, University of British Columbia.

**DAVID U. HOOPER** (1998) Professor. BA, Middlebury College; PhD, Stanford University.

**ROBIN KODNER** (2012) Assistant Professor. BS, University of Wisconsin; PhD, Harvard University

**SUZANNE LEE** (2015) Assistant Professor. BA, Wellesley College; PhD, University of California Berkeley.

**BENJAMIN MINER** (2006) Associate Professor. BA, University of Florida; PhD, University of California-Santa Cruz.

**CRAIG L. MOYER** (1997) Professor. BS, MS, Oregon State University; PhD, University of Hawaii.

**LYNN J. PILLITTERI** (2008) Assistant Professor. BS, State University of New York at Binghamton; MS, PhD, University of California, Riverside.

**DANIEL POLLARD** (2015) Assistant Professor. BA, Bowdoin College; PhD, University of California Berkeley.

**SANDRA SCHULZE** (2006) Associate Professor. BS, University of British Columbia; PhD, Simon Fraser University.

**DIETMAR SCHWARZ** (2008) Assistant Professor. Diplom Biology, Christian-Albrechts Universität, Kiel, Germany; PhD Pennsylvania State University.

**ANU SINGH-CUNDY** (1996) Associate Professor. BSc, MSc, Delhi University, Delhi, India; PhD, Cornell University.

**CAROL TRENT** (1989) Professor. BS, Indiana University; PhD, Massachusetts Institute of Technology.

**JEFF C. YOUNG** (1999) Professor. BA, PhD, Ohio State University.

## Affiliated Teaching Faculty

**GEORGIANNE CONNELL** (2004) Senior Instructor. BA, Seattle Pacific University; MS, Western Washington University.

**JANICE LAPSANSKY** (1985) Senior Instructor. BS, Seattle University; MS, Western Washington University.

**CARRIE SCHWARZ** (2008) Senior Instructor. BS, University of Maryland; MS, PhD, Pennsylvania State University.

**JOSÉ SERRANO-MORENO** (2007) Senior Instructor. BS, Universidad Central de Venezuela; MS, Venezuelan Institute of Scientific Research; PhD, Case Western Reserve University.

## Research Associates

**DAVID L. ALLES** BS, University of Colorado; MS, Western Washington University.

**JUDE APPLE** BS, Tufts University; MS, University of NC Wilmington; PhD, University of MD College Park.

**SHAWN ARELLANO** BS, University of Kansas; PhD, Oregon Institute of Marine Biology.

**JOHN BOWER** BS, PhD, Cornell University.

**MELISSA MINER** BS, University Of California-Santa Cruz; MS, University of California, Moss Landing Marine Lab.

**M BRADY OLSON** BS, University of Idaho; MS, Western Washington University; PhD, University of Washington.

**JENNIFER PURCELL** BS, MS, Stanford University; PhD, University of California-Santa Barbara.

**FREDERICK M. RHOADES** BA, Swarthmore; MS, Oregon State University; PhD, University of Oregon.

**SUZANNE STROM** BA, Middlebury College; MA,

Harvard University; PhD, University of Washington.  
**JENNIFER TENNESSEN** BS, MS, University of Wisconsin Madison; PhD, Penn State University.  
**KATHRYN L. VAN ALSTYNE** BS, University of Rhode Island; PhD, University of Washington.  
**BARRY WENDLING** BS, MS, Western Washington University.

### Departmental Mission

In support of Western Washington University and the College of Science and Engineering, the mission of the Biology Department is to provide an outstanding learning environment that integrates education, scholarship, and service in order to actively engage students in the biological sciences and to foster their development as lifelong learners. Successful graduates of our Department will understand fundamental biological principles in depth, will have laboratory and field skills to address biological questions, will have enhanced critical thinking and quantitative skills, will be able to communicate precisely and analytically in written and oral forms, and will be able to engage both independently and collaboratively as thoughtful and productive contributors to society.

We accomplish this mission by:

- Offering a broad-based, rigorous, and integrative curriculum
- Providing diverse upper-division courses that foster critical thinking and quantitative reasoning skills
- Offering opportunities for undergraduate research and writing
- Providing for timely completion of degree

### Other Departmental Information

#### Facilities and Resources

The 82,000 square-foot Biology Building features teaching labs, research labs, environmental control rooms, a seawater lab, image analysis labs, and multimedia lecture halls. The department also maintains two greenhouses on campus that supports teaching and research activities. The beautiful, nearby Cascade and Olympic mountains support a rich diversity of aquatic and terrestrial habitats that are frequently utilized for course and individual projects that focus on organismal or ecological aspects of biology. Additionally, our marine biology program is enriched through our affiliation with Western's Shannon Point Marine Center near Anacortes, Wash.

### Undergraduate Programs

Our Bachelor of Science curriculum is designed to (1) prepare undergraduates for graduate studies in diverse areas of biology; (2) prepare students for advanced study in the health professions [e.g., medicine, veterinary medicine, dentistry]; and (3) provide a broad exposure to biology for students who want a general science education as biologists and/or teachers. The Bachelor of Arts degree options in general biology and biology/anthropology are specifically designed to provide students with a foundation in biology that may be combined with another discipline.

- BA Biology
- BS Biology - General Emphasis
- BS Biology - Ecology, Evolution and Organismal Biology Emphasis
- BS Biology - Marine Emphasis
- BS Biology - Molecular and Cell Emphasis
- BS Biology - Secondary Teaching Emphasis
- BS Biology/Anthropology
- BA Biology/Anthropology
- BS Biology/Mathematics
- BAE Chemistry/Biology

### Declaration Process

To declare, students must contract the Biology Department and submit a major declaration request. For combined degree programs in biology/math and biology/anthropology, students must declare through the Biology Department.

The Biology Department has a two-step process for admission into our degree programs. Phase I students are those who have declared their intent to major in biology, and are in the process of completing the introductory courses in general chemistry and biology. Admission to Phase II is based on academic performance in the introductory courses (CHEM 121, 122, 123 and BIOL 204, 205, 206). Students must achieve an average GPA of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework. Students are encouraged to visit our website for more detailed information about the declaration process and the GPA requirement.

### Departmental Policies

All Biology courses (except independent study, research, teaching practicum, and graduate-level courses) will be part of Western's automatic waitlist system. The Biology Department does not actively manage waitlists for 100-level, and most

## BIOLOGY

200-level courses. Students who are on a waitlist will be offered seats on a "first in, first out" basis. Given the variability of enrollment needs across courses within our department, we reserve the right to manage course waitlists as summarized below. Application of this policy may change your position on the waitlist without advance notice. It is the student's responsibility to check their position on a course waitlist in order to make timely registration decisions.

**BIOL 204, 205 and 206** – Students (regardless of their major) who have been on the waitlist for the same course for two consecutive quarters will be given priority. Waitlists in these courses will be evaluated during registration and reprioritized without advance notice.

**Upper Division (300 and 400) Level Courses** – In courses where waitlist management is necessary, prioritization will be done primarily to expedite time to degree completion to accommodate students who are close to graduation. Students who have formally applied for graduation and who require a specific course as part of their degree plan, will be given the highest priority. It is the responsibility of the student to approach the Department as soon as possible for assistance if they are unable to get into a required course as specified on their approved graduation checklist. Additionally, students on the waitlist may be prioritized based on one or more of the following considerations: number of credits completed, declared major/degree requirements, and/or enrollment in the course for the first time.

**BIOL 348** – Due to unprecedented enrollment pressure, waitlists for BIOL 348 are heavily managed each quarter and qualified students are prioritized based on number of credits, (proximity to graduation). Further, students who are enrolled in the course but have completed BIOL 348 or its transfer equivalent with a C– or higher may be required to withdraw from the course in order to accommodate students who are enrolling for the first time AND who need the course to satisfy their major requirements.

### Failed Prerequisite Policy

## Bachelor of Arts

### Anthropology/Biology, BA (see Anthropology Department)

Anthropology/Biology, BA (see Anthropology Department)

The Biology Department enforces Western's campus-wide prerequisite policy. Students who are enrolled in a course but have failed to pass the prerequisite course with a C – or higher will be required to withdraw from the course immediately. Students who have failed prerequisites will be notified via email within a week after final grades are posted.

### Registration and Access to Biology Courses

Most lower-level biology courses are open to all students who have successfully met the prerequisites. All 300- and 400-level courses are major restricted and the restrictions vary widely by course. It is important to review the department's detailed registration information each quarter to fully understand the major restrictions that will be enforced and when it is appropriate to request an instructor override. For more information, students should review our Registration tab on our website ([cse.wvu.edu/biology/registration](http://cse.wvu.edu/biology/registration)).

### Teaching Careers in Biology

Students wishing to teach at the high school-level in the Washington State public schools need to seek advisement prior to or at the beginning of their third year of college. A Biology Endorsement is earned by completion of the courses in the Biology BS-Secondary Teaching Emphasis and the certification program in Woodring College of Education ([www.wce.wvu.edu/Resources/Certification/](http://www.wce.wvu.edu/Resources/Certification/)).

A Science Endorsement may be completed by taking the additional courses of GEOL 211, GEOL 212; and ASTR 315. All courses for the state teaching endorsement must be completed with a C (2.0) or higher. Students who wish to teach at the college-level complete a Biology BS or BA degree and continue graduate work leading to a master's or doctoral degree.

### Graduate Study

For concentrations leading to the Master of Education or the Master of Science degrees, see the Graduate School section of this catalog.

## Biology, BA

Department of Biology, College of Science and Engineering

**75-77 credits**

### Introduction

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The B.A. in Biology is designed for students who want to make biology the focus of a liberal arts education and are not directly interested in post-graduate study or professional careers in biology or teaching. The number of required courses in the B.A. Biology degree has been kept low to permit you to add other areas of study and courses suited to your needs and interests.

If you would like to pursue a Bachelor of Arts degree, you may wish to combine your interest in Biology with a focus of course work in areas such as History or Political Science. Other disciplines such as Art, English, Journalism, Sociology, Economics, Philosophy, Business, Physical Education, Psychology or Speech are also beneficial to you if pursuing a Bachelor of Arts in Biology.).

### Why Consider a Biology Major?

Are you interested in Biology but do not want a career in biology? Do you want a liberal arts education with a focus on Biology? Do you want to know all about the life that you see, hear, touch, taste and smell and how this affects us? Do you have interests in other scholastic areas as well? Consider a Bachelors of Arts in Biology!

#### Contact Information

##### Department Chair

Merrill Peterson  
Biology 315  
360-650-3636  
Merrill.Peterson@wwu.edu

##### Program Coordinators for Advising

Maren Brinson and Alexis Donnelly  
Biology 315  
360-650-6165  
biologyadvising@wwu.edu

#### Sample Careers

Lobbyist | Scientific Illustrator | Science Writer | Public Outreach | Nursing | Physician Assistant | Dental Assistant | Regulatory Affairs | Pathology Assistant | Biological Photographer | Laboratory Technician

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

### Grade Requirements

A grade of C- or better is required for a student's major courses.

# BIOLOGY

## Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 251 - Elementary Organic Chemistry
- MATH 240 - Introduction to Statistics or equivalent
- One course from:
  - PHYS 101 - Physics Analysis
  - OR
  - PHYS 114 - Principles of Physics I
- 18 credits of upper-division biology courses approved by a faculty advisor.

## Bachelor of Arts in Education

### Chemistry/Biology — Secondary, BAE (see Chemistry Department)

Chemistry/Biology - Secondary, BAE (see Chemistry Department)

## Bachelor of Science

### Biology — Ecology, Evolution, and Organismal Biology (EEO) Emphasis, BS

Department of Biology, College of Science and Engineering

#### 96-97 credits

#### Introduction

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The biology curriculum provides an effective combination of knowledge in areas that students can apply to many careers. The supporting courses for the Biology major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. Students select 300-level and 400-level specialty courses that focus on ecology, evolution, plant or animal biology. In these courses students not only pursue their interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing.

The integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and



laboratory courses in the B.S. Biology curriculum ultimately are critical for post-baccalaureate studies and future job performance. We expect that students who graduate with a B.S. or B.A. in Biology can apply their education to a variety of jobs across careers.

### Why Consider an Ecology, Evolution, and Organismal Biology Emphasis in the Biology Major?

This degree program focuses on the structure, function, ecology and evolution of organisms, with an emphasis on plants and animals. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – Ecology, Evolution and Organismal Biology Emphasis.

#### Contact Information

##### Department Chair

Merrill Peterson  
Biology 315  
360-650-3636  
Merrill.Peterson@wwu.edu

##### Program Coordinators for Advising

Maren Brinson and Alexis Donnelly  
Biology 315  
360-650-6165  
biologyadvising@wwu.edu

#### Sample Careers

Botanist | Conservation Biologist | Educator | Ecologist | Environmental Consultant | Evolutionary Biologist | Field Biologist | Laboratory Technician

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must have achieved an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status is required for admission into 300- and 400-level biology courses for biology majors.

### Grade Requirements

A grade of C- or better is required for a student's major courses.

### Requirements

#### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 340 - Biometrics
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry

## BIOLOGY

- CHEM 352 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics IIIOR
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

### Depth Requirements:

- One of the Following:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 326 - Ecology Laboratory
- Two additional upper-division lab (or lecture and lab) courses, including at least one 400-level course from the list of courses below. An additional lab course from these categories can be used to complete the lab requirements.
- Three courses (including required lecture and lab courses) chosen from the categories below, with at least one course from each category.

#### Ecological and Evolutionary Processes:

- BIOL 403 - Physiological Ecology of Animals
  - BIOL 405 - Microbial Ecology
  - BIOL 407 - Marine Ecology
  - BIOL 408 - Ecological Methods
  - BIOL 409 - Research Reptile Ecology
  - BIOL 410 - Animal Behavior
  - BIOL 416 - Ecosystem Ecology and Global Change
  - BIOL 424 - Applied Molecular Ecology
  - BIOL 433 - Quaternary Biogeography
  - BIOL 436 - Molecular Phylogeny and Microbial Diversity
  - BIOL 437B - Tropical Marine Ecology
  - BIOL 450 - Plant Anatomy
  - BIOL 467 - Comparative Vertebrate Physiology
  - BIOL 468 - Comparative Vertebrate Physiology Laboratory
  - BIOL 482 - Developmental Biology of Animals
- #### Taxon Diversity and Organismal Biology:
- BIOL 405 - Microbial Ecology
  - BIOL 436 - Molecular Phylogeny and Microbial Diversity
  - BIOL 437A - Tropical Marine Organismal Biology
  - BIOL 452 - Systematic Botany
  - BIOL 456 - Algae
  - BIOL 460 - Invertebrate Zoology
  - BIOL 462 - Entomology
  - BIOL 464 - Biology of Marine Mammals
  - BIOL 465 - Vertebrate Zoology
  - BIOL 467 - Comparative Vertebrate Physiology

### Electives:

0-4 credits to make 96-97 total. No more than 3 credit hours combined in BIOL 395, 496 and 498 can be applied to this category. Additional biology elective credits can be taken to fulfill University graduation requirements:

- Any 300 or 400-level biology course under advisement, including BIOL 300, 400, 444 and 497.
- ESCI courses under advisement.

## Biology — General Emphasis, BS

Department of Biology, College of Science and Engineering

**96-97 credits**

### Introduction

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The biology curriculum provides an effective combination of knowledge in areas that students can apply to many careers. The supporting courses for the Biology major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. In 400-level courses students not only pursue interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing.

The integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and laboratory courses in the B.S. Biology curriculum ultimately are critical for post-baccalaureate studies and future job performance. We expect that students who graduate with a B.S. or B.A. in Biology can apply their education to a variety of jobs across careers.

### Why Consider a General Emphasis in the Biology Major?

This degree program allows students to develop an upper-division curriculum tailored to meet their educational needs with the help of their faculty advisor. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – General Emphasis.

#### Contact Information

##### Department Chair

Merrill Peterson  
Biology 315  
360-650-3636  
merrill.peterson@wwu.edu

##### Program Coordinators for Advising

Maren Brinson and Alexis Donnelly  
Biology 315  
360-650-6165  
biologyadvising@wwu.edu

#### Sample Careers

Botanist | Ecologist | Biology Educator | Marine Scientist | Biotechnologist | Laboratory Technician | Physician Assistant | Pharmacist | Dentist | Medical Doctor

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

### Grade Requirements

A grade of C- or better is required for a student's major courses.

### Requirements

# BIOLOGY

## Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 340 - Biometrics
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

## Depth Requirements:

- One course from:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 326 - Ecology Laboratory
  - BIOL 346 - Microbiology Lab
  - BIOL 349 - Human Physiology
- Two additional upper-division lab (or lecture and lab) courses, including at least one 400-level course. Students must select courses with departmental advisement/approval. These courses may be applied to other requirements in the Biology - General Emphasis major.
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 326 - Ecology Laboratory
  - BIOL 346 - Microbiology Lab
  - BIOL 349 - Human Physiology
  - BIOL 403 - Physiological Ecology of Animals
  - BIOL 404 - Plant Ecology
  - BIOL 407 - Marine Ecology
  - BIOL 408 - Ecological Methods
  - BIOL 409 - Research Reptile Ecology
  - BIOL 450 - Plant Anatomy
  - BIOL 452 - Systematic Botany
  - BIOL 456 - Algae
  - BIOL 460 - Invertebrate Zoology
  - BIOL 462 - Entomology
  - BIOL 465 - Vertebrate Zoology
  - BIOL 468 - Comparative Vertebrate Physiology Laboratory

BIOL 479 - Plant Physiology  
 BIOL 484 - Cell Biology Laboratory  
 CHEM 474 - Biochemistry Laboratory

- 10 credit hours in selected 400-level courses excluding:
  - BIOL 432 - Evolutionary Biology
  - BIOL 494 - Biology Research
  - BIOL 495 - Research Communication
  - BIOL 496 - Professional Work Experience in Biology
  - BIOL 498 - Teaching Practicum

#### Electives:

4-7 credits to make 96-97. No more than 3 credit hours combined in BIOL 395, 496 and 498 and no more than 4 credit hours combined in BIOL 494 and 495 can be applied to this category. Additional biology elective credits can be taken to fulfill University graduation requirements:

- Any 300 or 400-level biology course under advisement.

## Biology — Marine Emphasis, BS

Department of Biology, College of Science and Engineering

### 100-101 Credits

#### Introduction

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The B.S. Biology – Marine Emphasis provides a thorough introduction to the basic areas of biology and supporting sciences while allowing specialization in marine biology. The supporting courses for the major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. Students select 300-level and 400-level specialty courses that focus on marine biology. In these courses students not only pursue their interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing.

The integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and laboratory courses in the B.S. Biology curriculum ultimately are critical for post-baccalaureate studies and future job performance. We expect that students who graduate with a B.S. or B.A. in Biology can apply their education to a variety of jobs across careers.

#### Why Consider a Marine Emphasis in the Biology Major?

Marine biology is the study of the structure and function of marine organisms and their relationship with the environment. This degree provides students with a solid foundation in all of the major sub-disciplines of biology with an emphasis on the biology of marine organisms and their environments. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – Marine Emphasis.

#### Contact Information

##### Department Chair

Merrill Peterson  
 Biology 315  
 360-650-3636  
 merrill.peterson@wwu.edu

##### Program Coordinators for Advising

Maren Brinson and Alexis Donnelly  
 Biology 315  
 360-650-6165  
 biologyadvising@wwu.edu

#### Sample Careers

# BIOLOGY

Marine Scientist | Fisheries Biologist | Ecologist | Conservation Biologist | Naturalist | Laboratory Technician | Educator

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

## Grade Requirements

A grade of C- or better is required for a student's major courses.

## Requirements

### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 340 - Biometrics
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry IIIor
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics IIIor
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

### Depth Requirements:

- ESCI 321 - Oceanography
- Three upper-division lab classes:
  - BIOL 326 - Ecology Laboratory

One lecture and lab course from the list of courses below

One additional 300- or 400-level lab (or lecture and lab) course

□ 13-15 credits from the following courses (includes the required lecture and lab courses chosen from this category):

- BIOL 324 - Methods in Molecular Biology
- BIOL 403 - Physiological Ecology of Animals
- BIOL 405 - Microbial Ecology
- BIOL 407 - Marine Ecology
- BIOL 437A - Tropical Marine Organismal Biology
- BIOL 437B - Tropical Marine Ecology
- BIOL 456 - Algae
- BIOL 460 - Invertebrate Zoology
- BIOL 464 - Biology of Marine Mammals

Electives:

1-3 credits to make 100-101 total.

Additional biology elective credits can be taken to fulfill University graduation requirements.

## Biology — Molecular and Cell Biology Emphasis, BS

Department of Biology, College of Science and Engineering

**100-106 credits**

### Introduction

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The B.S. degree in Molecular and Cell Biology places emphasis on the molecular biology and biochemistry of cell functions. The curriculum provides an effective combination of knowledge in areas that students can apply to many careers. Supporting courses in math, physics, and chemistry, along with the core biology curriculum at the 200-level and 300-levels fulfill the goals of a liberal arts education. In upper-level cell and molecular biology courses students pursue topics in more depth and develop the skills and abilities to pursue careers of their choosing.

The integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and laboratory courses in the Molecular and Cell Biology B.S. curriculum ultimately are critical for post-baccalaureate studies and for future job performance.

### Why Consider a Molecular and Cell Emphasis in the Biology Major?

Cell biology is the study of the structure of cells, the organelles they contain, physiological functions, life cycle, division and death, often studied at the biochemical or molecular level. Molecular biology investigates the interactions among DNA, RNA and protein synthesis within cells as well as understanding how these interactions are regulated using the tools and principles of genetics and bioinformatics gained from prokaryotic and eukaryotic model organisms. Molecular Biology is among the most rapidly growing fields within Biology with recent accomplishments such as the sequencing of the entire human genome.

#### Contact Information

##### Department Chair

Merrill Peterson  
Biology 315

##### Program Coordinators for Advising

Maren Brinson and Alexis Donnelly  
Biology 315

# BIOLOGY

360-650-3636  
merrill.peterson@wwu.edu

360-650-6165  
biologyadvising@wwu.edu

## Sample Careers

Biomedical Research | Pharmaceutical Research | Bioinformatics | Cell Physiology | Forensic Scientist | Genetic Counseling | Geneticist | Medical Doctor | Educator | Lab Technician

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology, and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

## Grade Requirements

A grade of C- or better is required for a student's major courses.

## Requirements

### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry IIIor
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- One course from:
  - MATH 240 - Introduction to Statistics
  - MATH 341 - Probability and Statistical Inference
  - BIOL 340 - Biometrics
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics IIIor
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III



## Depth Requirements:

- BIOL 324 - Methods in Molecular Biology
- BIOL 345 - Fundamentals of Microbiology
- CHEM 471 - Biochemistry I
- Choose two of the following:
  - BIOL 322 - Genetics Lab
  - BIOL 346 - Microbiology Lab
  - BIOL 484 - Cell Biology Laboratory
  - CHEM 474 - Biochemistry Laboratory
- Choose option A or option B or option C:
  - Option A:**
    - One of:
      - BIOL 451 - Developmental Biology of Plants
      - BIOL 482 - Developmental Biology of Animals
    - One of:
      - BIOL 470 - Functional Genomics
      - BIOL 473 - Molecular Biology
  - Option B:**
    - BIOL 470 - Functional Genomics AND
    - BIOL 473 - Molecular Biology
  - Option C:**
    - One of:
      - BIOL 470 - Functional Genomics
      - BIOL 473 - Molecular Biology
      - BIOL 482 - Developmental Biology of Animals
    - One of:
      - BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment (BIOL 486 cannot be combined with BIOL 482)
      - BIOL 497 - Offerings will vary from year to year; faculty advisor must approve selection of specific BIOL 497 course relevant to molecular and cell discipline.

## Electives:

3 credits to make 100-106 total. Additional biology elective credits can be taken to fulfill University graduation requirements:

- BIOL 325 - Ecology
- BIOL 424 - Applied Molecular Ecology
- BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment
- BIOL 395, 444, 494, 495, 496, 497, 498, and any other 400-level course listed under depth options
- CHEM 425I - Immunology
- CHEM 425T - Virology
- CHEM 472 - Biochemistry II
- Any 400-level chemistry course

**Biology — Secondary Teaching Emphasis, BS**

Department of Biology, College of Science and Engineering

**97-100 credits****Introduction**

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

## BIOLOGY

The broad biology curriculum for this major prepares students for a teaching endorsement in biology. The supporting courses for the major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. The depth courses for this major provide students with a broad background in biology that includes laboratory courses in genetics, molecular and organismal biology as well as a course that examines the relationship between science and society.

A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology and the area of emphasis.

Major requirements include 75-77 credits of foundational courses in biology, chemistry, physics and math, and 22-23 upper-division biology depth and elective credits. Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

To receive a recommendation for state of Washington certification, students must complete a professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion and teacher certification requirements for Woodring College of Education.

A Biology endorsement with a teaching certification will require taking SCED 481 and 491 after being admitted to Woodring College of Education. Students who elect to complete certification as an undergraduate while completing a Biology Bachelor of Science degree can count these two courses as electives for the BS. To receive a Science endorsement, take GEOL 211 and 212, and ASTR 315 in addition to the courses listed for the Biology endorsement.

### Why Consider a Secondary Teaching Emphasis in Biology Major?

The B.S. Biology – Secondary Teaching Emphasis will allow a student to become a secondary school teacher while giving her or him the flexibility to pursue any other career in biology or continue to post-baccalaureate studies. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – Secondary Teaching Emphasis.

Contact Information		
<b>Department Chair</b> Merrill Peterson Biology 315 360-650-3636 merrill.peterson@wwu.edu	<b>Program Coordinators for Advising</b> Maren Brinson and Alexis Donnelly Biology 315 360-650-6165 biologyadvising@wwu.edu	
<b>Biology-Education Advisor</b> Deborah Donovan Biology 310 360-650-7251 Deborah.Donovan@wwu.edu	<b>Biology-Education Advisor</b> Alejandro Acevedo-Gutierrez Biology 309 360-650-3653 Alejandro.Acevedo-Gutierrez@wwu.edu	<b>Secondary Education Website</b> wce.wwu.edu/sec/ secondary-education

### Sample Careers

Biology Teacher

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

### Grade Requirements

A grade of C- or better is required for a student's major courses. Science courses required for state teaching endorsements must be completed with a grade of C (2.0) or better.

## Requirements

### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 432 - Evolutionary Biology
- One course from:
  - BIOL 340 - Biometrics
  - MATH 240 - Introduction to Statistics
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - OR
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

### Depth Requirements:

- BIOL 326 - Ecology Laboratory
- One course from:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
- One of the following:
  - BIOL 460 - Invertebrate Zoology
  - BIOL 465 - Vertebrate Zoology
  - BIOL 467 - Comparative Vertebrate Physiology AND
  - BIOL 468 - Comparative Vertebrate Physiology Laboratory
  - BIOL 482 - Developmental Biology of Animals AND
  - BIOL 484 - Cell Biology Laboratory
- One of the following:
  - BIOL 450 - Plant Anatomy
  - BIOL 451 - Developmental Biology of Plants
  - BIOL 452 - Systematic Botany
  - BIOL 479 - Plant Physiology
- SCED 370 - Science and Society

# BIOLOGY

## Electives:

0-2 credits to make 97-100 total (75-77 credits of basic requirements plus 22-23 upper-division biology depth and elective credits). Additional elective credits can be taken to fulfill University graduation requirements.

□ Upper-division courses under advisement, including:

SCED 481 - Fundamentals of Teaching Science

SCED 491 - Methods in Secondary Education for Science Teachers (see comments above)

## Biology/Anthropology, BS

Combined major offered by the Department of Biology, College of Science and Engineering and the Department of Anthropology, College of Humanities and Social Sciences.

### 103-106 Credits

### Introduction

Biological or Physical Anthropology is the study of both present and past human variation relative to local ecologies and cultures. Biological Anthropologists specialize in human or primate anatomy, disease ecology, growth and development, forensic anthropology and osteology, medical anthropology, primate behavior, and paleoanthropology.

Biology, the scientific study of living things, includes a broad spectrum of fascinating fields. Cell and molecular biology, developmental genetics, systematics and evolution, botany, zoology, marine biology, microbial ecology, plant and animal ecology, physiological and behavioral ecology and science education are some of the specialties of study that students can pursue with the Biology faculty at Western.

### Why Consider a Biology/Anthropology Major?

The Biology/Anthropology major concentrates on human biology and behavioral science. This major is most useful for those continuing on in applied health careers such as: Medicine, Osteopathy, Optometry, Dentistry, etc. It is also useful for Epidemiology, public health and graduate programs in Human Biology and Biological Anthropology.

#### Contact Information

#### Anthropology Program Advisor Anthropology Program Advisor Program Coordinators for Advising

Joan Stevenson

MJ Mosher

Maren Brinson and Alexis Donnelly

Arntzen Hall 316

Arntzen Hall 324

Biology 315

360-650-4787

360-650-3614

360-650-6165

Joan.Stevenson@wwu.edu

M.J.Mosher@wwu.edu

biologyadvising@wwu.edu

#### Biology Program Advisor

Jose Serrano-Moreno

Biology 331

360-650-3633

Jose.Serrano-Moreno@wwu.edu

#### Sample Careers

Medical Doctor | Physician's Assistant | Applied Health Professions | Museum Conservator | Forensic Anthropologist | Biological Anthropologist | Epidemiology and Public Health

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average

grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

### Grade Requirements

A grade of C- or better is required for a student's major courses.

### Requirements

#### Basic Requirements:

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- One course from:
  - BIOL 325 - Ecology
  - ANTH 350 - The Ecology of Human Variation
- One course from:
  - BIOL 340 - Biometrics
  - ANTH 335 - Quantitative Methods in Anthropology
- One course from:
  - BIOL 432 - Evolutionary Biology
  - ANTH 423 - Human Evolution
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose from:
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - OR
  - CHEM 251 - Elementary Organic Chemistry (only with advisor's approval)
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
  - MATH 138 - Accelerated Calculus
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - OR
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

#### Depth requirements:

- BIOL 348 - Human Anatomy and Physiology
- One course from:
  - BIOL 349 - Human Physiology

## BIOLOGY

BIOL 467 - Comparative Vertebrate Physiology

One of the following:

ANTH 308 - Hunter-Gatherer Societies in World Prehistory

ANTH 422 - Nutritional Anthropology

ANTH 424 - Medical Anthropology

BIOL 410 - Animal Behavior

Completion requirement:

ANTH 496 - Portfolio Assembly

Electives:

3-12 credits to make 103-106 total.

One course from:

BIOL 322 - Genetics Lab

BIOL 324 - Methods in Molecular Biology

BIOL 323 - Cell and Molecular Biology

BIOL 345 - Fundamentals of Microbiology

BIOL 410 - Animal Behavior

BIOL 465 - Vertebrate Zoology

BIOL 467 - Comparative Vertebrate Physiology

ANTH 308 - Hunter-Gatherer Societies in World Prehistory

ANTH 422 - Nutritional Anthropology

ANTH 424 - Medical Anthropology

Other electives under advisement

## Biology/Mathematics, BS

Combined major offered by the Department of Biology, College of Science and Engineering and the Department of Mathematics, College of Science and Engineering.

**111-112 credits**

### Introduction

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The biology curriculum provides an effective combination of knowledge in areas that students can apply to many careers. The supporting courses for the Biology major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. In 400-level courses students not only pursue interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing.

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." -From Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

## Why Consider a Biology/Mathematics Major?

Biology is an increasingly quantitative discipline, requiring mathematical models to understand complex biological phenomena, and computationally-intensive algorithms to analyze the massive datasets generated by genomics. More than ever, employers in fields such as bioengineering, theoretical biology, ecology, and molecular biology are seeking to hire people equipped to handle the quantitative rigors of modern biology. The Biology/Mathematics B.S. degree enables students to develop a strong background in biology along with a broadly applicable understanding of quantitative and computational approaches to problem-solving, giving graduates from this program a unique and highly sought set of skills.

### Contact Information

#### Biology Department Chair

Merrill Peterson  
Biology 315  
360-650-3636  
merrill.peterson@wwu.edu

#### Mathematics Department Chair

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

#### Program Coordinators for Advising

Maren Brinson and Alexis Donnelly  
Biology 315  
360-650-6165  
biologyadvising@wwu.edu

#### Mathematics Department

Bond Hall 202  
360-650-3785  
Math.Department@wwu.edu

### Sample Careers

Populations Researcher | Biostatistician | Research Analyst | Bioinformatics Scientist | Education | Research Scientist in many areas of Biology including Genetics and Genomics

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status required for admission into 300- and 400-level biology courses.

## Grade Requirements

A grade of C- or better is required for a student's major courses.

## Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 432 - Evolutionary Biology
- CHEM 251 - Elementary Organic Chemistry
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - OR
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - OR
  - MATH 138 - Accelerated Calculus

## BIOLOGY

- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential EquationsOR
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 341 - Probability and Statistical Inference
- MATH 342 - Statistical Methods I
- MATH 415 - Mathematical Biology
- NOTE:** MATH 432 can substitute for MATH 415
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- One course from:
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
  - MATH 307 - Mathematical Computing
- 8 credits of approved upper-division electives from biology, math, or math/computer science
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry IIIOR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors

## Master of Science

### Biology, Marine and Estuarine Science, Thesis, MS

Department of Biology, College of Science and Engineering

#### Graduate Faculty

**Acevedo-Gutierrez, Alejandro**, PhD, marine vertebrate ecology.  
**Anderson, Roger A.**, PhD, vertebrate behavioral and physiological ecology.  
**Donovan, Deborah A.**, PhD, marine invertebrate physiological ecology.  
**Kodner, Robin**, PhD, quantitative marine biology  
**Miner, Benjamin G.**, PhD, marine invertebrate ecology and evolution.  
**Moyer, Craig L.**, PhD, evolutionary molecular microbiology.

Program Advisor: Dr. Benjamin Miner

Curriculum Coordinators: Dr. Brian Bingham and Dr. John Rybczyk, Huxley College of the Environment; Dr. Benjamin Miner and Dr. Deb Donovan, Department of Biology.

For a complete list of participating faculty and their research interests, and for additional information, visit the MESP website.

The Marine and Estuarine Science option is a joint offering of the Department of Biology, Huxley College, and Shannon Point Marine Center. Students graduating from the program will have an understanding of coastal marine and estuarine environments, biota and topical management issues, and fundamental biological and chemical oceanographic processes.



## Goals

To offer a first-class research experience for our students that will provide them with the background and skills to enter a variety of professional careers in biology. We aim to provide a stimulating intellectual environment with rigorous scholarship that facilitates multiple opportunities for graduate students.

## Prerequisites

A bachelor's degree and departmental permission. Deficiencies in undergraduate courses or those subsequently revealed to the Biology Graduate Committee or to the student's program committee must be corrected prior to advancement to candidacy. Applicants are directed to the current requirements of the basic BS degree in biology for a summary of expected preparation for graduate work. All students should have completed upper-division courses in genetics, cell biology, ecology and biometrics, and supporting introductory course work in organismal biology.

## Application Information

**Admit Quarter:** Fall quarter only; spring quarter by petition.

**Deadline:** The deadline for priority consideration is February 1 for fall quarter. See Graduate School deadlines for other quarters.

**TA Deadline:** The deadline for applying for a teaching assistantship is February 1.

**Required Test:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

**Supporting Materials:** Application with \$100 fee; three recent letters of reference; one set of transcripts from every college/university attended; written description of background and research interests, including an indication of three potential faculty advisors.

## Program Requirements

At least 45 total combined credits from the following areas:

### Requirements in Specialization

- BIOL 501 - Fundamentals of Biological Research (3 credits)
- BIOL 505 - Current Research in Science (1-2 credits)
- BIOL 525 - Research Mentorship (4 credits)
- BIOL 598 - Essentials of Biology Graduate Studies (2 credits)
- BIOL 690 - Thesis Research (12-36 credits)

### Electives

- Courses selected under advisement from 400- and 500-level courses in biology and supporting disciplines. No more than 10 credits may come from 400-level courses. All elective courses must be approved by the student's program committee (14-23).

### Thesis and Examination

Degree candidates will submit a thesis based on independent and original research on a problem approved by the student's thesis committee. A final oral exam will be conducted by the advisory committee. Degree candidates will present a department seminar based on the results of the thesis research.

## Biology, Thesis, MS

Department of Biology, College of Science and Engineering

# BIOLOGY

## Graduate Faculty

**Acevedo-Gutierrez, Alejandro**, PhD, marine vertebrate ecology.  
**Anderson, Roger A.**, PhD, vertebrate behavioral and physiological ecology.  
**Brodhagen, Marion**, PhD, chemical ecology, plant-microbe interactions.  
**Dahlberg, Lina**, PhD, molecular and cellular biology.  
**DeChaine, Eric**, PhD, evolution and ecology of alpine and arctic flora.  
**Donovan, Deborah A.**, PhD, marine invertebrate physiological ecology.  
**Hooper, David U.**, PhD, ecosystem ecology and plant community ecology.  
**Leaf, David S.**, PhD, cell and developmental biology.  
**Lee, Suzanne**, PhD, cellular and molecular biology.  
**Kodner, Robin**, PhD, quantitative marine biology.  
**Miner, Benjamin G.**, PhD, marine invertebrate ecology and evolution.  
**Moyer, Craig L.**, PhD, evolutionary molecular microbiology.  
**Peterson, Merrill A.**, PhD, insect ecology and evolutionary biology.  
**Pillitteri, Lynn**, PhD, eukaryotic cell and molecular biology.  
**Pollard, Daniel**, PhD, quantitative genetics.  
**Schulze, Sandra**, PhD, chromatin structure and nuclear organization.  
**Schwarz, Dietmar**, PhD, ecological genetics.  
**Singh-Cundy, Anu**, PhD, plant developmental biology.  
**Trent, Carol**, PhD, molecular and developmental genetics.  
**Young, Jeff C.**, PhD, plant genetics.

Program Advisor: Dr. Benjamin Miner

## Goals

To offer a first-class research experience for our students that will provide them with the background and skills to enter a variety of professional careers in biology. We aim to provide a stimulating intellectual environment with rigorous scholarship that facilitates multiple opportunities for graduate students.

## Prerequisites

A bachelor's degree and departmental permission. Deficiencies in undergraduate courses or those subsequently revealed to the Biology Graduate Committee or to the student's program committee must be corrected prior to advancement to candidacy. Applicants are directed to the current requirements of the basic BS degree in biology for a summary of expected preparation for graduate work. All students should have completed upper-division courses in genetics, cell biology, ecology and biometrics, and supporting introductory course work in organismal biology.

## Application Information

**Admit Quarters:** Fall quarter only; spring quarter by petition.

**Deadline:** The deadline for priority consideration is February 1 for fall quarter. See Graduate School deadlines for other quarters.

**TA Deadline:** The deadline for applying for a teaching assistantship is February 1.

**Required Test:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

**Supporting Materials:** Application with \$100 fee; three recent letters of reference; one set of transcripts from every college/university attended; written description of background and research interests, including an indication of potential faculty advisors.

## Program Requirements

At least 45 total combined credits from the following areas:

## Requirements in Specialization

- BIOL 501 - Fundamentals of Biological Research (3 credits)
- BIOL 525 - Research Mentorship (4 credits)
- BIOL 598 - Essentials of Biology Graduate Studies (2 credits)
- BIOL 690 - Thesis Research (12-36 credits)

## Electives

- Courses selected under advisement from 400- and 500-level courses in biology and supporting disciplines. No more than 10 credits may come from 400-level courses. All elective courses must be approved by the student's program committee (15-24).

## Thesis and Examination

Degree candidates will submit a thesis based on independent and original research on a problem approved by the student's thesis committee. A final oral exam will be conducted by the advisory committee. Degree candidates will present a seminar based on the results of the thesis research.

# Minor

## Biology Minor

Department of Biology, College of Science and Engineering

### 44 Credits

### Introduction

Biology is the study of living organisms. As scientists, biologists have three prime motivations: (1) intellectual curiosity about biological systems, (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth, and (3) the confidence that research into the history of life on earth and how biological systems work can be used to solve problems faced by our society today. Thus, we intend for our intensive academic program to stimulate our student's curiosity and appetite for life-long learning about biology.

#### Contact Information

##### Department Chair

Merrill Peterson  
Biology 315  
360-650-3636  
merrill.peterson@wwu.edu

##### Program Coordinators for Advising

Maren Brinson and Alexis Donnelly  
Biology 315  
360-650-6165  
biologyadvising@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students must be eligible for Phase II status before they may declare a minor in biology. Admission to Phase II requires that a student have a minimum gpa of 2.9 in the introductory chemistry and biology courses (CHEM 121, 122, 123 and BIOL 204, 205 and 206). To declare, please see the declaration process section above or visit the department's website.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# BIOLOGY

## Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry IIIOr
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- 15 credits of upper-level courses
  - Any upper-level biology course, with the exception of BIOL 348, 349, 395, 444, 494, 495, 496 or 498, can be used to fulfill this requirement.
  - Up to 6 upper-division credits may overlap and be applied to both the biology minor and the student's major degree requirements.

## Biology Courses

### BIOL 101 - Introduction to Biology

Major ideas and processes of modern biological science at molecular, cellular, organismic and community levels; stressing qualitative and quantitative dimensions of the discipline in lecture, laboratory, field and discussion settings. Lab included. Intended for non-science majors.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### BIOL 102 - Biological Diversity: Evolution and Systems

A consideration of biodiversity; adaptations and life cycles of plants and animals; organismal biology; science as a way of knowing; the relevance of the above-mentioned topics for the educated citizen. Lecture, discussion, field and lab included.

**Prerequisites & Notes:** BIOL 101

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### BIOL 110 - Marine Habitat Diversity

Exploration of the biological and physical properties of the diverse marine habitats characteristic of Salish Sea environments, including eelgrass and other soft-sediment sites, the rocky intertidal, the plankton and deep-sea sites. Habitats will be studied with respect to their physical properties, the impacts on them of factors such as tides and exposure, typical biota, and oceanographic processes that characterize them. Instruction will include lectures, laboratory

exercises, field trips and group projects.

**Prerequisites & Notes:** Admission to the Marine Science Scholars Program.

**Credits:** 4

**Grade Mode:** Letter

### BIOL 111 - Current Topics in Marine Science I

Current topics in marine science assigned by instructor each quarter. Typical topics may include harmful algal blooms, invasive species, ocean acidification, climate change, and fisheries or mariculture. Repeatable with different topics up to a maximum of 2 credits, including original course.

**Prerequisites & Notes:** Admission to the Marine Science Scholars Program.

**Credits:** 1

**Grade Mode:** Letter

### BIOL 112 - Current Topics in Marine Science II

Current topics in marine science assigned by instructor each quarter. Typical topics may include harmful algal blooms, invasive species, ocean acidification, climate change, and fisheries or mariculture. Repeatable with different topics up to a maximum of 3 credits, including original course.

**Prerequisites & Notes:** Admission to the Marine Science Scholars Program.

**Credits:** 1

**Grade Mode:** Letter

### BIOL 140 - The Ecology and Economics of Salmon Recovery

Focus on the 4 causes of salmon decline (Habitat, Hydropower, Harvest, and Hatcheries) to investigate the interactions between ecology and

economics through lectures, reading and independent projects. Also offered as ECON 140.

**Prerequisites & Notes:** MATH 112 or equivalent General Math Placement test score.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SCI

### **BIOL 195 - Introduction to Marine Biology**

A field-based introduction to marine biology for entering first-year students. S/U grading.

**Credits:** 2

**Grade Mode:** S/U

### **BIOL 204 - Introduction to Evolution, Ecology and Biodiversity**

Introduction to evolutionary and ecological processes involved in the generation of our planet's biodiversity, including review of patterns and processes that influence the origin, evolution, distribution, and abundance of living things. Includes lab.

**Prerequisites & Notes:** CHEM 121 or CHEM 125 or concurrent.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### **BIOL 205 - Introduction to Cellular and Molecular Biology**

Structure and function of biomolecules and cells, membrane structure and function, photosynthesis and respiration, molecular origin of life, phylogenetic and metabolic diversity of prokaryotes, molecular genetics and genomics. Includes lab.

**Prerequisites & Notes:** BIOL 204; CHEM 121 or CHEM 125; CHEM 122 or CHEM 126 or concurrent.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### **BIOL 206 - Introduction to Organismal Biology**

Study of the many ways that eukaryotic organisms perform basic functions and cope with varying environmental conditions. Phylogenetic organismal diversity and organ system structural and functional diversity will be studied in lecture and laboratory.

**Prerequisites & Notes:** BIOL 205; CHEM 122 or CHEM 126; CHEM 123 or CHEM 225 or concurrent.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### **BIOL 245 - Microbiology for Health Sciences**

General microbiology with an emphasis on health related issues. Students will learn aseptic technique in lab and the characteristics of microbes that affect human health. Credits earned in this course cannot be applied towards a Biology degree.

**Prerequisites & Notes:** BIOL 101, or BIOL 204 and BIOL 205

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **BIOL 321 - Genetics**

Survey of classical genetics, molecular genetics and genomics in prokaryotic and eukaryotic organisms.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206

**Credits:** 4

**Grade Mode:** Letter

### **BIOL 322 - Genetics Lab**

Uses prokaryotic and eukaryotic model organisms to explore the fundamentals of genetics and the use of genetics as a tool for basic research. Includes lecture.

**Prerequisites & Notes:** BIOL 321.

**Credits:** 4

**Grade Mode:** Letter

### **BIOL 323 - Cell and Molecular Biology**

Cell structure and function. Topics include: protein structure and function, gene regulation, cell cycle, signal transduction, and organelle assembly and function.

**Prerequisites & Notes:** CHEM 351 and CHEM 352 (may be taken concurrently); OR CHEM 251.

# BIOLOGY

**Credits:** 4

**Grade Mode:** Letter

## **BIOL 324 - Methods in Molecular Biology**

An introduction to widely used molecular biology techniques and laboratory skills.

**Prerequisites & Notes:** BIOL 321 or BIOL 323

**Credits:** 3

**Grade Mode:** Letter

## **BIOL 325 - Ecology**

Organismal-environmental relationships in marine, fresh water and terrestrial habitats. Functions and development of ecosystems.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206

**Credits:** 3

**Grade Mode:** Letter

## **BIOL 326 - Ecology Laboratory**

Introduction to ecological research, culminating in student-designed research projects. Written and oral presentation of projects.

**Prerequisites & Notes:** BIOL 325 or concurrent; or ESCI 325.

**Credits:** 3

**Grade Mode:** Letter

## **BIOL 340 - Biometrics**

The design of biological experiments and appropriate statistical analysis of experimental data.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

## **BIOL 345 - Fundamentals of Microbiology**

Cell structure, metabolism, evolution and ecology of prokaryotes.

**Prerequisites & Notes:** BIOL 205, CHEM 251 or CHEM 351

**Credits:** 3

**Grade Mode:** Letter

## **BIOL 346 - Microbiology Lab**

Techniques of general microbiology, including isolation, culture, enumeration and identification of prokaryotes.

**Prerequisites & Notes:** BIOL 205; CHEM 351 or

CHEM 251; BIOL 345 or concurrent.

**Credits:** 2

**Grade Mode:** Letter

## **BIOL 348 - Human Anatomy and Physiology**

Macroscopic and histological examination of human anatomical systems, and study of general neuromuscular and cardiopulmonary functions. Includes lab. Credits earned in this course cannot be applied towards a BA or BS in Biology, except for the BA and BS in Biology/Anthropology.

**Prerequisites & Notes:** BIOL 101 or BIOL 205

**Credits:** 5

**Grade Mode:** Letter

## **BIOL 349 - Human Physiology**

A comprehensive introduction to the study of integrated functions of cells, organs and organ systems in humans.

**Prerequisites & Notes:** BIOL 348 or BIOL 206; CHEM 121 or CHEM 125

**Credits:** 5

**Grade Mode:** Letter

## **BIOL 395 - Biology Research Participation**

Participation in biology research under the direction of a biology professor. The experience may include assisting in the maintenance of experimental setup, data collection, data entry, literature searches, and developing graphics. Repeatable up to 6 credits, including original course.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1-4

**Grade Mode:** S/U

## **BIOL 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **BIOL 402 - Wetland Identification and Delineation**

This course introduces materials and methods used to identify and delineate jurisdictional wetlands under the Army Corps of Engineers (Corps) 1987 Wetlands Delineation Manual and Corps Regional

Supplements and is intended for anyone who is interested in wetland delineation such as biology or environmental science majors, land use planners, civil and environmental engineers, and biological/environmental consultants. Students learn how to identify and delineate jurisdictional wetlands and understand and identify field indicators of hydrophytic vegetation, hydric soils, and wetland hydrology, as well as methods for disturbed and atypical wetlands, and recognizing difficult wetland situations as defined by the Corps, through lectures and "hands-on" field instruction. Skills learned in this course are applicable nationwide and satisfy requirements for basic wetland training as specified by the Corps

**Prerequisites & Notes:** BIOL 325 or ESCI 325.

**Credits:** 4

**Grade Mode:** Letter

### **BIOL 403 - Physiological Ecology of Animals**

Physiological and biochemical adaptations of animals to environmental factors. Marine environments are emphasized, but adaptations to fresh water and terrestrial conditions also are considered. Laboratories introduce research techniques which are then applied in student-designed independent research projects.

**Prerequisites & Notes:** BIOL 206; and BIOL 325 or ESCI 325; or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 404 - Plant Ecology**

Ecology of plant communities, interpretation of vegetation patterns, and plant ecophysiology.

**Prerequisites & Notes:** BIOL 206, BIOL 325, BIOL 326

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 405 - Microbial Ecology**

Study of microbial communities in aquatic and terrestrial environments, with emphasis on the functional role of microbes in energy flow, nutrient cycling and element transformation. Overview of microbial interactions with eukaryotic hosts. Discussion of structure, genetics, and community on microbial communities. Offered in alternate years.

**Prerequisites & Notes:** BIOL 325 and BIOL 345 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **BIOL 407 - Marine Ecology**

The structure and function of marine ecosystems with an emphasis on processes in shallow-water and benthic habitats. Investigative field and laboratory studies of local marine and estuarine systems.

**Prerequisites & Notes:** BIOL 325; BIOL 326; BIOL 340 or concurrent OR ESCI 340 or concurrent; ESCI 321 or concurrent or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 408 - Ecological Methods**

Students will learn instrumentation and methodology for field research, and practice it in a field setting. Specifically, students will perform comparative investigations of three meso-habitats by measuring ecologically relevant parameters, such as spatiotemporal variation in microclimate or vegetation, and terrestrial invertebrate abundance and diversity.

**Prerequisites & Notes:** BIOL 325 or ESCI 325; Co-requisite BIOL 409

**Credits:** 6

**Grade Mode:** Letter

### **BIOL 409 - Research Reptile Ecology**

Field research will focus on developing knowledge and understanding of the population, behavioral, and physiological ecology of reptiles.

Observational-comparative and experimental methods will be learned. Data collected in BIOL 408 will be analyzed, interpreted, and prepared for publication.

**Prerequisites & Notes:** BIOL 325 or ESCI 325. Co-requisite BIOL 408.

**Credits:** 6

**Grade Mode:** Letter

### **BIOL 410 - Animal Behavior**

Investigation of the component processes and adaptive functions of animal behavior in an ecological and evolutionary context, and an introduction to the questions asked, hypotheses proposed and methods used in the study of animal behavior. Offered in alternate years.

**Prerequisites & Notes:** BIOL 206; BIOL 325 or ESCI 325; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **BIOL 416 - Ecosystem Ecology and Global Change**

Investigation of the factors controlling whole

## BIOLOGY

ecosystem processes such as productivity, decomposition, and nutrient cycling. Application of these concepts to current issues in global change, including the carbon cycle and global warming, land use change, nitrogen-loading, and biodiversity and ecosystem function. Lectures and textbook reading are integrated with discussion of papers from the primary literature.

**Prerequisites & Notes:** BIOL 325 or ESCI 325; BIOL 326 recommended.  
**Credits:** 4  
**Grade Mode:** Letter

### **BIOL 424 - Applied Molecular Ecology**

This class provides a practical introduction to how genetic methods can be used to address problems in ecology and evolution. As an applied course this class will stress general concepts of population genetics, phylogenetics, and comparative genomics via the use of quantitative tools in practical exercises while putting less emphasis on the theoretical details underlying these tools.

**Prerequisites & Notes:** BIOL 321  
**Credits:** 3  
**Grade Mode:** Letter

### **BIOL 432 - Evolutionary Biology**

Principles, patterns, processes and mechanisms of evolution.

**Prerequisites & Notes:** BIOL 321  
**Credits:** 4  
**Grade Mode:** Letter

### **BIOL 433 - Quaternary Biogeography**

This course examines the impact that climatic changes during the past 2 million years had on the distribution of biological diversity, with an emphasis on the flora and fauna of the Pacific Northwest.

**Prerequisites & Notes:** BIOL 325 or ESCI 325.  
**Credits:** 3  
**Grade Mode:** Letter

### **BIOL 436 - Molecular Phylogeny and Microbial Diversity**

Explore the ramifications of the recent revolutionary discoveries in microbial diversity, the reconstruction of evolutionary discoveries in history at both molecular and organismal levels and the implications of the origins of life on prokaryotic evolution. Emphasis on applications of phylogenetic theories and methods to the understanding and 'modeling' of the evolutionary progression of life. Multiple phylogenetic

reconstruction algorithms will be closely examined and scrutinized. Offered alternate years.

**Prerequisites & Notes:** BIOL 345, BIOL 346  
**Credits:** 5  
**Grade Mode:** Letter

### **BIOL 444 - Seminar Series Participation**

The Biology Department Seminar Series provides opportunities for undergraduate students to learn about the latest developments in key fields of biological research. Students will be required to attend seminars and provide a written synopsis of each presentation.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206  
**Credits:** 1  
**Grade Mode:** S/U

### **BIOL 450 - Plant Anatomy**

Structure of the plant body, from cellular to whole plant level, including developmental and ecological aspects. Offered alternate years.

**Prerequisites & Notes:** BIOL 206  
**Credits:** 5  
**Grade Mode:** Letter

### **BIOL 451 - Developmental Biology of Plants**

An examination of the molecular basis of plant development and the applied uses of recent discoveries on crop improvement strategies. Emphasis on discussion of primary literature. Offered alternate years.

**Prerequisites & Notes:** BIOL 323  
**Credits:** 3  
**Grade Mode:** Letter

### **BIOL 452 - Systematic Botany**

Taxonomy of higher plants with emphasis on the characteristics and phylogeny of flowering plant families; collection and identification of local species.

**Prerequisites & Notes:** BIOL 206  
**Credits:** 5  
**Grade Mode:** Letter

### **BIOL 456 - Algae**

Physiology and ecology of macroalgae and phytoplankton including identification, collection and culture of major algal groups. Laboratory focus on research techniques which are then applied in student independent projects.



**Prerequisites & Notes:** BIOL 206; 5 credits of 300 level science coursework or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 460 - Invertebrate Zoology**

Evolutionary relationships of invertebrate animals, including anatomy, physiology, classification, development and ecology.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 462 - Entomology**

The biology of insects, emphasizing their ecology and evolution, as well as comparative anatomy, physiology, and development. Laboratory exercises will focus on community studies and insect identification.

**Prerequisites & Notes:** BIOL 206

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 464 - Biology of Marine Mammals**

Examination of the evolution, physiology, ecology and conservation of marine mammals through critical thinking and discussion of the primary literature. Offered in alternate years.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206. Recommended: ESCI 321.

**Credits:** 4

**Grade Mode:** Letter

### **BIOL 465 - Vertebrate Zoology**

Investigations of vertebrate phylogenies; analyses of the biogeographic and ecological patterns of spatiotemporal distribution of many vertebrate taxa; examinations of the principal adaptive features that uniquely define each major vertebrate taxon. Offered alternate years.

**Prerequisites & Notes:** BIOL 206; and BIOL 325 or ESCI 325; or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 467 - Comparative Vertebrate Physiology**

Examination of the physiological functions of organ systems in each of the major vertebrate classes, with systems of taxa compared in evolutionary and ecological contexts.

**Prerequisites & Notes:** BIOL 206

**Credits:** 3

**Grade Mode:** Letter

### **BIOL 468 - Comparative Vertebrate Physiology Laboratory**

Design and implement laboratory research on some aspect of whole-animal performance physiology.

**Prerequisites & Notes:** BIOL 206; BIOL 467 or concurrent.

**Credits:** 3

**Grade Mode:** Letter

### **BIOL 470 - Functional Genomics**

Examines the development and application of genome-based experimental approaches in biology.

**Prerequisites & Notes:** BIOL 321, BIOL 323

**Credits:** 3

**Grade Mode:** Letter

### **BIOL 473 - Molecular Biology**

An examination of the structure, replication and expression of genetic information. Also offered as CHEM 473.

**Prerequisites & Notes:** BIOL 321 or BIOL 323; CHEM 471.

**Credits:** 3

**Grade Mode:** Letter

### **BIOL 476 - Structure and Physiology of Membrane Transport Proteins**

Examination of the structure of membrane transport proteins and their role in physiological processes through presentation and critical discussion of primary literature. Offered in alternate years.

**Prerequisites & Notes:** BIOL 323; CHEM 471 recommended.

**Credits:** 3

**Grade Mode:** Letter

### **BIOL 479 - Plant Physiology**

Basic principles of physiology including cell structure and function, plant-soil-water relationships, absorption and translocation of materials, transpiration, photosynthesis, respiration, mineral nutrition, growth and development, hormonal regulation.

**Prerequisites & Notes:** BIOL 206; CHEM 351 and CHEM 352, or CHEM 251

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**Credits:** 5

**Grade Mode:** Letter

## **BIOL 482 - Developmental Biology of Animals**

An examination of the molecular, cellular and genetic aspects of developmental biology in invertebrate and vertebrate model systems: fruitflies, nematodes, sea urchins, frogs and mammals.

**Prerequisites & Notes:** BIOL 321 and BIOL 323

**Credits:** 4

**Grade Mode:** Letter

## **BIOL 484 - Cell Biology Laboratory**

Laboratory investigations of cellular and developmental processes. Tissue culture methods and microscopy techniques, including immunofluorescence. Lectures will focus on optics and image processing.

**Prerequisites & Notes:** BIOL 323

**Credits:** 5

**Grade Mode:** Letter

## **BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment**

Molecular analysis of developmental processes controlling the formation of functional neural circuits. Emphasis placed on critical evaluation and discussion of primary literature.

**Prerequisites & Notes:** BIOL 321 and BIOL 323.

**Credits:** 3

**Grade Mode:** Letter

## **BIOL 494 - Biology Research**

Individual or collaborative research, including design and implementation of a research project, working under the tutelage of a biology professor. Repeatable to a maximum of 8 credits including original course.

**Prerequisites & Notes:** Phase II in biology and permission of instructor; completion of department course agreement form.

**Credits:** 1-5

**Grade Mode:** Letter

## **BIOL 495 - Research Communication**

Analysis and written and/or oral presentation of results of individual scientific research. Communication can be in the form of a full scientific paper, a poster, or an oral presentation. Number of credits is dependent on the form of communication. Repeatable to a maximum of 6 credits including original course.

**Prerequisites & Notes:** BIOL 494; phase II in Biology and permission of instructor.

**Credits:** 1-4

**Grade Mode:** Letter

## **BIOL 496 - Professional Work Experience in Biology**

Full- or part-time work with a cooperating agency or firm. Written reports required. Repeatable to a maximum of 8 cr. S/U grading.

**Prerequisites & Notes:** Phase II in Biology and permission of instructor.

**Credits:** 1-5

**Grade Mode:** S/U

## **BIOL 498 - Teaching Practicum**

Classroom experience in biology teaching. Students will assist faculty in the laboratory and lecture settings. Repeatable to a maximum of 4 cr. S/U grading.

**Prerequisites & Notes:** Phase II in Biology and permission of instructor.

**Credits:** 1-4

**Grade Mode:** S/U

## **BIOL 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **BIOL 501 - Fundamentals of Biological Research**

Introduction to developing and writing research proposals, obtaining funding, and conducting research in the Biological Sciences.

**Prerequisites & Notes:** Graduate status in Biology or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

## **BIOL 505 - Current Research in Science**

Presentation and discussion of research expertise of University faculty participating in science graduate programs. Repeatable to a maximum of 2 cr. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1  
**Grade Mode:** S/U

### **BIOL 508 - Advanced Topics in Marine Biology**

Analysis and discussion of current literature on selected topics in marine and estuarine biology. Examples of topics include symbiosis, intertidal community dynamics and marine microbiology. Repeatable with different topics.

**Prerequisites & Notes:** 25 credits in biology and permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### **BIOL 513 - Physiological Ecology of Animals**

Physiological and biochemical adaptations of animals to environmental factors. Emphasizes marine environments, but adaptations to freshwater and terrestrial environments conditions are also considered. Labs introduce research techniques which are applied in student-designed independent research projects.

**Prerequisites & Notes:** BIOL 206, BIOL 325; or introductory courses in zoology and ecology.

**Credits:** 5  
**Grade Mode:** Letter

### **BIOL 516 - Advanced Ecosystem Ecology and Global Change**

Investigates the factors controlling whole ecosystem processes. Application of these concepts to current issues in global change, including the carbon cycle and global warming, land-use change, nitrogen load, and biodiversity and ecosystem functioning.

**Prerequisites & Notes:** BIOL 325 or ESCI 325 or equivalent; BIOL 326 recommended

**Credits:** 4  
**Grade Mode:** Letter

### **BIOL 524 - Applied Molecular Ecology**

This class provides a practical introduction to how genetic methods can be used to address problems in ecology and evolution. As an applied course this class will stress general concepts of population genetics, phylogenetics, and comparative genomics via the use of qualitative tools in practical exercises while putting less emphasis on the theoretical details underlying these tools.

**Prerequisites & Notes:** Background in genetics and ecology.

**Credits:** 3  
**Grade Mode:** Letter

### **BIOL 525 - Research Mentorship**

Part of the core curriculum for all Biology MS students. This course provides an overview of research methods in biology and guidance for developing a research program. Through this seminar-style course, students will discuss research methods and how to trouble shoot research problems across the discipline. Offered Winter and Spring only, required of 1st and 2nd year students in each quarter, for 4 credits total. S/U grading.

**Prerequisites & Notes:** Admission to MS program in biology or interdisciplinary graduate program involving biology.

**Credits:** 1  
**Grade Mode:** S/U

### **BIOL 533 - Advanced Quaternary Biogeography**

This course examines the impact that climatic changes during the past 2 million years had on the distribution of biological diversity, with an emphasis on the flora and fauna of the Pacific Northwest.

**Prerequisites & Notes:** Background in Ecology.

**Credits:** 3  
**Grade Mode:** Letter

### **BIOL 551 - Developmental Biol Plants**

An examination of the molecular basis of plant development and the applied uses of recent discoveries on crop improvement strategies. Emphasis on discussion of primary literature. Offered alternate years.

**Prerequisites & Notes:** Background in cellular and molecular biology.

**Credits:** 3  
**Grade Mode:** Letter

### **BIOL 576 - Structural Basis of Membrane Transport Proteins**

This course will examine the general structural basis of membrane transport proteins; studying their mechanistic information, examining the actual body plans and structure of these proteins and evaluating the structure-function relationship that permits them to perform their task. The overall goal of this course is to acquire a unifying view of membrane transport mechanisms. Offered in alternate years.

**Prerequisites & Notes:** Graduate status. BIOL 323 or equivalent; background in biochemistry recommended.

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**Credits:** 3

**Grade Mode:** Letter

### **BIOL 586 - Topics in Molecular Mechanisms of Neurodevelopment**

Molecular analysis of developmental processes controlling the formation of functional neural circuits. Emphasis placed on critical evaluation and discussion of primary literature.

**Prerequisites & Notes:** Graduate standing; BIOL 321 and BIOL 323; or background in cell biology and genetics.

**Credits:** 3

**Grade Mode:** Letter

### **BIOL 594 - Cell Biology Laboratory**

Laboratory investigations of cellular processes. Tissue culture methods and microscopy techniques, including immunofluorescence. Lectures will focus on optics and image processing.

**Prerequisites & Notes:** Graduate standing and permission of instructor; BIOL 323 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **BIOL 595 - Developmental Biology**

An examination of the molecular, cellular and genetic aspects of developmental biology in invertebrate and vertebrate model systems: fruitflies, nematodes, sea urchins, frogs and mammals.

**Prerequisites & Notes:** 25 credits in biology and permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **BIOL 598 - Essentials of Biology Graduate Studies**

An overview of departmental resources, guidelines for navigating the Biology MS in a timely fashion, with workshops for developing skills in teaching and giving presentations in the biological sciences. Fall quarter of the first year only. Required of all first-year Biology MS students. Not repeatable. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 2

**Grade Mode:** S/U

### **BIOL 599 - Ecological Morphology**

Selected problems in biology, with emphasis on current literature. Repeatable.

**Prerequisites & Notes:** 40 credits in biology

**Credits:** 2

**Grade Mode:** Letter

### **BIOL 690 - Thesis Research**

Research contributing to a graduate degree program. Graded 'K' until thesis completed. Repeatable up to 36 credits. S/U grading.

**Prerequisites & Notes:** Permission of thesis advisor.

**Credits:** 1-12

**Grade Mode:** S/U

# Chemistry

## Introduction

[cse.wvu.edu/chemistry](http://cse.wvu.edu/chemistry)

The Department of Chemistry offers undergraduate degree programs in chemistry and biochemistry. American Chemical Society certification is available to BS graduates in chemistry. The WWU chemistry and biochemistry program is recognized as one of the finest in the country and is focused on supporting our students and ensuring their success in their chosen careers. The Department of Chemistry — in addition to its core of fundamental studies in analytical, biochemistry, inorganic, organic, and physical chemistry — has added a variety of elective courses that offer diversity in training, study and research at both the undergraduate and graduate levels. Within the department, faculty members are active in many research areas, including biofuels, protein engineering, computer modeling, catalysis, nanomaterials, materials for solar cells, electrochemistry, polymers, thin films, protein structural analysis by nuclear magnetic resonance and x-ray crystallography, and organic synthesis. Detailed explanations of the current research areas of the faculty can be found on the department website ([cse.wvu.edu/chemistry](http://cse.wvu.edu/chemistry)).

Every effort is made to continually update and modernize course work and teaching methods. The department maintains state-of-the-art instrumentation for both teaching and research activities. Students gain experience in modern analytical methods through hands-on use of the instrumentation. Faculty members have authored successful textbooks and computer-assisted instructional materials that have found wide usage at major universities. Western's graduates have a long and enviable record of success in PhD programs at major research universities and in a variety of medical, dental and pharmacy programs.

## Faculty

Department faculty all hold the PhD degree, and most have had postdoctoral experience before coming to Western. The department supports an active undergraduate research program, and students are encouraged to undertake a research project early in their studies.

There is a high degree of personal contact between faculty and students in the department. Supporting students is a core mission of the department, and faculty and department staff members assist with academic and career counseling.

**SPENCER J. ANTHONY-CAHILL** (1997) Chair and Professor. BA, Whitman College; PhD, University of California-Berkeley.

**JOHN ANTOS** (2012) Assistant Professor. BS, Ohio State University; PhD, University of California

**ROBERT BERGER** (2013) Assistant Professor. A.B. Chemistry, Princeton University; PhD, Cornell University.

**EMILY J. BORDA** (2005) Associate Professor. BS, Gonzaga University; MEd, PhD, University of Washington.

**MARK E. BUSSELL** (1990) Professor. BA, Reed College; PhD, University of California-Berkeley.

**STEVEN R. EMORY** (2001) Associate Professor. BS, California Lutheran University; PhD, Indiana University.

**JOHN D. GILBERTSON** (2008) Associate Professor. BA, Augustana College; MS, PhD, University of Oregon.

**TIM KOWALCZYK** (2014) Assistant Professor. BS, University of Southern California; PhD, Massachusetts Institute of Technology.

**JANELLE LEGER** (2009) Associate Professor. BS, University of California at Davis; PhD, University of California at Santa Cruz.

**MARC MUNIZ** (2015) Assistant Professor. BS, Montclair State University; PhD, North Carolina State University.

**AMANDA MURPHY** (2010) Assistant Professor. BS and BA, Western Washington University; PhD, University of California-Berkeley.

**GREGORY W. O'NEIL** (2008) Associate Professor. BS, Boston College; PhD University of Colorado-Boulder.

**DAVID L. PATRICK** (1996) Professor. BS, University of California-Davis; PhD, University of Utah.

**GERRY A. PRODY** (1984) Associate Professor. BS, PhD, University of California-Davis.

**DAVID RIDER** (2010) Assistant Professor. BS, Simon Fraser University, PhD, University of Toronto.

**MARGARET SCHEUERMANN** (2015) Assistant Professor. BA, Scripps College; MS, PhD, University of Washington.

**SERGE SMIRNOV** (2008) Associate Professor. BS, MS, Moscow Institute of Physics & Technology; PhD, State University of New York at Stony Brook.

**P. CLINT SPIEGEL** (2007) Associate Professor. BS, Oregon State University; PhD, University of Washington.

**JAMES R. VYVYAN** (1997) Professor. BS, University of Wisconsin-Eau Claire; PhD, University of Minnesota

## Departmental Honors

A chemistry department major who wishes to graduate with honors in chemistry must complete a one-year program of research, culminating in CHEM 498. The student must also maintain a 3.50 cumulative grade point average, submit a senior

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thesis and present a public seminar describing the research topic and results. Criteria for candidacy for departmental honors are 1) a minimum grade point average of 3.50 at the conclusion of the penultimate year and 2) acceptance for admission to the program by the chemistry department. Students who are in the University Honors Program must also satisfy these departmental requirements.

### Other Departmental Information

#### Programs and Career Opportunities

The programs of study offered by the chemistry department are diverse and challenging, and provide the following benefits to the student:

- A wide variety of programs, designed to meet diverse career goals
- A faculty committed to excellence in undergraduate education and research
- Close student-faculty contact and relatively small classes
- Direct access to modern laboratory equipment and instrumentation
- Opportunity for research under the direction of a faculty advisor

The chemistry department offers three basic degree programs: Bachelor of Science, Bachelor of Arts and Bachelor of Arts in Education. All three programs have a common core of study:

- One year of general chemistry and one year of college-level calculus
- One year of organic chemistry, one year of college physics and one quarter of analytical chemistry
- One year of physical chemistry

This provides the foundation for elective courses in the student's area of interest. Through choice of degree programs and electives, the student can prepare for careers in industry or government, teaching at the secondary level or further study at the graduate level.

Students planning to major in chemistry or biochemistry or to begin university transfer programs involving chemistry courses are advised to consult the department during the first year to arrange for the proper sequence of courses.

Students planning to transfer to Western after completing two years of college study elsewhere should complete the following program requirements prior to transfer in order to avoid delays in degree work completion. Please be advised, at least 50 percent of required major credits must be obtained at WWU:

- One year of general chemistry
- One year of college-level calculus
- One year of calculus-based college-level physics

**Bachelor of Science.** The department offers BS programs in chemistry and biochemistry. These are specifically designed for students interested in graduate study or careers in industry and government as laboratory scientists.

**Bachelor of Arts.** This program provides less intensive training in chemistry but, when combined with a minor in a related area, prepares students for health professions, including medical school, and a variety of career opportunities in fields such as chemical sales and marketing, computational science, science writing (journalism), environmental sciences, or secondary school teaching.

**Bachelor of Arts in Education.** This program provides several program emphases (chemistry-biology, chemistry-mathematics, and chemistry-physics). Although requirements within these options differ in detail, the three programs are similar enough that the prospective teacher need not choose among them until the sophomore or junior year. Successful graduates are qualified to teach in their areas of concentration at the middle school or high school level. Prospective teachers with qualifications in more than one area will have a distinct advantage in seeking such positions. Detailed descriptions of each of these degree programs and course descriptions are given below.

## Bachelor of Arts

### Chemistry, BA

Department of Chemistry, College of Science and Engineering

**81-94 credits**

#### Introduction

The Department of Chemistry, in addition to its core of fundamental studies in Analytical, Biochemistry, Inorganic, Organic and Physical chemistry, has added a variety of elective courses that offer diversity in training, study and research at the undergraduate level. Within the Department, faculty members are active in many research areas including biofuels, protein engineering, computer modeling, catalysis, nanomaterials, materials for solar cells, electrochemistry, polymers, thin films, protein structural analysis by nuclear magnetic resonance and x-ray crystallography, and organic synthesis.

### Why Consider a Chemistry Major?

The programs of study within the Chemistry major provide many benefits to students. There are a wide variety of programs that are designed to meet diverse career goals. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

#### Contact Information

##### Chemistry Department Chair

Spencer Anthony-Cahill  
Chemistry Building 270A  
360-650-3152  
Spencer.Anthony-Cahill@wwu.edu

##### Pre-Major Advisor & Program Coordinator

Stacey Maxwell  
Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

#### Sample Careers

Chemical/Pharmaceutical Sales | Physician | Crime Lab Analyst | High School Teacher | Industrial Chemist | Technical Writing | Forensic Scientist | Quality Assurance Specialist | Research Scientist | Occupational Safety Specialist | Science Lab Technician | Biotechnology Scientist | College Professor | Environmental Scientist/Consultant

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission to the Bachelor of Arts major in chemistry is selective and based upon preparation and prior academic performance. Application may be made through the chemistry department, Chemistry Building 270. Admission to the BA-Chemistry major will be in two phases. Students will be designated Phase I majors until they have completed CHEM 121, CHEM 122, CHEM 123, CHEM 351 and CHEM 352. Students will then be considered for advancement to Phase II based on their performance in Phase I. Students with a grade point average of 2.5 or higher in the Phase I courses will be given preferential admission to Phase II. Students with a grade point average below 2.5 will be considered on a case by case basis for remaining spaces in the major. Note that neither completion of the prerequisites nor attainment of any specific GPA guarantees admission to Phase II. See the department's website for more details.

Students planning on careers as high school teachers must take SCED 370, SCED 481 and SCED 491 to earn an endorsement in chemistry, plus the secondary education program in addition to the Bachelor of Arts degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Because certification to teach high school now requires more than four years, advisement prior to the beginning of the third year is absolutely necessary to avoid lengthening the program. Students also are strongly advised to complete requirements for a broad area science endorsement by taking BIOL 204, BIOL 205, BIOL 206 and GEOL 211, GEOL 212 and ASTR 103 or ASTR 315.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or above.

#### Requirements

- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I

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- CHEM 355 - Organic Chemistry Laboratory II
- CHEM 434 - Instrumental Analysis
- CHEM 436 - Instrumental Analysis Lab
- CHEM 441 - Advanced Inorganic Chemistry
- CHEM 461 - Physical Chemistry
- CHEM 462 - Physical Chemistry
- CHEM 463 - Physical Chemistry
- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- Choose either:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical ChemistryOR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - CHEM 375 - Elements of BiochemistryOR
  - CHEM 471 - Biochemistry I
  - CHEM 472 - Biochemistry II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry IIOR
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II HonorsOR
  - MATH 138 - Accelerated Calculus

## Bachelor of Arts in Education

### Chemistry/Biology — Secondary, BAE

Combined major offered by the Department of Biology, College of Science and Engineering and the Department of Chemistry, College of Science and Engineering

**104-109 credits**

#### Introduction

The Department of Chemistry, in addition to its core of fundamental studies in Analytical, Biochemistry, Inorganic, Organic and Physical chemistry, has added a variety of elective courses that offer diversity in training, study and research at the undergraduate level. Within the Department, faculty members are active in many research areas including biofuels, protein engineering, computer modeling, catalysis, nanomaterials, materials for solar cells, electrochemistry, polymers, thin films, protein structural analysis by nuclear magnetic resonance and x-ray crystallography, and organic synthesis.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.



## Why Consider a Chemistry/Biology-Secondary Major?

The programs of study within the Chemistry major provide many benefits to students. There are a wide variety of programs that are designed to meet diverse career goals. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

Contact Information		
<b>Chemistry Department Chair</b> Spencer Anthony-Cahill Chemistry Building 270A 360-650-3152 Spencer.Anthony-Cahill@wwu.edu	<b>Chemistry Program Coordinator</b> Stacey Maxwell Chemistry Building 270 360-650-3070 chemdept@chem.wwu.edu	<b>Biology Education Advisor</b> Deborah Donovan Biology 310 360-650-7251 Deborah.Donovan@wwu.edu
<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 wce.wwu.edu/admissions/secondary-education	<b>Secondary Education Professional Program Information Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3347 Janna.Cecka@wwu.edu	<b>Secondary Education Program Coordinator</b> Christina Carlson Miller Hall 401A 360-650-3327 Christina.Carlson@wwu.edu

### Sample Careers

High School Chemistry/Biology Teacher

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology, and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

This major must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

As certification to teach high school now requires more than four years of study, advisement prior to or at the beginning of the third year is absolutely necessary to avoid lengthening the program.

## Grade Requirements

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

## Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 326 - Ecology Laboratory
- BIOL 432 - Evolutionary Biology
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry

## CHEMISTRY

- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- CHEM 471 - Biochemistry I
- CHEM 472 - Biochemistry II
- CHEM 474 - Biochemistry Laboratory
- One course from:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical ChemistryOR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics IIIOR
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Chemistry/Mathematics — Secondary, BAE

Combined major offered by the Department of Chemistry, College of Science and Engineering and the Department of Mathematics, College of Science and Engineering

**103-121 credits plus supporting courses in physics**

## Introduction

The program of study for the chemistry/mathematics majors provides many benefits to students, such as close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

## Why Consider a Mathematics-Secondary in Chemistry Major?

Teaching mathematics and chemistry is a challenge, a responsibility, and an opportunity. Learning to teach mathematics and chemistry occurs through a variety of means: the study of a wide variety of mathematics and chemistry, pedagogical preparation within a mathematical and science context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in mathematics and chemistry.

Everyone aspiring to be a mathematics and chemistry teacher is aware of the demand for qualified teachers at the secondary level, but there is an even greater need for quality mathematics and chemistry teachers—teachers who care about students, mathematics and chemistry teachers who have a broad and deep understanding of mathematics and chemistry and teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective teacher you need to focus on expanding your personal understanding of mathematics and chemistry and capitalizing on opportunities to work with pre-college students as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship.

Contact Information		
<b>Chemistry Department Chair</b> Spencer Anthony-Cahill Chemistry Building 270A 360-650-3152 Spencer.Anthony-Cahill@wwu.edu	<b>Chemistry Program Coordinator</b> Stacey Maxwell Chemistry Building 270 360-650-3070 chemdept@chem.wwu.edu	<b>Math Department</b> Bond Hall 202 360-650-3785 mathdept@wwu.edu <a href="http://www.wwu.edu/depts/math">http://www.wwu.edu/depts/math</a>
<b>Math Department Advisor</b> Jessica Cohen Bond Hall 180 360-650-3830	<b>Secondary Education Professional Program Information Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3347 Janna.Cecka@wwu.edu	<b>Secondary Education Program Coordinator</b> Christina Carlson Miller Hall 401A 360-650-3327 Christina.Carlson@wwu.edu

### Sample Careers

Secondary Education Teacher

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Chemistry Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in chemistry, and are in the process of completing the general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.5 or higher in their introductory

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biology and general chemistry series and organic chemistry I & II courses before they can advance to Phase II and begin taking upper-division coursework.

This major must be accompanied by the professional education program in secondary education. This major meets the requirements for Washington state teaching endorsements in both chemistry and mathematics. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

As certification to teach high school now requires more than four years of study, advisement prior to or at the beginning of the third year is absolutely necessary to avoid lengthening the program.

### Grade Requirements

Recommendation for teaching endorsement normally requires completion of the following major with a grade point of 2.50 or better in the required major courses.

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

### Requirements

- CHEM 461 - Physical Chemistry
- CHEM 462 - Physical Chemistry
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 134 - Calculus I Honors and
- MATH 135 - Calculus II Honors
- OR
- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra and
  - MATH 331 - Ordinary Differential Equations
- OR
- MATH 203 - Linear Algebra and Differential Equations I and
- MATH 303 - Linear Algebra and Differential Equations II
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
- OR
- CHEM 125 - General Chemistry I, Honors
- CHEM 126 - General Chemistry II, Honors
- CHEM 225 - General Chemistry III, Honors
- Option A or B:
  - Option A:
    - CHEM 251 - Elementary Organic Chemistry

CHEM 375 - Elements of Biochemistry

Option B:

Choose one of the following series:

CHEM 351 - Organic Chemistry

CHEM 352 - Organic Chemistry

CHEM 353 - Organic Chemistry

CHEM 354 - Organic Chemistry Laboratory I

And either:

CHEM 375 - Elements of Biochemistry

OR

CHEM 471 - Biochemistry I

CHEM 472 - Biochemistry II

CHEM 473 - Molecular Biology

At least two of the following:

MATH 307 - Mathematical Computing

MATH 341 - Probability and Statistical Inference

MATH 410 - Mathematical Modeling

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Chemistry/Physics – Secondary, BAE

Combined major offered by the Department of Chemistry, College of Science and Engineering and the Department of Physics, College of Science and Engineering

**94-114 credits**

#### Introduction

The Chemistry major provides many benefits to students. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

Physics is the fundamental science. It is the study of matter and energy and of the interaction between the two. Astronomy, Biology, Chemistry, Geology and Engineering apply the principles of Physics to specific problems. Almost all areas of modern technology involve applications of Physics.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

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## Why Consider a Chemistry/Physics-Secondary Major?

The Department of Chemistry, in addition to its core of fundamental studies in Analytical, Biochemistry, Inorganic, Organic and Physical chemistry, has added a variety of elective courses that offer diversity in training, study and research at the undergraduate level.

The study of Physics provides an excellent liberal arts foundation and can open a variety of doors for jobs, including Secondary Education.

### Contact Information

**Chemistry Department Chair**

Spencer Anthony-Cahill  
Chemistry Building 270A  
360-650-3152  
Spencer.Anthony-Cahill@wwu.edu

**Physics Department**

Communications Facility 385  
360-650-3618

**Chemistry Program Coordinator**

Stacey Maxwell  
Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

**Secondary Education****Professional Program****Information Program Manager**

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

**Physics Education Advisor**

Andrew Boudreaux  
Communications Facility 369  
360-650-7383  
Andrew.Boudreaux@wwu.edu

**Secondary Education****Program Coordinator**

Christina Carlson  
Miller Hall 401A  
360-650-3327  
Christina.Carlson@wwu.edu

### Sample Careers

Secondary Education Teacher

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Chemistry Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in chemistry, and are in the process of completing the general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.5 or higher in their general chemistry series and organic chemistry I & II courses before they can advance to Phase II and begin taking upper-division coursework.

This major must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

As certification to teach high school now requires more than four years of study, advisement prior to or at the beginning of the third year is absolutely necessary to avoid lengthening the program.

## Grade Requirements

A cumulative GPA of at least 2.50, plus a minimum grade of C (2.0) or better in the individual courses, must be maintained in the courses required by the major. Students must also earn a grade of C (2.0) or better in the secondary education professional program.

## Requirements

- ASTR 315 - The Solar System
- CHEM 461 - Physical Chemistry
- CHEM 462 - Physical Chemistry
- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 226 - Physics with Calculus IV
- PHYS 224 - Modern Physics I

- PHYS 225 - Modern Physics II
- PHYS 326 - Tools and Data Analysis
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- Choose either:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either option A or B:
  - Option A:
    - CHEM 251 - Elementary Organic Chemistry
    - CHEM 375 - Elements of Biochemistry
  - Option B:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 353 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
    - CHEM 375 - Elements of Biochemistry (or the following):
    - CHEM 471 - Biochemistry I
    - CHEM 472 - Biochemistry II
    - CHEM 473 - Molecular Biology
- 6 upper-division credits in physics and/or astronomy under advisement, to include 2-3 credits of:
  - PHYS 491 - Independent Research
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

# Bachelor of Science

## Biochemistry, BS

Department of Chemistry, College of Science and Engineering

**110 credits**

### Introduction

This major is part of an interdisciplinary program between the biology and chemistry departments at Western. The BS degree in biochemistry (with greater emphasis on the physical chemical theory behind biological chemistry) is offered via the chemistry department, whereas a BS degree in cellular and molecular biology (with a different emphasis) is offered via the biology department. The requirements for the BS in biochemistry are listed below. For the cellular and molecular biology degree program, see the biology department section of this catalog.

### Why Consider a Biochemistry Major?

The Biochemistry major provides many benefits to students through coursework and research opportunities, and is designed to meet diverse career goals. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

This major is part of an interdisciplinary program between the Biology and Chemistry Departments. The B.S. degree in Biochemistry places a greater emphasis on the physical chemical theory behind biological chemistry. This program is specifically designed for students who seek graduate study or employment in biochemistry or molecular biology.

#### Contact Information

##### Chemistry Department Chair

Spencer Anthony-Cahill  
Chemistry Building 270A  
360-650-3152  
Spencer.Anthony-Cahill@wwu.edu

##### Chemistry Program Coordinator

Stacey Maxwell  
Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

#### Sample Careers

Chemical/Pharmaceutical Sales | Physician | Crime Lab Analyst | High School Teacher | Industrial Chemist | Technical Writing | Dentist | Forensic Scientist | Quality Assurance Specialist | Research Scientist | Occupational Safety Specialist | Veterinarian | Science Lab Technician | Biochemist | Biotechnology Scientist | College Professor | Environmental Scientist/Consultant

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission to the Bachelor of Science major in biochemistry is selective and based upon preparation and prior academic performance. Application may be made through the chemistry department, Chemistry Building 270. Admission to the biochemistry major will be in two phases. Students will be designated Phase I majors until they have completed CHEM 121, CHEM 122, CHEM 123, CHEM 351 and CHEM 352 and BIOL 205. Students will be admitted to Phase II based on their performance in Phase I. Students with a grade point average of 3.0 or higher in the Phase I courses will be given preferential admission to Phase II. Students with a grade point average below 3.0 will be considered on a case by case basis for remaining spaces in the major. Note that neither completion of the prerequisites nor attainment of any specific GPA guarantees admission to Phase II. See the department's website for more details.

A typical four-year program leading to a Bachelor of Science degree in biochemistry is described on the department's website.



## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 324 - Methods in Molecular Biology
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I
- CHEM 466 - Biophysical Chemistry
  - Or
  - CHEM 461 - Physical Chemistry
- CHEM 467 - Biophysical Chemistry
- CHEM 468 - Biophysical Chemistry
- CHEM 471 - Biochemistry I
- CHEM 472 - Biochemistry II
- CHEM 473 - Molecular Biology
- CHEM 474 - Biochemistry Laboratory
- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
  - Or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - Or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - Or
  - MATH 138 - Accelerated Calculus
- Approved electives to total 2 credits

## Chemistry, BS

Department of Chemistry, College of Science and Engineering

**109 credits**

### Introduction

The Department of Chemistry, in addition to its core of fundamental studies in Analytical, Biochemistry, Inorganic, Organic and Physical chemistry, has a variety of elective courses that offer diversity in training,

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study and research at the undergraduate level. Within the Department, faculty members are active in many research areas including biofuels, protein engineering, computer modeling, catalysis, nanomaterials, materials for solar cells, electrochemistry, polymers, thin films, protein structural analysis by nuclear magnetic resonance and x-ray crystallography, and organic synthesis.

## Why Consider a Chemistry Major?

The Chemistry Department at Western Washington University is approved by the American Chemical Society, and students who complete the Bachelor of Science in the Chemistry program receive ACS certification of their degree.

The Bachelor of Science in Chemistry provides many benefits to students, and is designed to meet diverse career goals. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are numerous research opportunities under the direction of a faculty advisor.

### Contact Information

#### Chemistry Department Chair

Spencer Anthony-Cahill  
Chemistry Building 270A  
360-650-3152  
Spencer.Anthony-Cahill@wwu.edu

#### Chemistry Program Coordinator

Stacey Maxwell  
Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

### Sample Careers

High School Chemistry Teacher | Chemical/Pharmaceutical Sales | Crime Lab Analyst | Industrial Chemist | Veterinarian | Technical Writing | Forensic Scientist | Quality Assurance Specialist | Research Scientist | Physician | Occupational Safety Specialist | Science Lab Technician | College Professor

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Admission to the Bachelor of Science major in chemistry is selective and based upon preparation and prior academic performance. Application may be made through the chemistry department, Chemistry Building 270. Admission to the BS-Chemistry major will be in two phases. Students will be designated Phase I majors until they have completed CHEM 121, CHEM 122, CHEM 123, CHEM 351, CHEM 352 and MATH 124, MATH 125. Students will be admitted to Phase II based on their performance in Phase I. Students with a grade point average of 3.0 or higher in the Phase I courses will be given preferential admission to Phase II. Students with a grade point average below 3.0 will be considered on a case by case basis for remaining spaces in the major. Note that neither completion of the prerequisites nor attainment of any specific GPA guarantees admission to Phase II. See the department's website for more details.

A typical four-year program leading to a Bachelor of Science (ACS certified) is described on the department's website.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I
- CHEM 355 - Organic Chemistry Laboratory II
- CHEM 434 - Instrumental Analysis
- CHEM 436 - Instrumental Analysis Lab
- CHEM 441 - Advanced Inorganic Chemistry
- CHEM 461 - Physical Chemistry

- CHEM 462 - Physical Chemistry
- CHEM 463 - Physical Chemistry
- CHEM 464 - Physical/Inorganic Chemistry Laboratory I
- CHEM 465 - Physical/Inorganic Chemistry Laboratory II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 204 - Elementary Linear Algebra
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - CHEM 375 - Elements of Biochemistry
  - OR
  - CHEM 471 - Biochemistry I
  - CHEM 472 - Biochemistry II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - OR
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - OR
  - MATH 138 - Accelerated Calculus
- Advanced electives with prior departmental approval to total 9 credits

## Master of Science

### Chemistry, Industry Internship, Non-Thesis, MS

Department of Chemistry, College of Science and Engineering

#### Graduate Faculty

**Anthony-Cahill, Spencer J.**, PhD, protein folding, protein engineering.

**Antos, John**, PhD

**Berger, Robert**, PhD

**Borda, Emily J.**, PhD, investigation of college students' development of epistemological beliefs about science.

**Bussell, Mark E.**, PhD, surface and materials chemistry of catalytic and environmental processes.

**Emory, Steven R.**, PhD, analytical chemistry, spectroscopy, nanomaterials.

**Gilbertson, John D.**, PhD, inorganic synthesis, small molecule activation, nanoparticle catalysis.

**Kowalczyk, Tim**, PhD

**Leger, Janelle**, PhD

**Muniz, Marc**, PhD, investigation of college students' development of epistemological beliefs about science.

**Murphy, Amanda.**, PhD, organic synthesis, polymer and materials chemistry.

**O'Neil, Gregory W.**, PhD, natural products chemistry, organic synthesis.

**Patrick, David L.**, PhD, analytical and computational chemistry of condensed phases.

**Prody, Gerry A.**, PhD, biochemistry and molecular biology of plant viruses, plant pollen tubes, marine biochemistry, environmental biochemistry.

**Rider, David**, PhD

**Scheuermann, Margaret**, PhD, inorganic synthesis, small molecule activation, nanoparticle catalysis.

**Smirnov, Serge**, PhD, structure, dynamics, function and engineering of modular proteins.

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**Spiegel, P. Clint**, PhD, RNA and protein biochemistry, ribosome structure and function.  
**Vyvyan, James R.**, PhD, organic synthesis, natural products, asymmetric catalysis.

Program Advisor: P. Clint Spiegel

## Goals

This program prepares students for technical careers in industry, or for further study toward a more advanced degree.

## Prerequisites

A bachelor's degree and departmental approval. Applicants with an undergraduate chemistry degree are expected to have completed the following courses (or their equivalent) with a grade of B or better: CHEM 333, CHEM 434, CHEM 351, 352,353, CHEM 461, 462, 463, and CHEM 441 or CHEM 375 or CHEM 471, 472, 473. A student with lower than B may be required to repeat that course as determined under advisement with the graduate program advisor. Students with a bachelor's degree in another science field will choose an appropriate set of chemistry courses, in consultation with the Department's Graduate Committee, to provide a chemistry foundation for graduate study.

## Application Information

**Specific Test Requirements:** Graduate Record Exam, General Test.

**Supporting Materials:** A statement of research interests and future goals, including identification of up to three potential faculty research advisors, must accompany application.

## Industrial Internship Option, Non-Thesis

Students interested in pursuing a career in industry can obtain practical experience by participating in the industrial internship option as part of their MS program. Students choosing this option will normally earn a master's degree via the non-thesis option. However, in those instances where the research problem undertaken in the industrial setting can be coordinated with on-campus research, the student may exercise the thesis option, with approval of the graduate advisor.

Students spend one or two quarters as an intern with a company which has been selected in advance. This internship will normally take place during the second year of graduate study. Students interested in pursuing an industrial internship should notify the program advisor as early as possible during the first year of graduate study. The department cannot guarantee that an internship opening will be available for all interested students.

In addition to the internship, students exercising this option will be expected to submit a comprehensive report, using an approved format, describing the work accomplished during the internship. A seminar presentation describing the work is required. Additionally, the student will be expected to pursue a limited research problem on campus advised by Department faculty. This research problem will normally require the equivalent of one quarter's work, although it may be extended over more than one quarter.

## Course Work Requirements (48 credits)

- CHEM 501 - Research Project in Chemistry
- CHEM 595 - Seminar
- CHEM 596 - Seminar in Current Chemistry and Biochemistry
- CHEM 694 - Industrial Internship in Chemistry
- plus 31 credits under advisement

## Chemistry, Thesis, MS

Department of Chemistry, College of Science and Engineering

## Graduate Faculty

**Anthony-Cahill, Spencer J.**, PhD, protein folding, protein engineering.

**Antos, John**, PhD

**Berger, Robert**, PhD

**Borda, Emily J.**, PhD, investigation of college students' development of epistemological beliefs about science.

**Bussell, Mark E.**, PhD, surface and materials chemistry of catalytic and environmental processes.

**Emory, Steven R.**, PhD, analytical chemistry, spectroscopy, nanomaterials.

**Gilbertson, John D.**, PhD, inorganic synthesis, small molecule activation, nanoparticle catalysis.

**Kowalczyk, Tim**, PhD

**Leger, Janelle**, PhD

**Muniz, Marc**, PhD, investigation of college students' development of epistemological beliefs about science.

**Murphy, Amanda.**, PhD, organic synthesis, polymer and materials chemistry.

**O'Neil, Gregory W.**, PhD, natural products chemistry, organic synthesis.

**Patrick, David L.**, PhD, analytical and computational chemistry of condensed phases.

**Prody, Gerry A.**, PhD, biochemistry and molecular biology of plant viruses, plant pollen tubes, marine biochemistry, environmental biochemistry.

**Rider, David**, PhD

**Scheuermann, Margaret**, PhD, inorganic synthesis, small molecule activation, nanoparticle catalysis.

**Smirnov, Serge**, PhD, structure, dynamics, function and engineering of modular proteins.

**Spiegel, P. Clint**, PhD, RNA and protein biochemistry, ribosome structure and function.

**Vyvyan, James R.**, PhD, organic synthesis, natural products, asymmetric catalysis.

Program Advisor: John Gilbertson

## Goals

This program prepares students for technical careers in industry, or for further study toward a more advanced degree.

## Prerequisites

A bachelor's degree and departmental approval. Applicants with an undergraduate chemistry degree are expected to have completed the following courses (or their equivalent) with a grade of B or better: CHEM 333, CHEM 434, CHEM 351, 352,353, CHEM 461, 462, 463, and CHEM 441 or CHEM 471, 472, 473. A student with lower than B may be required to repeat that course as determined under advisement with the graduate program advisor. Students with a bachelor's degree in another science field will choose an appropriate set of chemistry courses, in consultation with the Department's Graduate Committee, to provide a chemistry foundation for graduate study.

## Application Information

**Specific Test Requirements:** Graduate Record Exam, General Test.

**Supporting Materials:** A statement of research interests and future goals, including identification of up to three potential faculty research advisors, must accompany application.

## Course Work Requirements

- Thesis option: (minimum 45 credits)
  - CHEM 595 - Seminar (2)
  - CHEM 596 - Seminar in Current Chemistry and Biochemistry (3)
  - CHEM 690 - Thesis (12)
  - plus 28 credits under advisement

## Thesis Option

The Master of Science thesis demonstrates that you are capable of pursuing a program of original and independent research, that you can formulate and carry out a research project, and that you can report on the project in a proper scientific manner. The thesis option prepares students for technical careers in industry, or

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for further study toward a more advanced degree. This option requires advanced course work in chemistry, biochemistry, or environmental chemistry, and research, with the latter culminating in a MS thesis. Shortly after entering the program students select a faculty advisor based on their research interests and agree on a research problem. Under the guidance of their faculty advisor, students carry out the research program, and write and defend the thesis in a final oral exam.

## Minor

### Chemistry Minor

Department of Chemistry, College of Science and Engineering

**29-30 credits**

#### Introduction

The Department of Chemistry, in addition to its core of fundamental studies in Analytical, Biochemistry, Inorganic, Organic and Physical chemistry has a variety of elective courses that offer diversity in training, study and research at the undergraduate level. Within the department, faculty members are active in many research areas including biofuels, protein engineering, computer modeling, catalysis, nanomaterials, materials for solar cells, electrochemistry, polymers, thin films, protein structural analysis by nuclear magnetic resonance and x-ray crystallography, and organic synthesis.

#### Why Consider a Chemistry Minor?

A minor in chemistry provides additional depth and laboratory experience beyond the chemistry required for another major program, including direct access to modern laboratory equipment and instrumentation. Major fields that are especially complemented by a minor in chemistry include Environmental Studies, Environmental Science, Psychology, Behavioral Neuroscience, and some pre-health careers.

#### Contact Information

##### Chemistry Department Chair

Spencer Anthony-Cahill  
Chemistry Building 270A  
360-650-3152  
Spencer.Anthony-Cahill@wwu.edu

##### Chemistry Program Coordinator

Stacey Maxwell  
Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - Or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- 15 credits of upper-division chemistry courses
  - Up to 6 upper-division credits may overlap and be applied to both the chemistry minor and the student's major degree requirements.

## Chemistry Courses

### CHEM 100 - Introduction to Chemistry

An introductory course in chemistry designed for freshmen students intending to enroll in the General Chemistry sequence (CHEM 121, 122, 123). Instruction in dimensional analysis, atomic structure, basic laboratory technique, and chemical bonding. Includes lab. S/U grading.

**Prerequisites & Notes:** MATH 114 or suitable General Math Placement Test score.

**Credits:** 2

**Grade Mode:** S/U

### CHEM 101 - Chemical Concepts

A course for non-science students. Emphasizes the process of building scientific models for how matter behaves through the collection and interpretation of evidence. Applications to important societal issues will also be discussed. Lab included.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### CHEM 121 - General Chemistry I

Stoichiometry atomic and molecular structure, states of matter, solutions, thermodynamics, chemical equilibrium, kinetics, electrochemistry. Lab included.

**Prerequisites & Notes:** MATH 114 or suitable General Math Placement Test score.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### CHEM 122 - General Chemistry II

Stoichiometry atomic and molecular structure, states of matter, solutions, thermodynamics, chemical equilibrium, kinetics, electrochemistry. Lab included.

**Prerequisites & Notes:** CHEM 121

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### CHEM 123 - General Chemistry III

Stoichiometry atomic and molecular structure, states of matter, solutions, thermodynamics, chemical equilibrium, kinetics, electrochemistry. Lab included.

**Prerequisites & Notes:** CHEM 122

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### CHEM 125 - General Chemistry I, Honors

An accelerated survey of fundamental chemical principles, including atomic and molecular structure, bonding, chemical thermodynamics, equilibria, kinetics, solution chemistry, nuclear chemistry, and analytical methods. Lab included.

**Prerequisites & Notes:** One year of high school chemistry or equivalent; MATH 114 or suitable General Math Placement Test score.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### CHEM 126 - General Chemistry II, Honors

An accelerated survey of fundamental chemical principles, including atomic and molecular structure, bonding, chemical thermodynamics, equilibria, kinetics, solution chemistry, nuclear chemistry, and analytical methods. Lab included.

**Prerequisites & Notes:** CHEM 125

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### CHEM 201 - Independent Research

Undergraduate research under supervision. Written report required.

**Prerequisites & Notes:** CHEM 351 or concurrent and permission of instructor.

**Credits:** 1-3

**Grade Mode:** S/U

### CHEM 225 - General Chemistry III, Honors

An accelerated survey of fundamental chemical principles, including atomic and molecular structure, bonding, chemical thermodynamics, equilibria, kinetics, solution chemistry, nuclear chemistry, and analytical methods. Lab included.

**Prerequisites & Notes:** CHEM 126

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### CHEM 251 - Elementary Organic Chemistry

Reactions, nomenclature and uses of carbon compounds; an abbreviated course in organic chemistry primarily for persons not requiring the CHEM 351-354 series.

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**Prerequisites & Notes:** CHEM 121 or CHEM 125

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

## CHEM 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## CHEM 301 - Independent Research

Undergraduate research under supervision. Written report required. Repeatable to a maximum of 9 cr over three quarters. S/U grading.

**Prerequisites & Notes:** 30 credits of chemistry

**Credits:** 1-3

**Grade Mode:** S/U

## CHEM 308 - Introduction to Polymer Chemistry

Types of polymers, methods of polymerization, and preparation of important commercial thermoplastic and thermosetting plastics. Addition and condensation polymers are prepared in the laboratory.

**Prerequisites & Notes:** CHEM 121 or CHEM 125; CHEM 251; PCE 371.

**Credits:** 3

**Grade Mode:** Letter

## CHEM 333 - Analytical Chemistry

Theory and practice of gravimetric, volumetric, potentiometric and spectrophotometric methods of analysis. Selected analytical topics such as ion exchange resins, non-aqueous solvents, chelates, extractions, chromatography.

**Prerequisites & Notes:** CHEM 123

**Credits:** 5

**Grade Mode:** Letter

## CHEM 351 - Organic Chemistry

Chemistry of carbon compounds with emphasis on structural theory, reactions and mechanisms.

**Prerequisites & Notes:** CHEM 123 or CHEM 225 or concurrent

**Credits:** 4

**Grade Mode:** Letter

## CHEM 352 - Organic Chemistry

Chemistry of carbon compounds with emphasis on structural theory, reactions and mechanisms.

**Prerequisites & Notes:** CHEM 351

**Credits:** 4

**Grade Mode:** Letter

## CHEM 353 - Organic Chemistry

Chemistry of carbon compounds with emphasis on structural theory, reactions and mechanisms.

**Prerequisites & Notes:** CHEM 352

**Credits:** 3

**Grade Mode:** Letter

## CHEM 354 - Organic Chemistry Laboratory I

Techniques of organic chemistry: reactions, separations and syntheses of organic compounds.

**Prerequisites & Notes:** CHEM 352 or concurrent

**Credits:** 3

**Grade Mode:** Letter

## CHEM 355 - Organic Chemistry Laboratory II

Techniques of organic chemistry: reactions, separations; multi-step syntheses and introduction to practical spectroscopy. Includes online and hardcopy literature searching, use of chemical drawing software, and writing journal-style reports. This course is intended for students planning to major in Chemistry.

**Prerequisites & Notes:** CHEM 354, CHEM 353 or concurrent

**Credits:** 3

**Grade Mode:** Letter

## CHEM 356 - Organic Chemistry Laboratory II for Life Sciences

Techniques of organic chemistry: reactions, separations; syntheses and introduction to practical spectroscopy. This course is specifically designed to meet the requirements of students in Life Sciences, Biochemistry, and/or Pre-Healthcare Professions programs.

**Prerequisites & Notes:** CHEM 353 or concurrent; and CHEM 354

**Credits:** 2

**Grade Mode:** Letter

## CHEM 375 - Elements of Biochemistry



Introduction to the structure and function of proteins, nucleic acid, lipids, and carbohydrates. Enzyme chemistry. Replication, transcription, and translation of genetic information. Metabolism of carbohydrates, the citric acid cycle, electron transport, and oxidation phosphorylation. This course is not intended for students in the bachelor of science-biochemistry program.

**Prerequisites & Notes:** CHEM 251 (or CHEM 351, CHEM 352, CHEM 353)

**Credits:** 4

**Grade Mode:** Letter

#### **CHEM 381 - Biofuels**

An examination of current and emerging biofuel technologies including an understanding of the processes for biomass conversion to fuel and other factors associated with commercial biofuel production. Also offered as ENRG 381.

**Prerequisites & Notes:** CHEM 251 or CHEM 351.

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### **CHEM 401 - Independent Research**

Undergraduate research under supervision. Written report required. Repeatable to a maximum of 9 cr over three quarters. S/U grading.

**Prerequisites & Notes:** CHEM 461 or concurrent and permission of instructor.

**Credits:** 1-3

**Grade Mode:** S/U

#### **CHEM 405 - Intensive Writing in Chemistry or Biochemistry**

Concentrated study of a topic associated with chemistry or biochemistry. Students are required to write a substantial expository paper. Writing proficiency course.

**Prerequisites & Notes:** CHEM 401, CHEM 425, CHEM 471, CHEM 494 or CHEM 498 or concurrent; and permission of instructor.

**Credits:** 1

**Grade Mode:** Letter

#### **CHEM 425A - Natural Products Chemistry.**

**Prerequisites & Notes:** CHEM 353; instructor permission

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 425B - Organic Reactions.**

**Prerequisites & Notes:** CHEM 353; instructor permission

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 425C - Medicinal Chemistry.**

**Prerequisites & Notes:** CHEM 353 or instructor permission; CHEM 471 recommended

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 425D - Group Theory and Spectroscopy.**

**Prerequisites & Notes:** CHEM 463; instructor permission

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 425H - Enzyme Chemistry.**

**Prerequisites & Notes:** CHEM 463 or CHEM 468; CHEM 471; instructor permission

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 425I - Immunology**

**Prerequisites & Notes:** CHEM 473/BIOL 473; instructor permission

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 425K - Bioanalytical Instrumentation**

The analysis of biomolecules, substances of significant biological interest, and substances in biological matrices using advanced instrumental methods.

**Prerequisites & Notes:** CHEM 333 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

#### **CHEM 425M - Organometallic Chemistry.**

**Prerequisites & Notes:** CHEM 441; instructor permission

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**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 425P - Computers in Chemistry.**

**Prerequisites & Notes:** CHEM 461 or CHEM 467 or PHYS 331 or concurrent, or instructor permission

**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 425R - Surface Chemistry**

**Prerequisites & Notes:** CHEM 461; instructor permission

**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 425S - Protein Engineering.**

**Prerequisites & Notes:** CHEM 471; instructor permission

**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 425T - Virology**

**Prerequisites & Notes:** CHEM 473/BIOL 473; instructor permission

**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 425U - Advanced Topics in Chemistry: Bioinorganic Chemistry**

Examining binding sites and reactivity of biologically important metal ions, and the physical methods used to probe these sites.

**Prerequisites & Notes:** CHEM 461 or concurrent.  
**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 425V - Chemistry of Renewable Energy**

The role of chemistry in energy production, distribution, storage and usage, with a focus on chemical, photochemical, and electrochemical transformations. Applications to existing and emerging energy technologies.

**Prerequisites & Notes:** A passing grade (C- or better) in each of the following courses: CHEM 123 and PHYS 163; and a passing grade in one of the following courses: MSCI 330, PCE 371, CHEM 351, or PHYS 335.  
**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 434 - Instrumental Analysis**

Theory or modern optical, electrical and other

physical measurements applied to chemical analysis.

**Prerequisites & Notes:** CHEM 333 or CHEM 225; CHEM 461 or concurrent

**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 436 - Instrumental Analysis Lab**

Application of modern instrumental methods of chemical analysis including optical, electrical and other physical measurements.

**Prerequisites & Notes:** CHEM 434 or concurrent.  
**Credits:** 2

**Grade Mode:** Letter

## **CHEM 441 - Advanced Inorganic Chemistry**

Bonding, structure and reactivity of inorganic molecules; transition metal and organometallic chemistry; chemistry of the nonmetallic elements.

**Prerequisites & Notes:** CHEM 462 or concurrent

**Credits:** 4  
**Grade Mode:** Letter

## **CHEM 454 - Organic Spectroscopy**

Identification of organic compounds by spectroscopic methods: infrared, nuclear magnetic resonance, ultraviolet and mass spectroscopy. Laboratory work includes application of spectroscopy in identifying unknowns with confirmation by chemical methods.

**Prerequisites & Notes:** CHEM 123 or CHEM 225; CHEM 353, CHEM 355

**Credits:** 5  
**Grade Mode:** Letter

## **CHEM 455 - Advanced NMR Techniques**

A lecture/lab course in advanced techniques in nuclear magnetic resonance, including Fourier transformation, multiple pulse sequences, relaxation time measurements, gated decoupling, polarization transfer, pulse sequences and two-dimensional NMR experiments.

**Prerequisites & Notes:** CHEM 454

**Credits:** 3  
**Grade Mode:** Letter

## **CHEM 461 - Physical Chemistry**

Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics and electrochemistry.

**Prerequisites & Notes:** CHEM 123 or CHEM 225;

MATH 224, and PHYS 161, PHYS 162, PHYS 163.

**Credits:** 4

**Grade Mode:** Letter

### **CHEM 462 - Physical Chemistry**

Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics and electrochemistry.

**Prerequisites & Notes:** CHEM 461

**Credits:** 4

**Grade Mode:** Letter

### **CHEM 463 - Physical Chemistry**

Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics and electrochemistry.

**Prerequisites & Notes:** CHEM 462

**Credits:** 3

**Grade Mode:** Letter

### **CHEM 464 - Physical/Inorganic Chemistry Laboratory I**

An integrated approach to inorganic synthesis and physical measurement. Includes formal report writing.

**Prerequisites & Notes:** CHEM 333 or CHEM 225; CHEM 441 or concurrent; CHEM 461; CHEM 462 or concurrent.

**Credits:** 3

**Grade Mode:** Letter

### **CHEM 465 - Physical/Inorganic Chemistry Laboratory II**

An integrated approach to inorganic synthesis and physical measurement. Includes formal report writing.

**Prerequisites & Notes:** CHEM 463 or concurrent and CHEM 464.

**Credits:** 3

**Grade Mode:** Letter

### **CHEM 466 - Biophysical Chemistry**

Biophysical experimental methods and theory, including classical and quantum mechanics, bonding, spectroscopy, crystallography, ligand binding, protein/enzyme function, structural biophysics.

**Prerequisites & Notes:** MATH 224; PHYS 161, PHYS 162, PHYS 163; CHEM 471 (taken before or concurrently per instructor's permission)

**Credits:** 4

**Grade Mode:** Letter

### **CHEM 467 - Biophysical Chemistry**

Biophysical experimental methods and theory, including classical and statistical thermodynamics, bonding, ligand binding, spectroscopy, transport processes, enzyme kinetics, and X-ray diffraction.

**Prerequisites & Notes:** MATH 224; one year of college physics; CHEM 471/BIOL 471

**Credits:** 3

**Grade Mode:** Letter

### **CHEM 468 - Biophysical Chemistry**

Biophysical experimental methods and theory, including classical and statistical thermodynamics, bonding, ligand binding, spectroscopy, transport processes, enzyme kinetics, and X-ray diffraction.

**Prerequisites & Notes:** CHEM 467, CHEM 461

**Credits:** 4

**Grade Mode:** Letter

### **CHEM 471 - Biochemistry I**

A consideration of the structure and function of biological macromolecules; intermediary metabolism; membrane structure and function; bioenergetics. Also offered as BIOL 471.

**Prerequisites & Notes:** CHEM 123 or 225; CHEM 353 or concurrent; and BIOL 205; CHEM 333 recommended; also offered as BIOL 471.

**Credits:** 4

**Grade Mode:** Letter

### **CHEM 472 - Biochemistry II**

A consideration of the structure and function of biological macromolecules; intermediary metabolism; membrane structure and function; bioenergetics. Also offered as BIOL 472.

**Prerequisites & Notes:** CHEM 471

**Credits:** 4

**Grade Mode:** Letter

### **CHEM 473 - Molecular Biology**

An examination of the structure, replication and expression of genetic information. Also offered as BIOL 473.

**Prerequisites & Notes:** CHEM 471; BIOL 321 or BIOL 323.

**Credits:** 3

**Grade Mode:** Letter

### **CHEM 474 - Biochemistry Laboratory**

Modern methods of isolation and characterization of biological macromolecules, especially enzymes

## CHEMISTRY

and other proteins. Also offered as BIOL 474.

**Prerequisites & Notes:** CHEM 123 or CHEM 225; CHEM 354 or BIOL 324; CHEM 471 (or concurrent) OR BIOL 471 (or concurrent).

**Credits:** 3

**Grade Mode:** Letter

### CHEM 494 - Industrial Work Experience

Academic credit awarded for chemical employment in industry or government in areas such as research, development or quality control. Written report and an oral or poster presentation describing the work are required.

**Prerequisites & Notes:** 30 credits of chemistry including CHEM 333 and permission of department.

**Credits:** 3

**Grade Mode:** S/U

### CHEM 498 - Honors Research in Chemistry

Oral presentation and honors thesis required.

**Prerequisites & Notes:** Six credits of Chemistry research courses, advancement to departmental honors candidacy (application required).

**Credits:** 3

**Grade Mode:** Letter

### CHEM 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### CHEM 501 - Research Project in Chemistry

Advanced individual laboratory projects under supervision. Repeatable to a maximum of 15 credits including original course.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1-6

**Grade Mode:** Letter

### CHEM 502 - Teaching Practicum

Curriculum and instructional support for teaching the general chemistry laboratory sequence. Repeatable to a maximum of 3 cr. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1

**Grade Mode:** S/U

### CHEM 510 - Special Topics

Specialized lectures on a conference basis for a particular area of interest. Repeatable to a maximum of 12 credits including original course.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1-6

**Grade Mode:** Letter

### CHEM 511 - Advanced Laboratory Methods

Specialized laboratory on a conference basis for a particular area of interest. Repeatable to a maximum of 12 credits including original course.

**Prerequisites & Notes:** CHEM 463

**Credits:** 1-6

**Grade Mode:** Letter

### CHEM 534 - Instrumental Analysis

Principles of chromatographic, spectrochemical and electrochemical methods of analysis.

**Prerequisites & Notes:** CHEM 333 or CHEM 225; CHEM 461 or concurrent; permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### CHEM 535 - Bioanalytical Instrumentation

The analysis of biomolecules, substances of significant biological interest, and substances in biological matrices using advanced instrumental methods.

**Prerequisites & Notes:** CHEM 333 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### CHEM 536 - Instrumental Analysis Laboratory

Advanced techniques of modern instrumental analysis including optical, electrical, and other physical measurements, including analysis of materials.

**Prerequisites & Notes:** CHEM 534 or concurrent.

**Credits:** 2

**Grade Mode:** Letter

### CHEM 539 - Bioinorganic Chemistry

Examining binding sites and reactivity of biologically important metal ions, and the physical methods used to probe these sites.

**Prerequisites & Notes:** CHEM 461 or concurrent

**Credits:** 3

**Grade Mode:** Letter

### CHEM 540 - Organometallic Chemistry

Classes of organometallic compounds; structure, bonding, general patterns of reactivity; reactions; industrial homogeneous catalysis.

**Prerequisites & Notes:** CHEM 441

**Credits:** 3

**Grade Mode:** Letter

### CHEM 552 - Chemistry of Natural Products

Isolation, structure, synthesis, biosynthesis and photochemistry of selected classes of natural products.

**Prerequisites & Notes:** CHEM 353 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### CHEM 553 - Organic Reactions

Organic chemical reactions as applied to problems in organic synthesis.

**Prerequisites & Notes:** CHEM 353 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### CHEM 554 - Organic Spectroscopy

Identification of organic compounds by spectroscopic methods: infrared, nuclear magnetic resonance, ultraviolet and mass spectroscopy. Lab included.

**Prerequisites & Notes:** CHEM 123, CHEM 353, CHEM 355

**Credits:** 5

**Grade Mode:** Letter

### CHEM 555 - Advanced NMR Techniques

A lecture/lab course in advanced techniques in nuclear magnetic resonance, including Fourier transformation, multiple pulse sequences, relaxation time measurements, gated decoupling, polarization transfer and two-dimensional NMR experiments.

**Prerequisites & Notes:** CHEM 454 or CHEM 554

**Credits:** 3

**Grade Mode:** Letter

### CHEM 556 - Medicinal Chemistry

The chemistry of drug discovery, design, development, and action.

**Prerequisites & Notes:** CHEM 353 or instructor permission; CHEM 471 recommended

**Credits:** 3

**Grade Mode:** Letter

### CHEM 562 - Group Theory and Spectroscopy

Correlation of mathematical group theory with molecular symmetry and application of symmetry groups to the interpretation of molecular spectra. Principle applications will be to infrared and Raman vibrational spectra.

**Prerequisites & Notes:** CHEM 463

**Credits:** 3

**Grade Mode:** Letter

### CHEM 563 - Computers in Chemistry

Use of computers in chemistry and biochemistry, including chemistry on the Internet, molecular modeling, visualization, simulation, and the control of laboratory experiments.

**Prerequisites & Notes:** CHEM 461 or CHEM 467 or PHYS 331 or concurrent, or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### CHEM 565 - Surface Chemistry

Physical chemistry of solid surfaces. Examples drawn from heterogeneous catalysis and environmental chemistry.

**Prerequisites & Notes:** CHEM 461

**Credits:** 3

**Grade Mode:** Letter

### CHEM 573 - Enzyme Chemistry

Preparation and measurement of activities of enzymes; mechanism of enzyme reactions; properties of individual enzymes and coenzymes.

**Prerequisites & Notes:** CHEM 463 or CHEM 468, CHEM 471

**Credits:** 3

**Grade Mode:** Letter

### CHEM 575 - Immunology

Biochemistry of the immune response, antibody structure and function, origin of antibody diversity, cell-mediated immunity.

**Prerequisites & Notes:** CHEM 473; instructor permission

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**Credits:** 3

**Grade Mode:** Letter

## **CHEM 578 - Protein Engineering**

Analysis of protein structure and protein-ligand interactions, protein design considerations, and design of small molecule and protein-based therapeutic agents.

**Prerequisites & Notes:** CHEM 471

**Credits:** 3

**Grade Mode:** Letter

## **CHEM 579 - Virology**

Overview of viruses - their structures, life cycles and control. Bacterial, plant and animal viruses will be discussed.

**Prerequisites & Notes:** CHEM 473 or BIOL 473

**Credits:** 3

**Grade Mode:** Letter

## **CHEM 595 - Seminar**

Presentation of contemporary subjects in chemistry. Repeatable to a maximum of 2 cr. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

## **CHEM 596 - Seminar in Current Chemistry and Biochemistry**

Introduction to current research problems in chemistry and biochemistry. Repeatable to a maximum of 6 cr. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

## **CHEM 690 - Thesis**

Research in chemistry under faculty direction terminating in a master's thesis. Repeatable to a maximum of 12 cr. S/U grading.

**Credits:** 1-6

**Grade Mode:** S/U

## **CHEM 694 - Industrial Internship in Chemistry**

A supervised technical field experience in chemical laboratory practice. The experience may be in an industrial or government laboratory setting in such areas as research and development, chemical sales, manufacturing, process development, clinical chemistry, analytical chemistry, quality control or environmental control. A project report

following an approved format is required.

Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** advancement to candidacy; graduate advisor permission

**Credits:** 1-6

**Grade Mode:** S/U

# Computer Science

## Introduction

The proliferation of desktop computers, laptop computers, mobile devices and networks is transforming the world rapidly and irreversibly. Search engines and social networking sites have provided information to and forged connections between people worldwide. Advances in areas such as the World Wide Web, robotics, video games, multicore computing, artificial intelligence and cyber security are obviously central to the discipline of computer science. However, other fields such as genetics, atomic physics, renewable energy, and health care depend upon computers for advancement as well. The increasing use of and reliance on computers in our modern technological society makes the study of computer science an exciting and challenging one.

Computer science at Western is composed of core classes organized around the study of design and analysis techniques used to write software in various application domains along with details about the internal workings of computers and networks. Elective classes in areas such as artificial intelligence, mobile device programming, robotics, graphics, web programming, bioinformatics, computer security, and video game programming allow students to explore areas of individual interest.

Faculty research interests span diverse areas of computer science including robotics, natural language processing, multiprocessing, cyber security, information retrieval, graphics, optimization algorithms, video games, bioinformatics, computer networks, and formal methods. Members of the department are involved in collaborative projects with government agencies, local industry and other academic units at Western

## Faculty

**PERRY FIZZANO** (2007) Chair and Associate Professor. BS, Widener University; PhD, Dartmouth College.

**DAVID C. BOVER** (2002) Associate Dean and Professor. BS, Monash University; PhD, Australian National University.

**ARAN CLAUSON** (2014) Instructor. BS, MS, Western Washington University; PhD, University of Oregon.

**MARTIN GRANIER** (1997) Senior Instructor and Director, Internet Studies Center. BS, Middle Tennessee State University; MS, University of Southwestern Louisiana; PhD, University of Oregon.

**JAMES W. HEARNE** (1986) Professor. BA, MA, PhD, University of California.

**BRIAN HUTCHINSON** (2013) Assistant Professor, BS, MS Western Washington University, PhD University of Washington

**JAMES L. JOHNSON** (1981) Professor. BS, University of Louisville; MS, PhD, University of Minnesota.

**DEBRA S. JUSAK** (1988) Associate Professor. BA, State University of New York at Potsdam; MS, University of Connecticut; PhD, University of California-Irvine.

**JOHN D. LAWSON** (2006) Associate Professor. BS, MS, PhD, University of Oregon.

**YUDONG LIU** (2013) Assistant Professor. BS, MS, Jilin University; PhD, Simon Fraser University.

**GEOFFREY B. MATTHEWS** (1985) Professor. BA, University of California; MA, PhD, Indiana University.

**MICHAEL MEEHAN** (1996) Professor. BS, Birmingham-Southern College; MS, PhD, University of Alabama-Huntsville.

**PHILIP A. NELSON** (1987) Associate Professor. BS, Pacific Union College; MS, University of California-Davis; PhD, University of Washington.

**CHRISTOPHER REEDY** (2004) Senior Instructor. BS, MS, Massachusetts Institute of Technology; PhD, University of California-San Diego.

**JEFFREY WOODCOCK** (2013) Instructor. BS, MS, California State University - Fullerton.

**JIANNA ZHANG** (2002) Associate Professor. BS, MS, PhD, University of Regina.

## Programs

The Computer Science Department offers a Bachelor of Science in Computer Science which is accredited by the Computing Accreditation Commission of ABET, [www.abet.org](http://www.abet.org). Alternatively, the Computer Science Department cooperates with the Department of Mathematics to offer a combined major, Mathematics/Computer Science, BS. The department also offers two minors – one in Computer Science and one in Computer Systems. At the graduate level, the department offers a Master of Science in Computer Science.

Furthermore, a student could pursue an interdisciplinary minor in Internet Resource Creation and Management, and three certificate programs: Web Content Development, Web Programming, and E-commerce. This minor and the certificate programs are designed so that computer science majors, as well as non-computer science majors, may gain the technical and communication background necessary for developing, maintaining, and managing websites and resources.

## Declaring a Computer Science Major

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Admission to the Computer Science major is based on students' academic performance in CSCI 241, CSCI 247 and CSCI 301. Students with a cumulative GPA of 2.7 or above in CSCI 241, CSCI 247 and CSCI 301 will be given preferential admission to the major. Students with a cumulative GPA below 2.7 will be considered for admission on a case by case basis.

The application to the computer science major includes an application form and a major declaration card. Students may declare a major by contacting the Program Coordinator for Advising in CF 459. Students should apply to the major by the 5th week of the quarter in which they will complete the pre-major courses. Upon being admitted to the major students will be assigned an academic advisor from the computer science faculty.

## Career Opportunities

The United States Bureau of Labor Statistics projects that job growth in the coming decade for computer science is larger than all other areas of science combined. Graduates of Western's Computer Science Department are employed by industry giants such as Microsoft, Boeing, Google, Amazon and Adobe while others have gone on to work for small start-ups, government research labs, and several have started their own company. Our alumni create a rich network of contacts which current students often utilize to land paid internships and lucrative, challenging jobs right out of college. There is no shortage of exciting career opportunities available to graduates of Western's Computer Science Department.

## Internet Studies Center

The Internet Studies Center (ISC) provides an adjunct program to a regular degree program. The center offers courses in website development and management that enable students to apply their major field in the world of web-based communications and enterprise. Students completing a sequence of these courses are eligible for certification. The courses follow three different tracks. Students from a wide variety of liberal arts and science majors pursue the Web Content Development track. This certifies that students have sufficient technical knowledge and skill to work effectively as web content producers in a development team where they must work with programmers and project managers to produce a professional website. The Web Programming certification track provides a deeper technical program for CS majors to master programming skills pertinent to content delivery in large, dynamic websites. Finally, the E-commerce certification track, offered in conjunction with the Finance, Marketing and Decision Sciences department of the College of Business and

Economics, provides students with in-depth knowledge of large website management for e-commerce and other enterprise applications.

Those students interested in Web development but not seeking certification may take a set of courses that leads to a minor in internet resource creation and management. This minor complements degrees in disciplines outside computing, providing students with the ability to publish and maintain material on the World Wide Web. This minor will enhance students standing in applications to entry-level positions and helps increase the marketability of their major degree. The curriculum for this minor and all of the ISC-sponsored courses adapt to changes in internet technology as the internet evolves.

## Facilities

The department has a number of laboratories that support the computer science program. The general purpose labs are used to support the teaching of first year classes and beyond. These labs contain modern dual-monitor desktop workstations running Windows and Linux and have specialized software installed that is available nowhere else on campus. Additionally, there are special purpose labs and equipment dedicated to support education and research in robotics, computer graphics, video games, real-time and embedded systems, multi-processor computing, computer security, data mining and information retrieval.

## Advice to Freshman

The core curriculum for the BS in Computer Science is arranged such that early courses are required as prerequisites for later courses. Thus, it is important to start the core computer science sequence and supporting mathematics and science courses as early as possible, since any substantial delay will result in the student needing more than four years to complete the degree.

## Mid-Program Checkpoint

The first two years of the computer science BS is based on the following courses:

CSCI 141, CSCI 145, CSCI 241, CSCI 247, MATH 124, MATH 125, MATH 204 and a supporting science sequence.

If these courses and all General University Requirements (GURs) are completed during the first two years, a student can complete the computer science BS in two additional year

## Advice to Transfer Students



Transfer students are very welcome to join the computer science program at Western. The following courses are not required of transfer students; however, if a student wants to complete the computer science degree in two additional years then the following courses should be taken before arriving at Western:

- All General University Requirements
- MATH 124, MATH 125, MATH 204
- Two programming courses in a high-level language (such as Python, C#, Java, or C++)
- A year sequence chosen from BIOL 204, BIOL 205, BIOL 206; CHEM 121, CHEM 122, CHEM 123; PHYS 161, PHYS 162, PHYS 163; GEOL 211, GEOL 212, and one of GEOL 308, GEOL 309, GEOL 314, GEOL 315, GEOL 316, GEOL 340

Students should be aware that like-named 200-level community college courses may not transfer as equivalent.

### Contact Information

Department of Computer Science, Communication Facility 495, Western Washington University, Bellingham, WA 98225- 9165. Please direct questions to the departmental office: The phone is 360-650-3805, or correspond by e-mail to [cs.dept@wwu.edu](mailto:cs.dept@wwu.edu).

### Advising

Undergraduate Advisor: Located in CF 459. See [www.cs.wwu.edu](http://www.cs.wwu.edu) and click on the advising link.

## Bachelor of Science

### Computer and Information Systems Security, BS

Department of Computer Science, College of Science and Engineering

**59 credits**

#### Introduction

This is a joint academic program between Western Washington University (WWU) and Whatcom Community College (WCC), culminating in a baccalaureate degree in computer and information systems security. Students complete the first two years of the program at WCC, earning an Associate in Applied Science - Transfer Degree in Cybersecurity. The final two years of the program at WWU enables them to complete the requirements for BS in Computer and Information Systems Security (CISS).

#### Why Consider a Computer and Information Systems Security Major?

The rise of cyber-attacks and a heightened awareness of network vulnerability, coupled with a shortage of trained cybersecurity professionals, is creating serious consequences for individuals, corporations and government agencies seeking to protect sensitive information. In response to the emerging demand, Whatcom Community College (WCC) and Western Washington University's (WWU) College of Sciences and Technology are working together in one of the nation's few community college-to-university cybersecurity collaborations. As a result, students may enroll at Whatcom to begin a pathway to a Bachelor's degree in Computer and Information Systems Security (CISS) from Western.

This new applied program is designed to provide students and IT professionals the opportunity to continue their education to the bachelor's degree level in the emergent field of computer information security. The CISS degree will prepare graduates for high-demand professional roles such as network specialist, network administrator, network security administrator, secure software development specialist or digital forensic practitioner.

This new two-year Associate in Applied Science – Transfer degree in Cybersecurity will allow graduates to apply to Western for the CISS degree, and transfer up to 91 credits. WCC graduates will have mastered the technical knowledge of today's information systems. The benefit to continuing through to the bachelor's degree is they will have the technical skills and the additional education requirements of the majority of potential employers; specifically larger businesses and local, state and federal government positions.

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## Contact Information

David Bover  
Communications Facility 477  
360-650-3798  
David.Bover@wwu.edu

## Sample Careers

Computer network security administrator | Secure software development specialist | Digital forensic practitioner

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

- Completion of Associate in Applied Science Degree in Computer Information Systems from Whatcom Community College
- Completion of at least 91 quarter-system credits including the following courses: CIS 106, CIS 110, CIS 116, CIS 205, CIS 214, CIS 215, CIS 216, CIS 227, CIS 228, CIS 229, CS 140, CS 145, MATH 141, MATH 142, MATH 151, ENGL 101, PHYS 221, PHIL 130 and electives of 0-7 credits of any transferable college level courses numbered 100 or above
- Minimum GPA of 2.50

## Application Process

Priority consideration for admission will be given to applicants submitting all of the following requirements by the priority deadline:

- WWU Transfer Application submitted by the application deadline and \$55 non-refundable application fee: [admissions.wwu.edu/transfer](http://admissions.wwu.edu/transfer)
- Official transcripts from Whatcom Community College

## Major Declaration Process

Students will be declared majors upon admission acceptance. For more information, please contact David Bover, [David.Bover@wwu.edu](mailto:David.Bover@wwu.edu), 360-650-3798.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Required (24 credits)

- CISS 247 - Computer Systems I
- CISS 301 - Formal Languages and Functional Programming
- CISS 349 - Computer System Administration
- CISS 360 - Operating System Concepts
- CISS 461 - Computer Security
- CISS 495 - Computer Security Project

### Support Courses (19 credits)

- ENG 302 - Introduction to Technical and Professional Writing
- MATH 125 - Calculus and Analytic Geometry II
- MATH 341 - Probability and Statistical Inference
- PHYS 162 - Physics with Calculus II

## CISS Electives (16 credits)

- ❑ Select 4 courses from the following elective topics:
  - CISS 346 - Secure Software Development
  - CISS 421 - Computer Forensics
  - CISS 422 - Dynamic Analysis of Software
  - CISS 423 - Software Reverse Engineering
  - CISS 464 - Penetration Testing
  - CISS 469 - Advanced Network System Security
  - CISS 478 - Cryptographic Techniques

## Computer Science, BS

Department of Computer Science, College of Science and Engineering

### 94 credits from computer science and mathematics

#### Introduction

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Computer Science at Western is composed of core classes organized around the study of design and analysis techniques used to write software in various application domains along with details about the internal workings of computers and networks. Elective classes in areas such as artificial intelligence, mobile device programming, robotics, graphics, web programming, bioinformatics, computer security, and video game programming allow students to explore areas of individual interest.

#### Why Consider a Computer Science Major?

Computer science is an exciting, growing, challenging field that is critical to many aspects of everyday life. As a computer scientist you can make an impact on the advancement of medicine, clean energy, entertainment, communication for the disabled, climate research, and automotive technologies to name a few. For some, the most motivational aspect of being a computer scientist is being involved in creating the next great technology that will help people the world over.

Apart from the compelling work you can do is the fact that computer scientists are highly sought after and can attain lucrative jobs directly out of college.

Anyone who enjoys abstract thinking and problem solving would most certainly appreciate computer science because the discipline is not just about programming. It is about the ways we organize data, solve problems, discover applications, and build devices and associated software that are effective and easy to use.

Contact Information		
<b>Department Information</b>	<b>CS Undergraduate Advisor</b>	<b>Transfer Advisor</b>
Communications Facility 495 360-650-3805	Mary Hall Communications Facility 360-650-2300 Mary.Hall@wwu.edu	James Johnson Communications Facility 467 360-650-3967 James.Johnson@wwu.edu
Sample Careers		
Computational Scientist   Computer Engineer   Data Scientist   Database Administrator   Educator   Game Programmer   IT Consultant   Network Engineer   Project Manager   Research Analyst   Robotics Programmer   Software Engineer   Systems Administrator   Systems Analyst   Systems Engineer   Technical Writer   User Experience Designer   Web Developer		
Major/Career Resources		

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[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Admission to the Computer Science BS major is a two-phase process. Students are classified as pre-majors until they have completed CSCI 141, CSCI 145, CSCI 241, CSCI 247 and CSCI 301 as well as MATH 124. Students are advised to declare a pre-major as soon as possible, ideally during the first year or immediately upon transfer to Western. Students may obtain pre-major status by contacting the Program Coordinator for Advising in CF 459 and completing the pre-major application.

Admission to the Computer Science major is based on students' academic performance in CSCI 241, CSCI 247 and CSCI 301. Students with a cumulative GPA of 2.7 or above in CSCI 241, CSCI 247 and CSCI 301 will be given preferential admission to the major. Students with a cumulative GPA below 2.7 will be considered for admission on a case by case basis.

The application to the computer science major includes an application form and a major declaration card. Students may declare a major by contacting the Program Coordinator for Advising in CF 459. Students should apply to the major by the 5th week of the quarter in which they will complete the pre-major courses. Upon being admitted to the major students will be assigned an academic advisor from the computer science faculty.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CSCI 141 - Computer Programming I
- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 247 - Computer Systems I
- CSCI 301 - Formal Languages and Functional Programming
- CSCI 305 - Analysis of Algorithms and Data Structures I
- CSCI 322 - Principles of Concurrent Programming
- CSCI 330 - Database Systems
- CSCI 345 - Object Oriented Design
- CSCI 352 - Unix Software Development
- CSCI 367 - Computer Networks I
- CSCI 405 - Analysis of Algorithms and Data Structures II
- CSCI 491 - Senior Project 1
- CSCI 492 - Senior Project 2
- CSCI 493 - Senior Project 3
- CSCI 495 - Capstone Seminar
- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- MATH 204 - Elementary Linear Algebra
- MATH 341 - Probability and Statistical Inference
- 16 credits chosen from the following, of which a maximum of 4 credits may be from CSCI 400 projects:
  - CISS 346 - Secure Software Development
  - CISS 421 - Computer Forensics
  - CSCI 321 - Game Programming
  - CSCI 342 - Web Scripting
  - CSCI 343 - Programming Workshop
  - CSCI 347 - Computer Organization II
  - CSCI 351 - Windows Software Development
  - CSCI 372 - Robotics: Applications of Artificial Intelligence
  - CSCI 380 - Numerical Computations
  - CSCI 397 - Special Topics

CSCI 400 - Directed Independent Study  
 CSCI 401 - Automata and Formal Language Theory  
 CSCI 402 - Artificial Intelligence  
 CSCI 404 - Natural Language Processing  
 CSCI 410 - Programming Languages  
 CSCI 412 - Mobile Device Programming  
 CSCI 415 - Parallel Computation  
 CSCI 424 - Social Network Analysis  
 CSCI 430 - Database Theory  
 CSCI 442 - Advanced Web Programming in Java  
 CSCI 450 - Compiler Theory and Design  
 CSCI 460 - Operating Systems  
 CSCI 461 - Computer Security  
 CSCI 462 - OS Device Drivers  
 CSCI 463 - Cyber Defense  
 CSCI 467 - Computer Networks II  
 CSCI 474 - Bioinformatics  
 CSCI 477 - Data Mining  
 CSCI 479 - Spoken Language Processing  
 CSCI 480 - Computer Graphics  
 CSCI 497 - Special Topics  
 CSCI 515 - Parallel Computation  
 CSCI 520 - Advanced Compiler Design  
 CSCI 525 - Advanced Topics in Operating Systems  
 CSCI 530 - Advanced Database Theory  
 CSCI 571 - Machine Learning Algorithms  
 CSCI 572 - Robotics  
 CSCI 573 - Computational Linguistics  
 CSCI 575 - Information Retrieval  
 CSCI 577 - Data Mining  
 CSCI 578 - Cryptography  
 CSCI 580 - Advanced Computer Graphics  
 CSCI 584 - Scientific Visualization  
 CSCI 585 - Image Processing  
 M/CS 335 - Linear Optimization  
 M/CS 375 - Numerical Computation  
 M/CS 435 - Nonlinear Optimization  
 M/CS 475 - Numerical Analysis

**NOTE:** Undergraduate students may take 500-level courses only if they have a GPA of at least 3.0 and instructor permission

□ A science sequence chosen from:

BIOL 204 - Introduction to Evolution, Ecology and Biodiversity  
 BIOL 205 - Introduction to Cellular and Molecular Biology  
 BIOL 206 - Introduction to Organismal Biology  
 OR  
 CHEM 121 - General Chemistry I  
 CHEM 122 - General Chemistry II  
 CHEM 123 - General Chemistry III  
 OR  
 GEOL 211 - Physical Geology  
 GEOL 212 - Historical Geology  
 and one of:  
 GEOL 303 - Dinosaurs and Their Environment  
 GEOL 308 - Earthquakes  
 GEOL 309 - Volcanology  
 GEOL 314 - Engineering Geology  
 GEOL 315 - Minerals, Energy and Society  
 GEOL 340 - Geological Oceanography  
 OR  
 PHYS 161 - Physics with Calculus I  
 PHYS 162 - Physics with Calculus II  
 PHYS 163 - Physics with Calculus III

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□ A minimum of 45 credits of mathematics and science content. This total includes 3 credits of mathematics content for CSCI 301 and 2 credits of mathematics content for CSCI 305. Select additional credits for mathematics or science content from the following. Courses taken to complete the mathematics and science content requirement may also be counted for credit in the Computer Science major.

ASTR 200-499

BIOL 200-499 (except BIOL 495, 496, 498)

CHEM 121, 122, 123 OR CHEM 125, 126, 225

CHEM 200-499 (except CHEM 405, 494)

CSCI 380 - Numerical Computations

GEOL 200-499 (except GEOL 204, 301, 401A, 401B)

M/CS 200-499

MATH 124 or equivalent

MATH 125 or equivalent

MATH 200-499 (except MATH 240, 245, 381, 382, 383, 419, 420, 483, 491)

PHYS 161 - Physics with Calculus I

PHYS 162 - Physics with Calculus II

PHYS 163 - Physics with Calculus III

PHYS 200-499 (except PHYS 419)

## Mathematics/Computer Science, BS (see Mathematics Department)

Mathematics/Computer Science, BS (see Mathematics Department)

## Master of Science

### Computer Science, Non-Thesis, MS

College of Science and Engineering

#### Graduate Faculty

**Bover, David C.**, PhD, software engineering, software quality assurance, computer security.

**Fizzano, Perry**, PhD, algorithms, optimization, bioinformatics.

**Hearne, James W.**, PhD, artificial intelligence, computational science.

**Hutchinson, Brian J.**, PhD, speech and language processing, machine learning, optimization.

**Johnson, James Lee**, PhD, probabilistic algorithms, database theory.

**Jusak, Debra S.**, PhD, distributed computing, middleware, embedded systems.

**Klein, Andrew G.**, PhD, signal and image processing, information theory, wireless networks, adaptive systems.

**Liu, Yudong**, PhD, natural language processing, applications of eye-tracking.

**Matthews, Geoffrey B.**, PhD, artificial intelligence, data mining, scientific visualization.

**Meehan, J. Michael**, PhD, parallel and distributed computing, programming languages, networks.

**Nelson, Philip A.**, PhD, parallel and distributed computing, compilers, operating systems.

**Rrushi, Julian**, PhD, cybersecurity, industrial control system security.

**Zhang, Jianna J.**, PhD, AI, machine learning, robotics, natural language processing.

Program Advisor: Philip A. Nelson

Send e-mail related to the graduate program in computer science to [gradinfo.cs@wwu.edu](mailto:gradinfo.cs@wwu.edu). For further information concerning the program, consult the departmental website at [cse.wwu.edu/computer-science](http://cse.wwu.edu/computer-science).

#### Goals

- To graduate students with a strong, in-depth background in computer science.
- To prepare students for PhD programs.
- To engage students in high quality research-oriented projects.

## Objectives

- ❑ To educate students in core concepts in computer science.
- ❑ To provide students with in depth knowledge, skills, and experiences in computer science.
- ❑ To focus on the applied aspects of computer science, especially real-world projects that use core concepts and expert knowledge of computer science.
- ❑ To provide students and faculty opportunities to engage in research in computer science.

## Prerequisites

Students who have completed an undergraduate degree and who meet the requirements of the Graduate School and who show evidence of superior scholarship are invited to apply for admission to the graduate program in computer science. Students may be admitted into the computer science master's degree program in one of three ways: full admit, full admit with prerequisite course work, and provisional admit. Students who have a sufficient background in computer science, i.e. an undergraduate degree in Computer Science, and who meet the general requirements of the Graduate School can be given a "full admit." Due to the nature of this field of study, it is often the case that students with an undergraduate degree in an area other than computer science seek admission to the graduate program in computer science. Such students usually require a number of prerequisite undergraduate courses before they can embark on their graduate studies. If they meet the other requirements of the Graduate School, such students can usually be given a "full admit with prerequisite course work." The student is admitted into the graduate program but is required to complete a number of undergraduate prerequisite courses. Other constraints may be placed on such admissions, such as a minimum acceptable grade(s) for the prerequisites and perhaps a time frame for completion of the prerequisites. The exact nature of the composition of the prerequisite course work will be determined on a case by case basis. In rare cases, students who do not meet the general requirements of the graduate school, for example do not have the required minimum GPA, can be given a "provisional admit" provided their background is such that it indicates a high probability of success in the program. In case of provisional admission, the program advisor may interview the candidate individually and consider the following factors:

1. Related background knowledge and work experience
2. Classes taken since graduation
3. Reference letters
4. GRE scores

## Application Information

**Admission Deadlines:** **Fall**, April 15; **Winter**, October 1; **Spring**, February 1.

**TA Deadlines:** Same as admission deadlines. Application requirements and forms are available from the Graduate School website.

**Test scores:** GRE General Test. An applicant with an advanced degree need not submit test scores. A statement of purpose is recommended.

## Program Requirements (58 credits)

### Core Curriculum

The core curriculum consists of four courses of 4 credits each.

- ❑ CSCI 509 - Operating System Internals
  - ❑ CSCI 510 - Automata and Formal Language Theory
  - ❑ CSCI 511 - Analysis of Algorithms
  - ❑ CSCI 512 - Design and Implementation of Computer Programming Languages
- These courses must be taken by all students in the MS in computer science program. These four courses should be scheduled during the first three terms the student is enrolled in the MS program or the first three terms following the completion of assigned prerequisite courses.

The following course must be taken by all students for a total of 6 credit hours.

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- ❑ CSCI 590 - Graduate Seminar

### **Qualifying Examination**

A qualifying exam covering CSCI 509, 510, 511, and 512 will be given to the student after completion of those courses. To be advanced to candidacy in the MS program in computer science the student must pass the qualifying exam. The student is responsible for requesting of the faculty that the qualifying exam be administered when the conditions have been met.

### **Advancement to Candidacy**

Students are advanced to candidacy when they have demonstrated a reasonable likelihood of completing their program of study. The student must have completed the core curriculum courses with a B or better GPA and must have passed the qualifying exam. Students are recommended for candidacy by the Graduate Committee.

### **Elective Courses**

If possible, the student should take elective courses in support of their area of research.

### **Research Experience**

In addition to the four core courses and six elective courses, all students in the MS in computer science program are required to take three research experience courses. The student should register for one of these courses each of the last three terms of study in the MS program. The three research experience courses are tied to one of a number of ongoing projects in the computer science department. Effectively, the student is joining that research team effort by registering for these courses. As such, the student should discuss their intentions with the faculty members involved in that project prior to registering for these courses. The research experience courses are numbers CSCI 601, CSCI 602 and CSCI 603. The student must take the qualifying exam no later than the quarter in which the student is registered for CSCI 601. To receive credit for CSCI 603, the student must write a research paper that is submitted to a refereed conference or journal with advisor approval.

### **Total Credit Hours Required for the MS Degree in Computer Science**

Core Courses: 4 courses x 4 credits = 16 credits Graduate Seminar: Variable, 3 to 6 credit hours Elective Courses: 6 courses x 4 credits = 24 credits Research Experience Courses: 3 courses x 4 credits = 12 credits Total: 58 credits

## Additional Information

### **Five-Year BS And MS Fast Track Program**

For students who complete their undergraduate study in computer science at WWU there is an option by which at the end of only one additional year of study past the BS degree they will have completed all requirements for the MS degree. To participate in this program, a student must request enrollment in the undergraduate honors program in computer science. To be admitted to this program, the student must have an overall GPA of 3.0 and a GPA of 3.0 in all undergraduate computer science classes. Students should apply for admission into the undergraduate honors program during the junior year of study. Once admitted to this program, the student will take CSCI 509-512 while an undergraduate. These courses will substitute for four senior-level courses the student would normally take as an undergraduate. The course substitutions are: CSCI 509 replaces CSCI 460, CSCI 510 replaces CSCI 401, CSCI 511 replaces CSCI 405, CSCI 512 replaces CSCI 410. A student must maintain an overall GPA of 3.0 in these courses.

After students graduate with the BS degree in the computer science honors program, they then will complete 6 graduate electives, 3 credit hours of CSCI 590, and CSCI 601, CSCI 602 and CSCI 603.

Registering for three courses per term, it is possible to complete all MS requirements in only one additional year. When a student enters the MS program via this path, the qualifying exam will be given during their first term as a graduate student.

### **Total Credit Hours Required for the Fast Track MS Degree in Computer Science**

Elective Courses: 6 courses x 4 credits = 24 credits Graduate Seminar: 3 credit hours Research Experience Courses: 3 courses x 4 credits = 12 credits Total: 39 credit



# Minor

## Computer Science Minor

Department of Computer Science, College of Science and Engineering

**34-35 credits**

### Why Consider a Computer Science Minor?

Computer Science is transforming the world we live in and having an impact in every industry worldwide. The CS minor gives a solid introductory foundation in computer science theory, applications, and systems software. Having a basic understanding of computer science and computer programming improves employment rates for all other majors.

#### Contact Information

##### Program Coordinator

Mary Hall  
 Communications Facility 459  
 360-650-2300  
 Mary.Hall@wwu.edu

#### Sample Careers

Software developer

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Application forms are available through the Computer Science department.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CSCI 141 - Computer Programming I
- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 247 - Computer Systems I
- CSCI 301 - Formal Languages and Functional Programming
- CSCI 330 - Database Systems
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics
- One upper-division computer science or math/computer science course of at least 4 credit hours

## Computer Systems Minor

Department of Computer Science, College of Science and Engineering

**29 credits**

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## Why Consider a Computer Systems Minor?

This minor is intended for electrical engineering students to give them more experience in computer science and software engineering.

### Contact Information

#### Program Coordinator

Mary Hall

Communications Facility 459

360-650-2300

Mary.Hall@wwu.edu

### Sample Careers

Computer systems engineer

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Application forms are available through the Computer Science department.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 247 - Computer Systems I
- CSCI 322 - Principles of Concurrent Programming
- CSCI 345 - Object Oriented Design
- CSCI 347 - Computer Organization II
- CSCI 352 - Unix Software Development
- CSCI 367 - Computer Networks I

## Internet Resource Creation and Management Minor

Department of Computer Science, College of Science and Engineering

### 28-29 credits

### Introduction

The Internet Studies Center (ISC) provides a number of courses leading to a minor in web development called the Internet Resource Creation and Management Minor. Students in any field of study can learn or advance their skills in web development through this minor.

## Why Consider an Internet Resource and Creation Management Minor?

The Internet Resource and Creation Management Minor is designed to teach students how to create websites using current tools and technology. The minor also includes required coursework from the Communications and English or Journalism departments to help students develop their technical writing abilities. The minor will complement courses taken in a regular degree program.

Participation in a professional internship will provide an opportunity to enhance project management, web development and team communication skills. With the minor from the Internet Studies Center and a four-year

degree, students will have knowledge needed to contribute and adapt to today's rapidly changing technical environment.

#### Contact Information

##### Program Coordinator

Mary Hall  
Communications Facility 459  
360-650-2300  
Mary.Hall@wwu.edu

##### Program Director (Interim)

James Hearne  
Communications Facility 479  
360-650-3792  
James.Hearne@wwu.edu

#### Sample Careers

Web content provider | Web content writers | CSS developer | Web design director | Web designer | Front end developer | Information architect | Interaction designer | SEO professionals | UI designer | UX designer | Web animation creator | Web designer | And a number of other jobs related to providing content on web pages.

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Application forms are available through the Computer Science Department Advising Office, CF 459.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CSCI 102 - Computer-Mediated Communications
- CSCI 202 - Dynamic Web Pages
- CSCI 403 - Internship in Internet Studies
- MIS 314 - Fundamentals of Web Site Development and Management
- COMM 318 - Professional Communication
- Choose Either:
  - ENG 302 - Introduction to Technical and Professional Writing
  - ENG 402 - Advanced Technical and Professional Writing
  - or
  - JOUR 207 - Newswriting
  - JOUR 309 – Editing

### User Experience (UX) Design Minor (see Engineering and Design Department)

User Experience (UX) Design Minor (see Engineering and Design Department)

## WWU Certificate (Non-Degree)

### Content Development Certificate

Department of Computer Science, College of Science and Engineering

**22-27 credits**

#### Introduction

The most important component of a web page is its content, and if the technology behind a web page does not help delivering relevant content, the reader will leave the page. Through the Web Content Development

# COMPUTER SCIENCE

curriculum, students will learn how to create relevant information and present it effectively to the Web page readers.

## Why Consider a Certificate in Content Development?

The Web Content Development Certification is a good choice for students with a major that naturally lends itself to content creation such as Communications, Design, English, Journalism or Marketing. In addition to four Internet Studies Center (ISC) core courses, content developers must take two or three other courses depending upon their academic major.

### Contact Information

#### Program Coordinator

Mary Hall  
Communications Facility 459  
360-650-2300  
Mary.Hall@wwu.edu

#### Program Director

Martin Granier  
Communications Facility 487  
360-650-6879  
Martin.Granier@wwu.edu

### Sample Careers

Art director | Content strategist | Content writers | CSS developer | Design director | Freelance web designer | Front end developer | Information architect | Interaction designer | SEO professionals | UI designer | UX designer | Web animation creator | Web designer | and a number of other jobs related to providing content on web pages

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

After completion of CSCI 202 and MIS 314, students can apply to earn ISC certificates. Applications are available through the Computer Science department.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Program Requirements

Students interested in receiving a Content Development Certificate must take the following four core courses plus a minimum of eight credits of content-oriented courses depending on their academic major, as shown below:

### Core Requirements

- CSCI 102 - Computer-Mediated Communications
- CSCI 202 - Dynamic Web Pages
- CSCI 403 - Internship in Internet Studies
- MIS 314 - Fundamentals of Web Site Development and Management

### Content Oriented Requirements

#### Communication Studies Major

- COMM 244 - Advocacy Through Media
- COMM 318 - Professional Communication

#### Design Major

- DSGN 360 - Digital Media Design I
- DSGN 361 - Digital Media Design II

**English Major**

- ENG 302 - Introduction to Technical and Professional Writing
- ENG 402 - Advanced Technical and Professional Writing

**Journalism Major**

- JOUR 305 - Photojournalism
- JOUR 309 - Editing
- JOUR 330 - Principles of Public Relations

**Marketing Major**

- MKTG 476 - Digital Marketing
- MKTG 483 - Integrated Marketing Communications

Other majors - please contact the Internet Studies Center (ISC) director

**E-Commerce Developer Certificate**

Department of Computer Science, College of Science and Engineering

**22 credits****Introduction**

The study of E-commerce covers the many technologies involved with conducting business over the Internet. For example, it includes working with shopping carts and Web services and developing E-commerce sites. It also involves learning various ways to conduct business online and to manage the technical issues associated with constructing an e-commerce Web site.

**Why Consider a Certificate in E-Commerce?**

This Internet Studies Center (ISC) certificate is designed to teach students how to build and manage data-driven web sites, through specialized courses offered by the Management Information Systems program in the College of Business and Economics. The E-commerce certificate provides students with the knowledge, context and necessary skills to prepare them for conducting business using information technology and the Internet.

**Contact Information****Program Coordinator**

Mary Hall  
 Communications Facility 459  
 360-650-2300  
 Mary.Hall@wwu.edu

**Program Director**

Martin Granier  
 Communications Facility 487  
 360-650-6879  
 Martin.Granier@wwu.edu

**Sample Careers**

E-commerce professional | Webmaster | Web application developer | Web content manager | Content writer | SEO specialist | Web developer | Database programmer | and a number of other Web-related jobs concerned with web management and e-commerce

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

After completion of CSCI 202 and MIS 314, students can apply to earn ISC certificates. Applications are available through the Computer Science department.

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## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Program Requirements

- CSCI 102 - Computer-Mediated Communications
- CSCI 202 - Dynamic Web Pages
- CSCI 403 - Internship in Internet Studies
- MIS 314 - Fundamentals of Web Site Development and Management
- MIS 324 - Intermediate Web Site Development and Management
- MIS 424 - E-Commerce Systems Management

## Web Programming Certificate

Department of Computer Science, College of Science and Engineering

### 22 credits

### Introduction

Web programming refers to all the tasks involved in Web development, including the creation of Web content and the necessary coding of Web clients and Web servers.

The client side deals with the needs for the user to access data and provide relevant information while the server side is concerned about data retrieval, security and performance. To achieve those tasks, Web programmers work with a variety of scripting tools and database technology.

### Why Consider a Certificate in Web Programming?

The Web Programming Certification provides the skills necessary for Web content delivery, including database analysis and design, as well as client and server-side scripting methods and languages.

An Internet Studies Center (ISC) certificate in Web Programming documents the fact that a student is knowledgeable in a variety of technologies currently used in Web development. Students who complete the required courses for the Web Programming certificate will be able to create and manage both client applications and server side programs including databases. This certificate is primarily targeted at computer science majors.

### Contact Information

#### Program Coordinator

Mary Hall  
Communications Facility 459  
360-650-2300  
Mary.Hall@wwu.edu

#### Program Director

Martin Granier  
Communications Facility 487  
360-650-6879  
Martin.Granier@wwu.edu

### Sample Careers

Web developer | Web programmer | Web application developer | Database programmer | Full stack developer and a number of other web-related programming jobs

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

After completion of CSCI 202 and MIS 314, students can apply to earn ISC certificates. Applications are available through the Computer Science department.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Program Requirements

- CSCI 102 - Computer-Mediated Communications
- CSCI 202 - Dynamic Web Pages
- CSCI 342 - Web Scripting
- CSCI 403 - Internship in Internet Studies
- CSCI 442 - Advanced Web Programming in Java
- MIS 314 - Fundamentals of Web Site Development and Management

## Computer Science Courses

### CSCI 101 - Computers and Applications

Study of computers, computer systems, and computer applications. Computer hardware and software fundamentals. Networking, telecommunications, and the Internet. Hands-on experience with a variety of standard computer applications. Computer-related social and ethical issues. Lab.

**Credits:** 4  
**Grade Mode:** Letter

### CSCI 102 - Computer-Mediated Communications

Internet skills, with an emphasis on the Internet as a medium of political and business communication, research, cultural exchange and worldwide collaboration. Basic principles of effective website organization and design. Topics include copyright, netiquette, network protocols, HTML, CSS, graphics, website design and electronic commerce. Lab.

**Prerequisites & Notes:** Basic computer literacy.  
**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### CSCI 103 - Introduction to Computer Game Development

An introduction to computer game development for students with no programming background. Students use game development software to develop games of varying complexity, including graphics and sound, and extend to more complex games through the use of scripts.

**Prerequisites & Notes:** basic computer literacy, use of keyboard and mouse

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

### CSCI 104 - Software Installation, Operation and Configuration of Personal Computer Systems

Overview of computer hardware components. Installing and configuring Windows operating system. Installing and configuring the Linux operating system. Open source software installation. Each student will receive a licensed copy of the current MS Windows operating system and all Microsoft Development Tools (language compilers etc.) which may be used on their own personal computer.

**Credits:** 4  
**Grade Mode:** Letter

### CSCI 120 - Exploring Computer Science

Course exposes students to a variety of computer science problems and applications in a novel, fun, interesting and challenging fashion. Elementary programming skills, problem solving ability, and communications skills will be developed. Excellent course for those who have an interest in the field but no previous background.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 3  
**Grade Mode:** Letter

### CSCI 138 - Programming Fundamentals in Visual Basic

Intended for students wishing to acquire programming skills in connection with natural science or technology. Basic concepts of computer programming using the Visual Basic programming language. Topics include introduction to development environment, introduction to computer architecture, and language elements such as control structures, functions, basic I/O, one-dimensional and parallel arrays, text file I/O,

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and user-interface design. Emphasis on algorithm development, program solving, and software engineering. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** Math 112 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **CSCI 140 - Programming Fundamentals in C++**

Intended for students wishing to acquire programming skills in connection with a natural science or technology. Basic concepts of computer programming using the C++ programming language. Topics covered: introduction to computer architecture, and elements of a language such as control structures, functions, basic I/O, one dimensional and parallel arrays, text file I/O. Algorithm development, problem solving and software engineering are emphasized. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** MATH 112 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **CSCI 141 - Computer Programming I**

Intended for students majoring in computer science. Basic concepts of computer programming using an object oriented programming language. Topics covered: introduction to the development environment, introduction to algorithms, elements of a programming language, including data types, packages, control structures, procedures and functions, basic input and output, arrays and records, text files, strings, variant records. Algorithm development, problem solving and software engineering are emphasized. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** One of: MATH 112, MATH 114, MATH 115, MATH 118, MATH 124, MATH 125, MATH 134, MATH 138, MATH 156.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **CSCI 145 - Computer Programming and Linear Data Structures**

Abstract data types, generics, access or pointer types, dynamic memory allocation, recursion, concurrent programming and linear data

structures, including stacks, lists and queues. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** CSCI 141 or equivalent; any of : MATH 115, MATH 118, MATH 124

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **CSCI 172 - Introduction to Robotics**

This course provides an introduction to robotics for students with no programming background. Lego Mindstorms Team Challenge Set is used to build the robots. Students will learn to construct, control and program these robots. Students will gain first-hand experience in quantitative and symbolic reasoning through the course of learning.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **CSCI 202 - Dynamic Web Pages**

Principles and technologies required to produce and distribute Internet ( World Wide Web) content, with a focus on site architecture and client-side dynamic pages; an introduction to server-side processing.

**Prerequisites & Notes:** CSCI 102 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 241 - Data Structures**

Design and implementation of hash tables, general trees, search trees, balanced trees and graphs. Comparison of sorting algorithms. Demonstration of the use of data structures in various applications. Evaluation of the best data structure for a particular task. Programming is required in implementation of concepts.

**Prerequisites & Notes:** CSCI 145; MATH 124 or MATH 157.

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 247 - Computer Systems I**

An overview of basic computer organization and design. Introduction to C programming. Topics covered include data representation, boolean algebra, machine language, instruction sets, processor architecture, multi-processors, system-level I/O, pipelining, and the memory hierarchy. Includes lab.



**Prerequisites & Notes:** CSCI 145.

**Credits:** 5

**Grade Mode:** Letter

### **CSCI 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **CSCI 301 - Formal Languages and Functional Programming**

Introduction to discrete structures important to computer science, including sets, trees, functions, and relations. Proof techniques. Introduction to the formal language classes and their machines, including regular languages and finite automata, context free languages and pushdown automata. Turing machines and computability will be introduced. Programming using a functional language is required in the implementation of concepts. Includes lab.

**Prerequisites & Notes:** CSCI 145.

**Credits:** 5

**Grade Mode:** Letter

### **CSCI 302 - Adv Internet Resources w/lab**

Introduction to discrete structures important to computer science, including sets, trees, functions, and relations. Proof techniques. Introduction to the formal language classes and their machines, including regular languages and finite automata, context free languages and pushdown automata. Turing machines and computability will be introduced. Programming using a functional language is required in the implementation of concepts. Includes lab.

**Prerequisites & Notes:** CSCI 202 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 305 - Analysis of Algorithms and Data Structures I**

Introduction to the analysis of algorithms and data structures in a mathematically rigorous fashion. Mathematical fundamentals, counting, discrete probability, asymptotic notation, recurrences, loop invariants. Worst-case, probabilistic and amortized analysis techniques applied to sorting algorithms and classic data structures such as heaps, trees

and hash tables. Design techniques such as branch and bound, divide and conquer, will be introduced as will correctness proofs for algorithms.

**Prerequisites & Notes:** CSCI 241; CSCI 301.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 321 - Game Programming**

Introduction to the basics of game design and implementation. Game worlds, storytelling, character development and the user experience. Programming audio, 2D and 3D graphics basics. Networking basics. Game artificial intelligence. Game genres: action, strategy, role-playing, sports, vehicles, simulations, adventure.

**Prerequisites & Notes:** CSCI 241.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 322 - Principles of Concurrent Programming**

Principles of concurrent programming. Algorithms for mutual exclusion. Synchronization and communication techniques: semaphores; monitors; rendezvous; conditional critical regions. Multi-process and multi-threaded programming. Concurrent programming facilities in HLL's.

**Prerequisites & Notes:** CSCI 247.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 330 - Database Systems**

An introduction to the underlying data models and theory of database systems and the design, implementation and manipulation of relational databases.

**Prerequisites & Notes:** CSCI 241

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 342 - Web Scripting**

For CSCI majors and nonmajors seeking Web programmer certification from the Internet Studies Center. Development of dynamic Web applications. Study of various server-side scripting languages (PHP, Perl, Python, Ruby on Rails) for creating dynamic Web pages and querying and manipulating Databases on the Web.

**Prerequisites & Notes:** CSCI 330.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 343 - Programming Workshop**

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A review of standard algorithmic techniques and practice in their rapid application to information processing problems, especially in a team setting. Preparation for participation in regional and national programming competition. May be repeated once for credit.

**Prerequisites & Notes:** CSCI 345.

**Credits:** 1

**Grade Mode:** Letter

### **CSCI 345 - Object Oriented Design**

Introduction to Object-Oriented Software Design, including concepts of encapsulation, modularity, coupling and cohesion. Use of Unified Modeling Language (UML) in design documentation. Introduction to the concept of design patterns and exposure to some commonly used design patterns.

**Prerequisites & Notes:** CSCI 241

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 347 - Computer Organization II**

Pentium assembly language programming, interfacing assembly language programs to high-level languages, memory design, cache memory, virtual memory, I/O interfacing and communication, interrupts.

**Prerequisites & Notes:** CSCI 227 or ETEC 273; CSCI 241

**Credits:** 3

**Grade Mode:** Letter

### **CSCI 351 - Windows Software Development**

The design and development of event driven programming using Visual C#.NET. Use of .NET Framework libraries. Creation of Windows based applications using forms, controls, and GDI+. Design of graphical user interfaces and Visual Studio development tools. Working with LINQ and Windows Presentation Foundation (WPF). Programming using XAML. Study of XML Schema Documents, Extensible Stylesheet Language and XSL Transformations.

**Prerequisites & Notes:** CSCI 345

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 352 - Unix Software Development**

The design and development of systems and programs in the Unix environment. Unix operating system fundamental concepts. Unix standards and implementations. System data files. Environment of a Unix process. Unix programming at the system call level. File and terminal I/O, processes,

interprocesses communication and signals.

Introduction to shell programming, standard Unix development tools and system utilities: awk, m4, cc, lint, make, sed, grep, and others.

**Prerequisites & Notes:** CSCI 241 and CSCI 247

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 367 - Computer Networks I**

Introduction to computer networks; network architecture and design; protocols, management, physical networks; implementation of network protocols, programming projects in protocol usage and applications.

**Prerequisites & Notes:** CSCI 241 and CSCI 247

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 372 - Robotics: Applications of Artificial Intelligence**

Basic robot design, RobotC programming, reinforcement learning, genetic algorithms, and artificial neural network concepts will be covered. Course is designed for undergraduate students who are interested in robotics and artificial intelligence applications. Students who have previous robotics and/or programming experience are encouraged to take this course.

**Prerequisites & Notes:** Permission of Instructor.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 380 - Numerical Computations**

Computer arithmetic and error analysis, roots of nonlinear equations, solution of system of linear and nonlinear equations, numerical differentiation, numerical quadrature, approximation theory, initial and boundary value problems.

**Prerequisites & Notes:** CSCI 241, MATH 204

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**CSCI 401 - Automata and Formal Language Theory**

Introduction to advanced topics in formal language and automata theory. Turing machines and other language classes including context-sensitive grammars and unrestricted grammars. Practical applications of formal languages will be introduced.

**Prerequisites & Notes:** CSCI 301.

**Credits:** 4

**Grade Mode:** Letter

**CSCI 402 - Artificial Intelligence**

Introduction to knowledge representation and search. Possible application areas include natural language, perception, learning and expert systems.

**Prerequisites & Notes:** CSCI 301

**Credits:** 4

**Grade Mode:** Letter

**CSCI 403 - Internship in Internet Studies**

Supervised and fully documented Web-based project with an approved business, government agency or not-for-profit organization.

**Prerequisites & Notes:** Only for ISC minors, or students seeking ISC certification. CSCI 202, MIS 314, senior status and permission of instructor; minimum GPA of 2.7.

**Credits:** 3

**Grade Mode:** Letter

**CSCI 404 - Natural Language Processing**

Fundamental concepts and ideas in natural language processing (NLP), and current research in the area; algorithms available for the processing of linguistic information and the underlying computational properties of natural languages. Word level, syntactic, and semantic processing from both a linguistic and an algorithmic perspective are considered. The focus is on modern quantitative techniques in NLP: using large corpora, including the web, statistical models for acquisition, disambiguation, and parsing.

**Prerequisites & Notes:** CSCI 301 or Junior status in Linguistics

**Credits:** 4

**Grade Mode:** Letter

**CSCI 405 - Analysis of Algorithms and Data Structures II**

Derivation of time and space complexity of algorithms. Typical algorithms investigated include minimum spanning tree, shortest path, network flow and string matching. Advanced treatment of

dynamic programming, greedy algorithms and randomized algorithms. Discussion of NP-Completeness. Correctness proofs of algorithms.

**Prerequisites & Notes:** CSCI 305

**Credits:** 4

**Grade Mode:** Letter

**CSCI 410 - Programming Languages**

Introduction to the structure of programming languages; syntax and semantics; properties of algorithmic languages; special purpose languages.

**Prerequisites & Notes:** CSCI 301.

**Credits:** 4

**Grade Mode:** Letter

**CSCI 412 - Mobile Device Programming**

Design and development of applications for the mobile environment. Android platform, tools for Android development, UI design, mobile application distribution systems.

**Prerequisites & Notes:** CSCI 330 and CSCI 367

**Credits:** 4

**Grade Mode:** Letter

**CSCI 415 - Parallel Computation**

Parallel Computation Architectures; Parallel Algorithm Design and Analysis; Parallel Computing Languages. Projects requiring the implementation of several parallel algorithms will be required.

**Prerequisites & Notes:** CSCI 305, CSCI 322, CSCI 352 and CSCI 367

**Credits:** 4

**Grade Mode:** Letter

**CSCI 424 - Social Network Analysis**

Mapping and measuring of relationships and flows between people, groups, organizations, computers, URLs, and other connected information/knowledge entities.

**Prerequisites & Notes:** MATH 204, MATH 341 and CSCI 241

**Credits:** 4

**Grade Mode:** Letter

**CSCI 430 - Database Theory**

Data models and their access languages. Design issues: ER diagrams, functional dependency analysis and normalization. Database programming.

**Prerequisites & Notes:** CSCI 301 and CSCI 330.

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**Credits:** 4

**Grade Mode:** Letter

## **CSCI 442 - Advanced Web Programming in Java**

For CSCI majors and nonmajors seeking Web programming certification from the Internet Studies Center. Advanced network, applet, and server applications in Java. GUIs, Web spiders and Web search algorithms, security, remote method invocation and Java Beans.

**Prerequisites & Notes:** CSCI 342; CSCI 351 recommended.

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 450 - Compiler Theory and Design**

Theory and practice of compiler design. Emphasis is on basic theory and methods necessary to design and implement a functional syntax directed compiler.

**Prerequisites & Notes:** CSCI 301

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 460 - Operating Systems**

Principles of operating systems; concurrent processes; resource management; process management; file systems; protection.

**Prerequisites & Notes:** CSCI 322 and CSCI 352

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 461 - Computer Security**

An overview of computer security and detailed study of the theoretical foundations and practical implementations of some aspects of security, including policy specification, the role of cryptography, policy implementation and assurance, security threats and counter-measures.

**Prerequisites & Notes:** CSCI 301; CSCI 367 is recommended.

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 462 - OS Device Drivers**

Operating System kernel programming, system call mechanisms, system call processing, file system internals, device drivers, interrupt processing, methods for controlling hardware from software. Includes study and augmentation of real Operating Systems, both open-source and closed-source.

**Prerequisites & Notes:** CSCI 460.

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 463 - Cyber Defense**

Seminars and practical exercises to prepare students for the Collegiate Cyber Defense Competition. Repeatable up to 3 credits.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1

**Grade Mode:** S/U

## **CSCI 467 - Computer Networks II**

Advanced computer networks. Applications including Internet and distributed computing.

**Prerequisites & Notes:** CSCI 367

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 474 - Bioinformatics**

Interdisciplinary view of Bioinformatics is presented in a seminar style. Sequence alignment, scripting languages, databases, phylogenetics, genomics, proteomics and select advanced topics are covered from a variety of disciplinary perspectives. Students give presentations and participate in a significant group project. Intended for juniors and seniors in CSCI, BIOL, MATH, CHEM who have some relevant course experience and interest in this emerging discipline.

**Prerequisites & Notes:** Permission of Instructor.

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 477 - Data Mining**

Techniques for extracting useful information from large data sets; attribute-value learning techniques (decision trees, association rules); relational mining techniques (inductive logic programming, efficient search of relational spaces); probabilistic techniques (Bayesian networks, conditional independence); statistical techniques; sampling strategies; applications in bioinformatics, personalization, information retrieval, web modeling, filtering, and text processing.

**Prerequisites & Notes:** MATH 204, MATH 341 and CSCI 241

**Credits:** 4

**Grade Mode:** Letter

## **CSCI 479 - Spoken Language Processing**

Introduction to the automatic processing of spoken language. Fundamental theory and algorithms in

speech processing, including speech analysis, recognition and synthesis, as well as the linguistic and mathematical theory on which spoken language processing systems rely. Implementation of spoken language processing systems is required.

**Prerequisites & Notes:** CSCI 301 or instructor permission; MATH 341 or instructor permission; CSCI 305 or instructor permission with concurrency.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 480 - Computer Graphics**

Overview of the hardware, software, and techniques used in computer graphics; raster display devices; input devices; display files, 2D and 3D transformations; windowing, clipping; simple surface rendering.

**Prerequisites & Notes:** CSCI 241 and MATH 204

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 491 - Senior Project 1**

Students work in teams on a software project or research project under the guidance of faculty and possibly industry sponsors. Lecture/discussion topics may include: software development life-cycle, project management, software design, software testing, research methodologies.

**Prerequisites & Notes:** Department permission

**Credits:** 3

**Grade Mode:** Letter

### **CSCI 492 - Senior Project 2**

Students work in teams on a software project or research project under the guidance of faculty and possibly industry sponsors. Lecture/discussion topics may include: software development life-cycle, project management, software design, software testing, research methodologies.

**Prerequisites & Notes:** CSCI 491

**Credits:** 3

**Grade Mode:** Letter

### **CSCI 493 - Senior Project 3**

Students work in teams on a software project or research project under the guidance of faculty and possibly industry sponsors. Lecture/discussion topics may include: software development life-cycle, project management, software design, software testing, research methodologies.

**Prerequisites & Notes:** CSCI 492

**Credits:** 3

**Grade Mode:** Letter

### **CSCI 494 - Professional Work Experience**

Academic credit awarded for employment in industry. Students are required to keep a journal and to submit a written report. See Department of Computer Science for information. S/U grading.

**Prerequisites & Notes:** 30 credits in CSCI; minimum 2.7 GPA; department permission.

**Credits:** 4

**Grade Mode:** S/U

### **CSCI 495 - Capstone Seminar**

This course consists of a ten week review of the required undergraduate program in Computer Science, culminating in the Major Field Test which is required of all Computer Science Majors.

**Prerequisites & Notes:** Final quarter in the Computer Science major.

**Credits:** 1

**Grade Mode:** Letter

### **CSCI 496 - Undergraduate Research**

Student will work on an undergraduate research project under the supervision of a permanent faculty member.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 1-4

**Grade Mode:** S/U

### **CSCI 498 - Teaching Practicum**

Classroom experience in computer science teaching. Students will assist faculty in laboratory settings. Repeatable for a maximum of 4 cr.

**Prerequisites & Notes:** Senior status and permission of department.

**Credits:** 2

**Grade Mode:** Letter

### **CSCI 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **CSCI 509 - Operating System Internals**

## COMPUTER SCIENCE

An intensive study of operating systems through examination of and experimentation with kernel source code for a modern open-source operating system. Aspects of operating systems to be investigated include process management, resource management, memory allocation, file systems and kernel services.

**Prerequisites & Notes:** CSCI 322, CSCI 352, CSCI 367  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 510 - Automata and Formal Language Theory**

Advanced treatment of formal languages and automata; finite state machines; stack machines and Turing Machines; the Chomsky hierarchy; regular, context free, context sensitive languages, recursively enumerable languages.

**Prerequisites & Notes:** CSCI 301 or equivalent  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 511 - Analysis of Algorithms**

Systematic study of algorithms and their complexity, searching and sorting, pattern matching, geometric and graph algorithms, NP-complete and intractable problems.

**Prerequisites & Notes:** CSCI 305  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 512 - Design and Implementation of Computer Programming Languages**

Evaluation of programming language features, classification of programming languages in terms of expressiveness, complexity, uniformity and orthogonality. Cost of implementing and using programming language in view of compilation and run-time environments. Mapping of programming language features onto computer architectures. Alternative programming methodologies: functional paradigm, imperative programming, logic programming, data flow programming, explicit and implicit concurrency models.

**Prerequisites & Notes:** CSCI 510.  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 513 - Systems Programming and Operating Systems Internals**

Systems software such as linkers, loaders, system utility software and operating system internals. Investigation of real operating systems,

augmentation or modification of the operating system source code. Process creation and management; interprocess communication; process scheduling; I/O hardware and software; memory management; file system design and implementation; security and protection mechanisms.

**Prerequisites & Notes:** CSCI 352 or CSCI 460.  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 514 - Research Methodology in Computer Science**

Research methodology topics identified as appropriate, emphasizing basic and applied research skills. This course will have research as its primary focus and will be taught by persons with research competencies and interests. Course content includes preparation of research studies, reports, and papers. Students are expected to generate a research or survey paper on their own research topic as a final project.

**Prerequisites & Notes:** Graduate Status.  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 515 - Parallel Computation**

Topics in concurrent and parallel computation. Possible areas include formal specification methods for parallel systems, semantics and verification of parallel language programs, and analysis and implementation of parallel algorithms.

**Prerequisites & Notes:** CSCI 510.  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 520 - Advanced Compiler Design**

Theory and practice of compiler design. Detailed consideration of efficient parsing techniques; organization of semantic analysis and code generation phases; machine dependent and independent optimization techniques; organization of run time environment.

**Prerequisites & Notes:** CSCI 510.  
**Credits:** 4  
**Grade Mode:** Letter

### **CSCI 525 - Advanced Topics in Operating Systems**

Various topics as they relate to distributed operating systems. Case study using a distributed operating system to perform experiments in class laboratory.

**Prerequisites & Notes:** CSCI 460 or CSCI 513.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 527 - Embedded Systems**

Design and development of embedded microprocessors in instrumentation, controls, and user appliances.

**Prerequisites & Notes:** CSCI 509

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 530 - Advanced Database Theory**

Advanced topics in database systems. Possible areas include transaction processing, concurrency control, recovery, security, query optimization, distributed systems, and logic-based systems.

**Prerequisites & Notes:** CSCI 430 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 570 - Artificial Intelligence**

Advanced topics in artificial intelligence. Possible areas include knowledge representation, LISP or PROLOG, search strategies, heuristics, goal refinement, theorem proving, and symbolic problem solving.

**Prerequisites & Notes:** Graduate student status or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 571 - Machine Learning Algorithms**

Covers important machine learning research areas such as artificial neural nets, Bayesian learning, data mining, decision tree learning, evolutionary computation, reinforcement learning, version space learning, rough sets, and computational learning theory. Algorithms from these research areas will be analyzed. Each student will select one of the learned algorithms and apply it to the term project.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 572 - Robotics**

The materials of this class cover from hardware to software according to students' need and available instructors. Each offer of the class will select one of the two (hardware and software) research areas or a combination of them. The syllabus includes, but is not limited to, architectures, navigation, and

motion planning, control, vision, synthesizing, and algorithm design. Students will gain firsthand experience by working on a small robot. They will design algorithms or manipulate the hardware to make the robot do or learn a certain task.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 573 - Computational Linguistics**

Formal and computational models of the syntax, semantics and pragmatics of natural languages; rival approaches to semantic and pragmatic representation; applications to database queries and machine translation.

**Prerequisites & Notes:** CSCI 401 or CSCI 510.

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 575 - Information Retrieval**

Index construction, vector space model, evaluation of relevance in IR systems, text classification, clustering, machine learning approaches to IR, applications to web search, current research topics.

**Prerequisites & Notes:** CSCI 511

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 577 - Data Mining**

Techniques for extracting useful information from large data sets; attribute-value learning techniques (decision trees, association rules); relational mining techniques (inductive logic programming, efficient search of relational spaces); probabilistic techniques (Bayesian networks, conditional independence); statistical techniques; sampling strategies; applications in bioinformatics, personalization, information retrieval, web modeling, filtering, and text processing.

**Prerequisites & Notes:** CSCI 510, CSCI 511

**Credits:** 4

**Grade Mode:** Letter

### **CSCI 578 - Cryptography**

Selected topics from number theory; simple, homophonic, polyalphabetic substitution ciphers; product ciphers, DES; exponentiation ciphers; knapsack ciphers; key management.

**Prerequisites & Notes:** CSCI 509.

**Credits:** 4

**Grade Mode:** Letter

## COMPUTER SCIENCE

### CSCI 579 - Spoken Language Processing

Introduction to the automatic processing of spoken language. Fundamental theory and algorithms in speech processing, including speech analysis, recognition and synthesis, as well as the linguistic and mathematical theory on which spoken language processing systems rely. Implementation of spoken language processing systems is required.

**Prerequisites & Notes:** CSCI 510, MATH 341 and CSCI 511 or concurrent; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### CSCI 580 - Advanced Computer Graphics

Three-dimensional concepts, shading techniques, curves and surfaces, ray tracing, radiosity, texture mapping, fractals.

**Prerequisites & Notes:** CSCI 480 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### CSCI 584 - Scientific Visualization

Introduction to the computer display of scientific datasets. Topics include visualizing 2D and 3D scalar and vector fields, visualizing nonlinear relationships, and user interface design.

**Prerequisites & Notes:** CSCI 480 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### CSCI 585 - Image Processing

Digital image fundamentals, image transforms, image enhancements, image restoration, image encoding, representation and description, color image processing, morphological operations.

**Prerequisites & Notes:** CSCI 480.

**Credits:** 4

**Grade Mode:** Letter

### CSCI 590 - Graduate Seminar

Students are expected to present and discuss state-of-the-art computer science research papers in various topics. All graduate students must present their MS research in this class before graduation. External speakers may be invited. The objectives are to expose students to a wide range of state-of-the-art research topics and to provide opportunities for students to share research experiences. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Graduate student status.

**Credits:** 1

**Grade Mode:** S/U

### CSCI 601 - Area of Specialization Research Experience I

Work on ongoing research project. Credit given when CS 601, 602 and 603 completed. S/U grading.

**Credits:** 4

**Grade Mode:** S/U

### CSCI 602 - Area of Specialization Research Experience II

Work on ongoing research project. Credit given when CS 601, 602 and 603 completed. S/U grading.

**Prerequisites & Notes:** CSCI 601

**Credits:** 4

**Grade Mode:** S/U

### CSCI 603 - Area of Specialization Research Experience III

Work on ongoing research project. S/U grading.

**Prerequisites & Notes:** CSCI 601, CSCI 602

**Credits:** 4

**Grade Mode:** S/U

## Computer & Information Systems Security Courses

### CISS 247 - Computer Systems I

An overview of basic computer organization and design. Introduction to C programming. Topics covered include data representation, boolean algebra, machine language, instruction sets, processor architecture, multi-processors, system-level I/O, pipelining, and the memory hierarchy. Includes lab.

**Prerequisites & Notes:** CSCI 145

**Credits:** 5

**Grade Mode:** Letter

### CISS 301 - Formal Languages and Functional Programming

Introduction to discrete structures important to computer science, including sets, trees, functions, and relations. Proof techniques. Introduction to the formal language classes and their machines, including regular languages and finite automata, context free languages and pushdown automata. Turing machines and computability will be



introduced. Programming using a functional language is required in the implementation of concepts. Includes lab.

**Prerequisites & Notes:** CSCI 145

**Credits:** 5

**Grade Mode:** Letter

### **CISS 346 - Secure Software Development**

Techniques, methodologies and processes for development of robust, secure software. Security development process, threat modeling, common software vulnerabilities, web site vulnerabilities, defensive coding practices, security testing.

**Prerequisites & Notes:** CISS 247

**Credits:** 4

**Grade Mode:** Letter

### **CISS 349 - Computer System Administration**

A study of the tasks, tools and techniques involved in the configuration and administration of heterogeneous networks of Windows and UNIX/Linux computers, with particular emphasis on system hardening, protection against attack, system monitoring and recovery.

**Prerequisites & Notes:** CISS 247

**Credits:** 4

**Grade Mode:** Letter

### **CISS 360 - Operating System Concepts**

A study of the principles and techniques employed in modern computer operating systems. The emphasis is on process and thread creation, management and scheduling; system calls; memory management, virtual memory and paging; file system implementation, input/output systems and device management.

**Prerequisites & Notes:** CISS 247

**Credits:** 3

**Grade Mode:** Letter

### **CISS 421 - Computer Forensics**

Computer security incident response. Investigation of security breaches of computer network, identification of causes and vulnerabilities. Recovery of data from memory dumps. Recovery of damaged file systems.

**Prerequisites & Notes:** CISS 461

**Credits:** 4

**Grade Mode:** Letter

### **CISS 422 - Dynamic Analysis of Software**

Tools and techniques for the investigation of

suspect software by running it and watching its effect. Establishing a safe work environment, monitoring system behavior, network monitoring, file system monitoring, event reconstruction.

**Prerequisites & Notes:** CISS 247

**Credits:** 4

**Grade Mode:** Letter

### **CISS 423 - Software Reverse Engineering**

Tools and techniques for the static analysis of software by disassembly of executable code. De-obfuscation and decoding techniques.

**Prerequisites & Notes:** CISS 247

**Credits:** 4

**Grade Mode:** Letter

### **CISS 461 - Computer Security**

An overview of computer security and detailed study of the theoretical foundations and practical implementations of some aspects of security, including policy specification, the role of cryptography, policy implementation and assurance, security threats and counter-measures.

**Prerequisites & Notes:** CISS 301

**Credits:** 4

**Grade Mode:** Letter

### **CISS 464 - Penetration Testing**

Tools and techniques for penetration testing of application software and computer systems, with the aim of identifying vulnerabilities for remedial action. Understanding common vulnerabilities, selection and trial of exploits, shellcode. Wireless penetration techniques.

**Prerequisites & Notes:** CISS 461

**Credits:** 4

**Grade Mode:** Letter

### **CISS 469 - Advanced Network System Security**

Discussion of current topics security aspects of industrial control, SCADA systems, cloud computing, mobile devices.

**Prerequisites & Notes:** CISS 360

**Credits:** 4

**Grade Mode:** Letter

### **CISS 478 - Cryptographic Techniques**

A study of the cryptographic techniques and tools commonly used in support of security for computer systems and networks.

## COMPUTER SCIENCE

**Prerequisites & Notes:** CISS 301

**Credits:** 4

**Grade Mode:** Letter

### **CISS 495 - Computer Security Project**

A capstone team-based project to enable students to apply the skills and knowledge attained during the program to real, significant industry-based applications.

**Prerequisites & Notes:** CISS 461

**Credits:** 3

**Grade Mode:** Letter

# Engineering and Design

## Introduction

The Department of Engineering and Design offers Bachelor of Science degree programs that prepare graduates for technical and professional careers in industry. Each program offers a unique mix of theoretical course work and laboratory exercises where students apply theory to solve practical problems in engineering and design. Creativity is encouraged and emphasized. In addition, Western's General University Requirements (GURs) provide graduates with a solid foundation in communication skills and contribute to a broad-based education.

The programs are:

- Electrical Engineering (Electronics concentration)
- Electrical Engineering (Energy concentration)
- Manufacturing Engineering
- Plastics and Composites Engineering
- Industrial Design
- Industrial Technology - Vehicle Design

Engineering and Design includes professions in which knowledge of mathematics and natural sciences, technical experience and practice are used to plan, design, create and enhance technologies that benefit humanity. Graduates are employed by major technology companies, such as Boeing, PACCAR, Alpha Technologies, Cypress Semiconductor, Nike, and Microsoft, and by firms such as TEAGUE and Ziba Design, although career opportunities range across the spectrum due to the broad nature of the programs.

Students planning to major in any Engineering and Design program should have a solid foundation in mathematics, chemistry, and physics. Students planning to major in Industrial Design should also have a sound background in art and design.

## Faculty

**JEFFREY L. NEWCOMER** (1998) Chair and Professor. BS, MEng, MS, PhD (Mechanical Engineering), Rensselaer Polytechnic Institute.

**SURA K. AL-QUDAH** (2014) Assistant Professor. BS (Electronics Engineering), Yarmouk University; MS, PhD (Industrial and Systems Engineering), State University of New York at Binghamton.

**APRIL BRYAN** (2014) Assistant Professor. BS (Aerospace Science Engineering), Tuskegee University; MS, PhD (Mechanical Engineering), University of Michigan.

**TANVEER CHAWLA** (2013) Assistant Professor. BE, Gulbarga University; MS (Mechanical Engineering), Wayne State University; PhD (Mechanical Engineering), University of North Dakota.

**DAVID D. GILL** (2014) Assistant Professor. BS (Mechanical Engineering), Texas Tech University; MS (Mechanical Engineering), Purdue University; PhD (Mechanical Engineering), North Carolina State University.

**NICOLE HOEKSTRA** (1998) Professor. BS (Mechanical Engineering), MS (Mechanical Engineering), University of Minnesota, Institute of Technology.

**KATHLEEN L. KITTO** (1988) Professor, Vice Provost for Research and Dean of the Graduate School. BS, MS (Metallurgical Engineering), Montana College of Mineral Science and Technology.

**ANDREW G. KLEIN** (2014) Associate Professor. BS (Electrical Engineering), Cornell University; MS (Electrical Engineering and Computer Science), University of California - Berkeley; PhD (Electrical & Computer Engineering) Cornell University.

**NICOLE M. LARSON** (2005) Professor. BS (Mechanical Engineering), Bradley University; MS (Mechanical Engineering), University of Washington.

**ERIC C. LEONHARDT** (2002) Associate Professor. BA, Whitman College; BS (Industrial Technology-Vehicle Design), Western Washington University; MS (Automotive Systems Engineering), University of Michigan.

**YING LIN** (2010) Associate Professor. BS, MS (Electrical Engineering), Harbin Institute of Technology; MS (Applied Statistics), PhD (Electrical Engineering), Syracuse University.

**JOHN LUND** (2013) Assistant Professor. BS, Washington State University; MS, PhD (Electrical Engineering), University of Washington.

**JOHN MISASI** (2015) Assistant Professor. BS (Plastics Engineering Technology), Western Washington University; PhD (Polymer Science and Engineering), University of Southern Mississippi.

**JASON A. MORRIS** (2004) Professor. BS (Mechanical Engineering), West Virginia University; Master's of Industrial Design, Pratt Institute.

**TODD MORTON** (1988) Professor. BS, MS (Electrical Engineering), University of Washington.

**ARUNAS P. OSLAPAS** (1991) Professor. BFA, Montana State University; MFA, University of Illinois.

**MARK PEYRON** (2014) Assistant Professor. BS (Chemical Engineering), University of Idaho; PhD (Chemical Engineering), University of Washington.

**DAVID RIDER** (2010) Assistant Professor. BS (Chemistry), Simon Fraser University; PhD (Chemistry), University of Toronto. Joint appointment with Chemistry Dept.

**DEREK M. YIP-HOI** (2007) Associate Professor. BS (Mechanical Engineering), University of the West Indies; MS (Mechanical Engineering), State

# ENGINEERING AND DESIGN

University of New York-Buffalo; PhD (Mechanical Engineering), University of Michigan.

## Instructors

**PAUL D. KEARSLEY** (2012). BS (Industrial Design), Western Washington University.

**INDLE G. KING** (1987) BA, MA, University of Washington.

**STEPHEN R. SAMMS** (2013) BS, MS, PhD (Chemical Engineering), Case Western Reserve University.

**STEPHEN D. SANDELIN** (2012) BS (Electrical Engineering), Washington State University.

**NATHAN SLESINGER** (2012) BS (Plastics Engineering Technology), Western Washington University; MS (Materials Engineering), The University of British Columbia.

**JERIMIAH G. WELCH** (2012). BS (Industrial Design), Western Washington University.

## Other Departmental Information

### Advising and Declaration of Major

Students who intend to complete one of the majors should immediately obtain advisement from the department program coordinator/pre-major advisor to declare their pre-major and plan a program of study. Because Engineering & Design programs require long course sequences with strong prerequisite structures, both freshmen and transfer students should begin their studies within the department in their first year at Western. Students should start immediately fulfilling the math and science requirements of the program. The pre-major advisor/program coordinator for this department is located in ET 204, 360-650-4132.

### Vehicle Design Post-Baccalaureate

A post-baccalaureate professional development certificate program in vehicle design is offered for

students who already have an undergraduate degree in engineering. The three quarter lockstep program begins fall quarter, is self-supporting and has a different tuition rate. Students interested in the post-baccalaureate program need to be referred by the program director of the Industrial Technology - Vehicle Design program. Upon referral, students should complete the Extension Undergraduate Application. Extension admission and registration information is available from Extended Education, 360-650-3308.

## Academic Standards

Students are required to follow all prerequisite requirements for courses and seek early departmental advisement. A grade of C- or higher is required to pass all engineering and design program requirements and all prerequisites for those courses. Students are required to drop any major class if they receive a K grade or a D+ or lower grade in the prerequisite class.

Students may request a program course exception (any grade lower than a C- in a required program course is always considered a program exception). To make a request, a student must submit an Exception Request Form for consideration by the Engineering and Design Curriculum Committee. The form can be found in the student resources section of the Engineering and Design Department website [cse.wvu.edu/engd](http://cse.wvu.edu/engd). In the exception request, a student must clearly and thoroughly state their request and provide a detailed explanation why the exception is being requested and why it is appropriate. The form is then submitted to their department faculty advisor who must add their comments and recommendation before forwarding the form to the committee. Students should expect that the Curriculum Committee will need ample time to consider the request; deadlines are listed on the form.

# Bachelor of Science

## Electrical Engineering, BS

Department of Engineering and Design, College of Science and Engineering

**144-150 credits**

### Introduction

The Electrical Engineering program offers a B.S. degree in electrical engineering.

The program serves current students, industry, the University, and the citizens of the state of Washington by preparing students to find pragmatic engineering solutions to problems, while understanding the impact of

their solutions in a global, economic, environmental, and societal context.

The educational experience we provide emphasizes lab based experiential learning, teamwork, communication, and critical thinking, while the program curriculum provides current, practical engineering knowledge built on a sound mathematical and science background.

The student begins the major in the second quarter of their freshman year with an orientation course and is generally enrolled in one or more major courses each quarter until graduation. The many laboratory courses provide a combination of practical experience with design and ultimately lead to a culminating project that spans the senior year.

The students may choose a concentration in either Electronics or Energy. Both concentrations include a common electrical engineering core.

Electronics courses involve the development, design and application of circuits, devices, and firmware for embedded systems. Content includes digital and analog electronics, embedded microcontrollers, communications, controls, and digital signal processing.

Energy courses include a combination of advanced electrical engineering courses and interdisciplinary courses in the sciences, economics, policy, and the environment. Topics deal with the sources, generation, control and utilization of electric power, energy conversion and storage, and smart power topics such as system analysis, protection and stability, solid state motor control, and industrial process control systems. Projects are normally interdisciplinary in collaboration with faculty in the Institute for Energy Studies.

### Why Consider an Electrical Engineering Major?

Electrical and electronics engineers conduct research, and design, develop, test, and oversee the development of electronic systems and the manufacture of electrical and electronic equipment and devices. This includes a broad range of applications and specializations that generally involve both hardware and software - areas such as power systems, communications, analog and digital signal processing, embedded systems, and control systems. Products developed by electrical engineers can have significant impacts on society. Recent examples include portable smart devices, medical instrumentation, electric and smart vehicles, sensor networks, and renewable and smart energy systems.

#### Contact Information

Engineering & Design Departmental Website: [cse.wvu.edu/engd](http://cse.wvu.edu/engd)

#### Electrical Engineering Program Director

Todd Morton

Engineering Technology 206

360-650-2918

[Todd.Morton@wvu.edu](mailto:Todd.Morton@wvu.edu)

#### Program Coordinator & Pre-Major Advisor

Lisa Ochs

Engineering Technology 204

360-650-4132

[Lisa.Ochs@wvu.edu](mailto:Lisa.Ochs@wvu.edu)

#### Sample Careers

Supervision and technical analysis or design | Design and development | Application support | technical sales | Customer service | Computer maintenance | Communications | Embedded systems | Digital and analog electronics | Electrical power

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

<http://www.careercornerstone.org/eleceng/eleceng.htm>

<http://www.tryengineering.org/become-an-engineer/electrical-engineering>

### How to Declare (Admission and Declaration Process):

**Program Admissions:** Admission to the Electrical Engineering major is a two-phase process. When students initially declare, they are designated as pre-majors. Students must complete the courses listed below in order to apply to the major. Admission to full major status is determined by academic performance as a pre-major and other factors. Admission to the major is competitive. Neither completion of the prerequisites nor attainment of any specific GPA guarantees admission.

**Major Prerequisite courses:** MATH 124, MATH 125, MATH 204, PHYS 161, PHYS 162, CSCI 140, EE 110 (ETEC 270), and EE 111 (ETEC 271). Students must obtain at least a C- in the above courses and an overall GPA in them of 2.0 or higher to be considered. AP scores are converted to GPA as follows: 5 = A; 4 = B; 3 =

## ENGINEERING AND DESIGN

C. Decisions are based primarily on cumulative GPA in the prerequisite courses, but successful completion of other required Major courses, GPA in the Major, and overall GPA are also considerations.

Applications for admittance into Fall quarter are evaluated two times:

**Spring Quarter:** Applications are due by noon on the Friday before Dead Week to ET 204. Only complete, on-time applications will be considered. Applicants will be notified by the end of the week following finals week. Students who are accepted must register for Fall quarter EE courses before the end of Phase I registration. Students who do not register by the end of Phase I registration may lose their major status.

**Fall Quarter:** Applications are also accepted at the beginning of Fall quarter on a space available basis. In order to be considered, applications are due to ET 204 by noon on the Friday before the start of classes. Accepted students will be notified by the start of Phase III registration.

**Transfer Students:** A transfer student that will be transferring into Fall quarter, Year 2, will be designated as a pre-major and will need to follow the standard application process above except for EE110, which must be taken at the first opportunity on-campus. A transfer student that has previous coursework that can be transferred to EE core courses and will be entering the program sequence after Fall quarter, Year 2, may apply at any time. Acceptance will be based on space availability and academic performance. Transfer students who are interested in pursuing the EE program should meet with an advisor to discuss their options.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

**All students must complete the supporting courses, the EE core courses, and one of the concentrations.**

#### Supporting Courses (56 credits)

- CHEM 121 - General Chemistry I
- CSCI 140 - Programming Fundamentals in C++
- ENG 302 - Introduction to Technical and Professional Writing
- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- MATH 204 - Elementary Linear Algebra
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 331 - Ordinary Differential Equations
- MATH 345 - Statistics for Engineering
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III

#### EE Core Courses (54 credits)

- EE 110 - Introduction to Electrical Engineering
- EE 111 - Circuit Analysis I
- EE 210 - Circuit Analysis II
- EE 220 - Electronics I
- EE 233 - Digital Electronics
- EE 244 - Embedded Microcontrollers I
- EE 310 - Continuous Systems
- EE 320 - Electronics II
- EE 344 - Embedded Microcontrollers II
- EE 360 - Communication Systems
- EE 361 - Signal Propagation

- EE 372 - Electrical Power and Electromechanical Devices
- EE 444 - Embedded Systems
- EE 480 - Control Systems

#### EE Electronics Concentration Courses (36-40 credits)

- EE 311 - Discrete Systems
- EE 321 - Electronic Systems
- EE 333 - Digital System Design
- EE 433 - Digital Signal Processing
- EE 460 - Digital Communication Systems
- EE 491 - Project Proposal
- EE 492 - Project Hardware Design
- EE 493 - Project Software and System Implementation
- Technical Elective Courses (6 to 10 credits) as approved by the program advisor.

#### EE Energy Concentration Courses (34-38 credits)

- EE 374 - Energy Processing
- EE 378 - Smart and Renewable Power
- EE 471 - Energy Project Proposal
- EE 472 - Energy Project Research and Development
- EE 473 - Energy Project Implementation
- ENRG 270 - Energy Science I
- ECON 386 - The Economics of Electricity Markets
- ESCI 380 - Energy and Environment
- Technical Elective Courses (6 to 10 credits) as approved by the program advisor.

## Industrial Design, BS

Department of Engineering and Design, College of Science and Engineering

**140-141 credits**

### Introduction

Industrial Design students learn problem-solving methodologies, product research, drawing skills (both by hand and by computer), three dimensional model making techniques, materials, manufacturing processes, ergonomics, design theory, and marketing principles. These skills are applied in the design of many new and innovative products which eventually comprise the student's portfolio.

### Why Consider an Industrial Design Major?

The Bachelor of Science Degree program in Industrial Design prepares graduates to begin work as practicing designers in corporate, consulting, or entrepreneurial positions. Industrial Design is a professional service of creating and developing concepts and specifications that optimize function, value, and appearance of products and systems for the mutual benefit of both the user and the manufacturer.

The Industrial Design degree program is accredited by the National Association of Schools of Art and Design (NASAD), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190; phone (703) 437-0700.

#### Contact Information

Industrial Design Website: [www.wvu.edu/id/](http://www.wvu.edu/id/)

#### Industrial Design Program Director

Jason Morris  
Engineering Technology 335  
360-650-2514  
Jason.Morris@wvu.edu

#### Program Coordinator & Pre-Major Advisor

Lisa Ochs  
Engineering Technology 204

## Sample Careers

Staff Designer for a corporation that manufactures, electronics, furniture, outdoor gear, etc. | Design Consultant working in a small design firm that consults to a variety of manufacturers | Entrepreneur developing new products and creating businesses.

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Declaration of Major

## Entrance Portfolio Requirement

Declaration of a pre-major in the Industrial Design program at Western Washington University requires the submission of a portfolio which, in the judgment of the faculty, offers evidence of a candidate's potential for success within the program.

A portfolio is a collection of an applicant's best work, revealing the applicant's interests and presented as professionally as possible. Applicants should submit work from high school/university courses, professional work, or self-initiated projects. For more information on design portfolios, please refer to the Industrial Design program website, [www.wwu.edu/id/](http://www.wwu.edu/id/).

Portfolios are reviewed by an industrial design committee three times per year prior to the quarter of acceptance into the pre-major. Submission deadlines are posted on the Industrial Design program website. If applicants do not qualify for acceptance one quarter, they may apply for a following quarter after improving the content of their portfolio.

Since the sophomore series of design courses begins in the fall and the courses are sequential, it is highly recommended that transfer students begin studies in the fall quarter. Most Industrial Design courses are only offered one quarter per year and serve as prerequisites for the subsequent courses, so it is important to begin the sequence in September.

## Entrance Portfolio Submission Format

To apply for admission to the pre-major, an individual must submit a portfolio according to the format and content guidelines listed on the Industrial Design website. Application materials will not be returned unless a self-addressed, stamped envelope is provided or the applicant may pick up the portfolio in person from the Engineering and Design main office, Engineering Technology 204.

## Sophomore Portfolio Review

The sophomore portfolio review is held once a year during the second week in June and takes place after the first two years of studies (freshman and sophomore courses) have been successfully completed. Students will be selectively admitted as Industrial Design majors into the junior professional practice series based on their performance as pre-majors.

The requirements for this second portfolio review include successful completion of the following classes: MATH 115 or MATH 118; PHYS 115; ENGR 104; ID 110 or ART 110 or DSGN 220; ID 120 or ART 120; ID 130; ID 210; ID 220; ID 230; ID 310; ID 320; one Art History course (ART 109 recommended); a maximum of 90 credits remaining to graduate; and a portfolio.

More information on the second portfolio review is available on the Western Washington University Industrial Design Website. Early advisement is essential.

The Industrial Design program is accredited by the National Association of Schools of Art and Design (NASAD), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone 703-437-0700.



## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Major -- Industrial Design (140-141 credits)

#### Industrial Design Core: 53 credits

- ENGR 104 - Introduction to Engineering and Design
- MFGE 261 - Introduction to Computer-Aided Design
- ID 110 - Industrial Design Foundation 1
- ID 120 - Industrial Design Foundation 2
- ID 130 - History of Industrial Design
- ID 210 - Sophomore Industrial Design 1
- ID 220 - Sophomore Industrial Design 2
- ID 230 - Sophomore Industrial Design 3
- MFGE 231 - Introduction to Metal Manufacturing Processes
- ID 310 - Perspective and Rendering 1
- ID 320 - Industrial Design CAD Skills
- ID 340 - Perspective and Rendering II
- ID 380 - Materials for Design

#### Professional Practice Series: 30 credits

- ID 350 - Junior Industrial Design I
- ID 360 - Junior Industrial Design II
- ID 370 - Junior Industrial Design III
- ID 410 - Senior Industrial Design I
- ID 420 - Senior Industrial Design II
- ID 430 - Senior Industrial Design III

#### Supporting Courses: 57-58 credits

- ART 109 - Visual Dialogue
- ART 203 - Foundation Drawing II
- Two-Dimensional Art - one course from:
  - ART 304 - Figure Drawing and Issues of the Body
  - ART 305 - Experimental Drawing
  - ART 306 - Mixed Media on Paper
  - ART 320 - Painting I
  - ART 322 - Painting II
  - ART 324 - Figure Painting
  - ART 350 - Printmaking I
- Three-Dimensional Art - one course from:
  - ART 230 - 3-Dimensional Art
  - ART 331 - Sculpture-Wood
  - ART 332 - Sculpture - Metals
  - ART 340 - Ceramics I
- Art History - four courses from:
  - A/HI 210 - History of Architecture
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
  - A/HI 230 - Visual Culture in 15th and 16th Century Europe
  - A/HI 231 - Visual Culture in 17th and 18th Century Europe
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - A/HI 250 - African Visual Culture from Prehistory to Present

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- A/HI 270 - Visual Culture in South and Southeast Asia
- A/HI 271 - Visual Culture in East Asia
- A/HI 301 - Modern Art and Modernism
- LBRL 273 - Art and Society in China and Japan
- DSGN 111 - Design View
- DSGN 211 - Foundations of Visual Communication
- DSGN 249 - Graphic Design Concepts
- Math - one course from:
  - MATH 115 - Precalculus II
  - MATH 118 - Accelerated Precalculus
- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- MGMT 271 - Law and the Business Environment
- MKTG 380 - Principles of Marketing

### Industrial Technology — Vehicle Design, BS

Department of Engineering and Design, College of Science and Engineering

**124 credits**

#### Introduction

The Bachelor of Science degree program in Industrial Technology-Vehicle Design prepares graduates for design, product development and manufacturing positions in the automotive, marine, aerospace, composites, and alternative fuel industry. The program uses vehicle research, design and development projects to educate students. Through the Vehicle Research Institute, over 50 vehicles have been built since 1972. Since 1989, developing hybrid electrical and natural gas/biomethane vehicle technology has been a focus of the program. The student teams have set records around Indianapolis Motor Speedway, up Pike's Peak and across the Australian Outback with a class win in the 1990 World Solar Challenge. A recent team was the only U.S. university-based team in the finals of the Progressive Automotive X Prize - a \$10 million prize to build a 100 mile per hour gallon car. Graduates have entered a wide range of industry sectors including: automotive, automotive racing, aerospace, marine, heavy duty vehicle, composites, prototype design and manufacturing, computer numerically controlled machining and biofuels. Students gain an understanding of the tools, materials and processes used in industry.

#### Why Consider an Industrial Technology - Vehicle Design Major?

The Bachelor of Science Degree program in Industrial Technology-Vehicle Design prepares graduates for the above listed fields.

#### Contact Information

Engineering and Design Departmental Website: [cse.wvu.edu/engd](http://cse.wvu.edu/engd)

#### Industrial Technology Vehicle Design Program Director

Eric Leonhardt  
Engineering Technology 146  
360-650-7266  
[Eric.Leonhardt@wvu.edu](mailto:Eric.Leonhardt@wvu.edu)

#### Program Coordinator & Pre-Major Advisor

Lisa Ochs  
Engineering Technology 204  
360-650-4132  
[Lisa.Ochs@wvu.edu](mailto:Lisa.Ochs@wvu.edu)

#### Sample Careers

Jobs obtained by Western students vary widely depending on the individual student's abilities and the portfolio of work they create while in the program. Graduates of this program have held positions in most major automotive manufacturers and custom car building companies, including positions as stylists. Graduates also work in marine, aerospace, composites and trucking industries.

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Admission to the Industrial Technology-Vehicle Design program is a two-phase process. When students initially declare, they are designated as pre-majors. Students must complete the courses listed below in order to apply to the major. Admission to full major status is determined by academic performance as a pre-major and other factors. Admission to the major is competitive. Neither completion of the prerequisites nor attainment of any specific GPA guarantees admission.

**Major prerequisite courses:** MATH 124, MATH 125, PHYS 161, ENGR 104, ENGR 170, ENGR 214, and VHCL 260. Students may be currently enrolled in no more than two of the above courses when they apply for major admission. A final decision on applications may be delayed until receipt of final grades for in-progress courses. Students must obtain at least a C- in the above courses and an overall GPA in them of 2.0 or higher to be considered. AP scores are converted to GPA as follows: 5 = A; 4 = B; 3 = C. Decisions are based on the portfolio and cumulative GPA in the prerequisite courses, but successful completion of other required Major courses, GPA in the Major, and overall GPA are also considerations.

**Application:** In addition to academic performance as described above, acceptance decisions will also be based on an essay (500 words or less) explaining why you want a degree in vehicle design and a portfolio of your work including pictures and description of up to three pages. The portfolio should show examples of projects or products/parts that you have designed, fabricated, assembled or produced.

Applications are due by **noon on the first Friday in February** to ET 204. Only complete, on-time applications will be considered. Applicants will be notified by the end of the following week. Students who are accepted must register for MFGE 231, MFGE 261, VHCL 261 and ENGR 225 spring quarter before the end of Phase II registration, unless already taken. Students who do not register by the end of Phase II registration may lose their major status. Students need to have a plan to complete PHYS 162 by fall quarter junior year and PHYS 163 by winter quarter junior year.

**Other quarters:** If additional spaces become available, all pre-Majors will be notified by email that applications are being accepted, including the application deadline.

**Transfer Students:** A student that will be transferring to Western Washington University will be designated as a pre-major and will need to apply to the major. Transfer students who are interested in pursuing the IT-VD program should meet with an advisor to discuss their options.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

Core Courses: 70 credits

- ENGR 104 - Introduction to Engineering and Design
- ENGR 170 - Introduction to Materials Science and Engineering
- ENGR 214 - Statics
- ENGR 225 - Mechanics of Materials
- MFGE 231 - Introduction to Metal Manufacturing Processes
- MFGE 261 - Introduction to Computer-Aided Design
- PCE 371 - Introduction to Plastics Materials and Processes
- PCE 372 - Introduction to Composite Materials and Processes
- VHCL 260 - Vehicle Systems I
- VHCL 261 - Vehicle Systems II
- VHCL 320 - Vehicle Electronics
- VHCL 360 - Vehicle Design I
- VHCL 361 - Vehicle Design II
- VHCL 491 - Capstone 1: Powertrain and Project Definition
- VHCL 492 - Capstone 2: Emissions, Alternative Fuels and Project Fabrication

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- VHCL 493 - Capstone 3: Project Implementation and Documentation

Supporting courses: 54 credits

- CHEM 121 - General Chemistry I
  - ENG 101 - Writing and Critical Inquiry
  - One course from:
    - COMM 101 - Fundamentals of Speech
    - COMM 235 - Exposition and Argumentation
  - One course from:
    - CSCI 138 - Programming Fundamentals in Visual Basic
    - CSCI 140 - Programming Fundamentals in C++
    - CSCI 141 - Computer Programming I
  - One course from:
    - MATH 124 - Calculus and Analytic Geometry I
    - MATH 134 - Calculus I Honors
  - One course from:
    - MATH 125 - Calculus and Analytic Geometry II
    - MATH 135 - Calculus II Honors
    - MATH 345 - Statistics for Engineering
    - PHYS 161 - Physics with Calculus I
    - PHYS 162 - Physics with Calculus II
    - PHYS 163 - Physics with Calculus III
    - PHYS 350 - Engineering Thermodynamics
  - One course from:
    - MGMT 311 - Introduction to Management and Organizational Behavior
    - MFGE 341 - Quality Assurance
    - MFGE 381 - Manufacturing Process Planning
    - OPS 360 - Operations Management
- Recommended electives to fulfill 60 credit upper division course requirement:
- ID 310 - Perspective and Rendering 1
  - MFGE 332 - Introduction to CAM and CNC
  - MFGE 362 - CAD Modeling and Analysis Using Surfaces
  - MFGE 434 - Advanced CAM and CNC
  - MFGE 464 - Modeling and Analysis of Mechanisms
  - MFGE 491 - Project Research, Planning and Ethics
  - PCE 472 - Advanced Composites
  - VHCL 400 - Directed Independent Study
  - VHCL 495 - Directed Research in Vehicle Technology

## Manufacturing Engineering, BS

Department of Engineering and Design, College of Science and Engineering

**149-153 credits**

### Introduction

Manufacturing organizations are responsible for creating the vast array of products used in our modern world. These can range from highly personalized products such as a prosthetic device, to complex transportation systems such as a jet airliner. The process of creating these products starts with the identification of a need. This is followed by a systematic sequence of engineering activities that includes the design of the product, the manufacturing processes, the equipment and tooling, and the production systems necessary to produce the final product in sufficient quantities, and with a quality that will be profitable to the organization.

Manufacturing engineers are responsible for conducting this design effort and for implementing, operating, managing and continuously improving the facilities and processes necessary for an organization's success. They need to be both critical thinkers and applications or "hands-on" oriented. Familiarity with a broad range of technologies in areas such as metals fabrication, polymer processing, CAD/CAM, CNC, machine and tooling design, automation and controls, robotics and quality control is essential.

Manufacturing Engineers must also be able to work in and lead teams comprised of other engineers, technologists, scientists and technicians. They must be comfortable functioning in a global setting where the operations of an organization are increasingly dispersed geographically. This program develops these skills with the help of intensive laboratory components spread throughout its courses. Through these experiences, students learn to apply theoretical knowledge learned in the classroom to solve practical, application-based problems in manufacturing.

### Why Consider a Manufacturing Engineering Major?

Manufacturing Engineers need to be both critical thinkers and applications or "hands-on" oriented. They can be employed in any company that creates a product, and may be involved at any point in product development from design to plant operations, maintenance, and management. Competency in a broad range of technologies in areas such as metals fabrication, polymer processing, CAD/CAM, CNC, machine and tooling design, automation and controls, robotics, quality control, and Lean Manufacturing provides great flexibility in career choice. The ability to work in and lead teams comprised of other engineers, technologists, scientists, and technicians, allows for career advancement in management. Manufacturing Engineers are also capable of innovation in design and manufacturing that can lead to patenting and start-up companies.

#### Contact Information

**Engineering and Design Departmental Website:** [cse.wvu.edu/engd](http://cse.wvu.edu/engd)

#### Manufacturing Engineering Program Director

Derek Yip-Hoi  
Engineering Technology 309  
360-650-7236  
[Derek.Yip-Hoi@wvu.edu](mailto:Derek.Yip-Hoi@wvu.edu)

#### Program Coordinator & Pre-Major Advisor

Lisa Ochs  
Engineering Technology 204  
360-650-4132  
[Lisa.Ochs@wvu.edu](mailto:Lisa.Ochs@wvu.edu)

#### Sample Careers

Operation, improvement, and maintenance of production systems | Programming of automation (Robots, CNC machine tools, CMMs) | Modeling & analysis using CAD/CAM/CAE | Design & fabrication of products, tooling, and equipment | Supervising & working in teams with technicians, technologists, analysts, administrative staff, and other engineers

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)  
<http://www.careercornerstone.org/manueng/manueng.htm>  
<http://www.tryengineering.org/become-an-engineer/manufacturing-engineering>

### How to Declare (Admission and Declaration Process):

**Program Admissions:** Admission to the Manufacturing Engineering major is a two-phase process. When students initially declare, they are designated as pre-majors. Students must complete the courses listed below in order to apply to the major. Admission to full major status is determined by academic performance as a pre-major and other factors. Admission to the major is competitive. Neither completion of the prerequisites nor attainment of any specific GPA guarantees admission.

**Major Prerequisite courses:** MATH 124, MATH 125, MATH 224, CHEM 121, PHYS 161, ENGR 104, ENGR 170, and ENGR 214. Students may be currently enrolled in no more than three of the above courses when they apply for major admission. A final decision on applications may be delayed until receipt of final grades for in-progress courses. Students must obtain at least a C- in the above courses and an overall GPA in them of 2.0 or higher to be considered. AP scores are converted to GPA as follows: 5 = A; 4 = B; 3 = C. While decisions are based primarily on cumulative GPA in the prerequisite courses, successful completion of other required Major courses, GPA in the Major, and overall GPA are also considerations. The program will also take under consideration your rationale for pursuing a degree in Manufacturing Engineering, as explained in an essay (500 words or less) that is to be submitted as part of your application.

**Major Application:** In addition to the academic performance described above, acceptance will also be based on an essay (500 words or less) explaining why you want to pursue a degree in Manufacturing

## ENGINEERING AND DESIGN

Engineering. Applications are due by **noon on the first Friday in February** to ET 204. Only complete, on-time applications will be considered. Applicants will be notified by the end of the following week. Students who are accepted must register for MFGE 231, MFGE 261 and MATH 345 (or MATH 341) spring quarter before the end of Phase II registration. Students who do not register by the end of Phase II registration may lose their major status. Students need to have no more than two of the following courses or equivalencies outstanding at the beginning of Fall quarter of year three: PHYS 162, PHYS 163, MATH 204, MATH 331, ENGR 225 and CSCI 140.

**Other quarters:** If additional spaces become available, all pre-Majors will be notified by email that applications are being accepted, including the application deadline.

**Transfer Students:** A student that will be transferring to Western Washington University will be designated as a pre-major and will need to apply to the major. Transfer students who believe they are ready to apply to the MFGE major should contact the department program coordinator for advising the quarter before they intend to start at Western.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Math and General Science (47 credits)

- CHEM 121 - General Chemistry I
- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- MATH 204 - Elementary Linear Algebra
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 331 - Ordinary Differential Equations
- MATH 345 - Statistics for Engineering
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III

#### Engineering and Applied Science (20 credits)

- CSCI 140 - Programming Fundamentals in C++
- ENGR 104 - Introduction to Engineering and Design
- ENGR 170 - Introduction to Materials Science and Engineering
- ENGR 214 - Statics
- ENGR 225 - Mechanics of Materials

#### Manufacturing Engineering Core (82-86 credits)

- EE 351 - Electronics for Engineering
- EE 352 - Introduction to Automation and Control
- MFGE 231 - Introduction to Metal Manufacturing Processes
- MFGE 261 - Introduction to Computer-Aided Design
- MFGE 332 - Introduction to CAM and CNC
- MFGE 333 - Design for Manufacture
- MFGE 341 - Quality Assurance
- MFGE 342 - Data Analysis and Design of Experiments
- MFGE 362 - CAD Modeling and Analysis Using Surfaces
- MFGE 381 - Manufacturing Process Planning
- MFGE 463 - Design of Tooling
- MFGE 465 - Machine Design

- ❑ MFGE 491 - Project Research, Planning and Ethics
- ❑ MFGE 492 - Manufacturing Project Proposal
- ❑ MFGE 493 - Manufacturing Project Implementation
- ❑ PCE 371 - Introduction to Plastics Materials and Processes
- ❑ PCE 372 - Introduction to Composite Materials and Processes
- ❑ OPS 460 - Designing and Improving Lean Operations
- ❑ Select one from the following two courses:
  - MFGE 434 - Advanced CAM and CNC
  - MFGE 453 - Industrial Robotics
- ❑ Technical Electives: Two courses (6-10) credits as approved by the program advisor.

## Plastics and Composites Engineering, BS

Department of Engineering and Design, College of Science and Engineering

**186 (148+ program credits)**

### Introduction

Students enrolled in Western's Plastics & Composites Engineering (PCE) program study the relationship between molecular structure, processing, and properties of polymers and composites. The PCE curriculum prepares graduates who understand and apply established scientific and engineering knowledge to support engineering activities in manufacturing environments. The technical curriculum is built upon a firm base of mathematics, physics, chemistry, and materials science. Practical experience in design, materials, processing, economics, testing, characterization, and analysis is a crucial part of the hands-on curriculum that is provided in the program's extensive and well-equipped laboratory facilities.

### Why Consider a Plastics and Composites Engineering Major?

A plastics and composites engineer can be involved in the development, design analysis, planning, supervision, or construction of the materials, methods, and equipment for the production of industrial or consumer goods in the plastics or composites industry. The PCE graduate will help to solve the complex problems associated with plastics or composites manufacturing operations. PCE graduates work in teams with engineers, scientists, and technicians to solve manufacturing-related problems.

#### Contact Information

**Engineering and Design Departmental Website:** [cse.wvu.edu/engd](http://cse.wvu.edu/engd)

#### Plastics and Composites

##### Engineering Program Director

Nicole Larson

Engineering Technology 117

360-650-3428

[Nicole.Larson@wvu.edu](mailto:Nicole.Larson@wvu.edu)

##### Program Coordinator

##### and Pre-Major Advisor

Lisa Ochs

Engineering Technology 204

360-650-4132

[Lisa.Ochs@wvu.edu](mailto:Lisa.Ochs@wvu.edu)

#### Sample Careers

Manufacturing Engineer | Composite Design Engineer | Plastics Engineer | Material Scientist

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

<http://www.tryengineering.org/become-an-engineer/materials-engineering>

<http://www.careercornerstone.org/matscieng/matscieng.htm>

### How to Declare (Admission and Declaration Process):

**Program Admissions:** Admission to the Plastics and Composites major is a two-phase process. When students initially declare, they are designated as pre-majors. Students must complete the courses listed below in order to apply to the major. Admission to full major status is determined by academic performance as a pre-major and other factors. Admission to the major is competitive. Neither completion of the prerequisites nor attainment of any specific GPA guarantees admission.

**Major Prerequisite courses:** CHEM 121, CHEM 122, MATH 124, MATH 125, PHYS 161, ENGR 104, ENGR 170, and ENGR 214. Students may be currently enrolled in no more than two of the above courses when they

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apply for major admission. A final decision on applications may be delayed until receipt of final grades for in-progress courses. Students must obtain at least a C- in the above courses and an overall GPA in them of 2.0 or higher to be considered. AP scores are converted to GPA as follows: 5 = A; 4 = B; 3 = C. Decisions are based primarily on cumulative GPA in the prerequisite courses, but successful completion of other required Major courses, GPA in the Major, and overall GPA are also considerations.

**Application:** In addition to academic performance as described above, acceptance decisions will also be based on an essay (500 words or less) explaining why you want a degree in Plastics and Composites Engineering.

Applications are due by **noon on the first Friday in February** to ET 204. Only complete, on-time applications will be considered. Applicants will be notified by the end of the following week. Students who are accepted must register for PCE 371, MFGE 261 and MATH 345 spring quarter before the end of Phase II registration unless they are given explicit permission from a PCE advisor not to do so. Students who do not register by the end of Phase II registration may lose their major status. Students need to have a plan to complete PHYS 163 by fall quarter junior year or graduation will be delayed.

**Other quarters:** If additional spaces become available, all pre-Majors will be notified by email that applications are being accepted, including the application deadline.

**Transfer Students:** A student that will be transferring to Western Washington University will be designated as a pre-major and will need to apply to the major. Transfer students who believe they are ready to apply to the MFGE major should contact the department program coordinator for advising the quarter they intend to start at Western.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Plastics and Composites Engineering (81 credits)

- MFGE 231 - Introduction to Metal Manufacturing Processes
- MFGE 261 - Introduction to Computer-Aided Design
- MFGE 332 - Introduction to CAM and CNC
- MFGE 341 - Quality Assurance
- MFGE 342 - Data Analysis and Design of Experiments
- MFGE 362 - CAD Modeling and Analysis Using Surfaces
- PCE 331 - Injection Molding
- PCE 371 - Introduction to Plastics Materials and Processes
- PCE 372 - Introduction to Composite Materials and Processes
- PCE 431 - Advanced Materials and Processing
- PCE 461 - Tooling for Plastics Processing
- PCE 471 - Advanced Materials and Characterization
- PCE 472 - Advanced Composites
- PCE 491 - Project Research, Planning, and Ethics
- PCE 492 - Plastics Capstone Project Proposal
- PCE 493 - Plastics Capstone Project Implementation
- EE 351 - Electronics for Engineering
- Technical Electives (13 credits)

#### Engineering and Applied Science (20 credits)

- ENGR 104 - Introduction to Engineering and Design
- ENGR 170 - Introduction to Materials Science and Engineering
- ENGR 214 - Statics
- ENGR 225 - Mechanics of Materials



- And one of:
  - CSCI 140 - Programming Fundamentals in C++ OR
  - CSCI 141 - Computer Programming I

#### Math and General Science (47 credits)

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 251 - Elementary Organic Chemistry
- CHEM 308 - Introduction to Polymer Chemistry
- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- MATH 345 - Statistics for Engineering
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III

## Minor

### Embedded Systems Minor

Department of Engineering and Design, College of Science and Engineering

#### 24 credits

#### Introduction

The Embedded Systems minor focuses on the parts of Electrical Engineering that embed computing capability into electronic systems through the application of digital systems and embedded microcontroller hardware and software.

It starts with fundamental electrical circuits and then advances to digital systems and embedded microcontrollers. Hardware includes modern microcontroller cores, memories, and IO resources, and FPGA's. Software includes VHDL/Verilog, Assembly and C programming, and real-time multitasking including the application of an RTOS.

#### Why Consider an Embedded Systems Minor?

The embedded systems minor is primarily intended to complement computer science or engineering curriculum for students interested in the low-level hardware and software implementation of these systems.

#### Contact Information

##### Electrical Engineering Program Director

Todd Morton  
 Engineering Technology 206  
 360-650-2918  
 Todd.Morton@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

**Minor Admissions:** Admission to the Embedded Systems minor is a two-phase process. Students must complete the courses listed below in order to apply to the minor. Admission to minor status is determined by academic performance in these course and other factors. Admission to the minor is competitive. Neither

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completion of the prerequisites nor attainment of any specific GPA guarantees admission. The Embedded Systems minor is not available to Electrical Engineering majors.

**Minor Prerequisite courses:** MATH 124, MATH 125, PHYS 161, PHYS 162, and CSCI 140 or CSCI 141. Students must obtain at least a C- in the above courses and an overall GPA in them of 2.0 or higher to be considered. AP scores are converted to GPA as follows: 5 = A; 4 = B; 3 = C. Decisions are based primarily on cumulative GPA in the prerequisite courses, but successful completion of other required Minor courses, GPA in a Major, and overall GPA are also considerations.

**Minor Application:** Applications are due by **noon on the first Friday of February**. Only complete, on-time applications will be considered. Applicants will be notified by the end of the following week. Students who are accepted must register for Spring quarter EE 111 before the end of Phase II registration. Students who do not register by the end of Phase II registration may lose their minor status.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- EE 111 - Circuit Analysis I
- EE 233 - Digital Electronics
- EE 244 - Embedded Microcontrollers I
- EE 333 - Digital System Design
- EE 344 - Embedded Microcontrollers II
- EE 444 - Embedded Systems

## Industrial Technology — Vehicle Design Minor

Department of Engineering and Design, College of Science and Engineering

### 48 credits

#### Contact Information

**Industrial Technology-Vehicle Design  
Program (ITVD) Director**  
Eric Leonhardt  
Engineering Technology 146  
360-650-7266  
Eric.Leonhardt@wwu.edu

**Program Coordinator  
and Pre-Major Advisor**  
Lisa Ochs  
Engineering Technology 204  
360-650-4132  
Lisa.Ochs@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Contact the ITVD program director or department program coordinator, as course offerings have changed.

Students must obtain at least a C- in the MATH 124, MATH 125, PHYS 161, and CHEM 121 prerequisite courses and an overall GPA in them of 2.0 or higher to be considered. AP scores are converted to GPA as follows: 5 = A; 4 = B; 3 = C. Decisions are based on the portfolio and cumulative GPA in the prerequisite courses, but successful completion of other required Minor courses, GPA in the Minor, and overall GPA are also considerations. Applications decisions will also be based upon the available space for students within the Engineering and Design Department.

Acceptance decisions will also be based on an essay (500 words or less) explaining why you want a minor in vehicle design and a portfolio of your work including pictures and description of up to three pages. The portfolio should show examples of projects or products/parts that you have designed, fabricated, assembled or produced. A design or analysis of a vehicle or vehicle related process, such as biofuel production, may be

substituted for physical components produced. This is to facilitate a diverse student body who may apply for the minor.

Applications are due by noon on the Friday during the first week of fall quarter school to Ross ET 204. Only complete, on-time applications will be considered. Applicants will be notified by the end of the following week. Applications decisions will also be based upon the available space for students within the Engineering and Design Department.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENGR 104 - Introduction to Engineering and Design
- ENGR 170 - Introduction to Materials Science and Engineering
- MFGE 231 - Introduction to Metal Manufacturing Processes
- MFGE 261 - Introduction to Computer-Aided Design
- ENGR 214 - Statics
- ENGR 225 - Mechanics of Materials
- VHCL 260 - Vehicle Systems I
- VHCL 261 - Vehicle Systems II
- VHCL 320 - Vehicle Electronics
- VHCL 360 - Vehicle Design I
- VHCL 361 - Vehicle Design II

### Sustainable Design Minor (see Environmental Studies Department)

Sustainable Design Minor (see Environmental Studies Department)

### User Experience (UX) Design Minor

Combined minor offered by the Department of Engineering and Design, College of Science and Engineering and the Department of Design, College of Fine and Performing Arts and Department of Psychology, College of Humanities and Social Sciences and Department of Computer Science, College of Science and Engineering

**28-31 credits depending on major (7-8 courses)**

### Introduction

**User Experience Design** is a holistic, multidisciplinary approach to the design of user interfaces for digital products, defining their form, behavior, and content. User experience design integrates interaction design, industrial design, information architecture, information design, visual interface design, user assistance design, and user-centered design, ensuring coherence and consistency across all of these design dimensions.

User experience design is a multidisciplinary profession that is still evolving and yet is in high demand. It is a combination of graphic design, industrial design, psychology, computer science and business. It requires big picture, strategic design skills, and the ability to design the very detailed interactions in interface. As such, good UX designers are in very short supply. This minor is intended only for industrial design, psychology, marketing, design and computer science majors only.

#### Contact Information

#### Industrial Design Program Coordinator

Jason Morris

Engineering Technology 335

360-650-2514

Jason.Morris@wwu.edu

#### Major/Career Resources

# ENGINEERING AND DESIGN

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admissions and Declaration Process):

The predicted demand for this minor is high, so a cap may be necessary to limit enrollment. 16-20 minors would be accepted per year. Selection occurs two times per year. Once in the Fall and once in the Spring due on the seventh Friday of the quarter. The selection committee comprises of representatives from each of the five programs (Industrial Design, Design, Business Administration (Marketing Concentration), Psychology and Computer Science). Application is available at [www.wvu.edu/id/](http://www.wvu.edu/id/).

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### For Industrial Design majors (28 credits)

- ID 460 - UX Design Capstone
- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- Choose three from:
  - CSCI 102 - Computer-Mediated Communications
  - CSCI 103 - Introduction to Computer Game Development
  - CSCI 141 - Computer Programming I
  - CSCI 202 - Dynamic Web Pages
- Choose one from:
  - DSGN 111 - Design View
  - DSGN 211 - Foundations of Visual Communication
  - DSGN 390 - Topics in Design

### For Computer Science majors (28 credits)

- DSGN 111 - Design View
- DSGN 249 - Graphic Design Concepts
- ID 460 - UX Design Capstone
- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- Choose one from:
  - DSGN 211 - Foundations of Visual Communication
  - DSGN 390 - Topics in Design
  - ID 130 - History of Industrial Design
- Choose one from:
  - ID 110 - Industrial Design Foundation 1
  - ID 320 - Industrial Design CAD Skills

### For Psychology and Business Administration - Marketing concentration majors (28 credits)

- DSGN 111 - Design View
- DSGN 249 - Graphic Design Concepts
- ID 460 - UX Design Capstone
- Choose three from:
  - CSCI 102 - Computer-Mediated Communications
  - CSCI 103 - Introduction to Computer Game Development
  - CSCI 141 - Computer Programming I
  - CSCI 202 - Dynamic Web Pages
- Choose one from:

DSGN 211 - Foundations of Visual Communication  
 DSGN 390 - Topics in Design  
 ID 130 - History of Industrial Design

Choose one from:

ID 110 - Industrial Design Foundation 1  
 ID 320 - Industrial Design CAD Skills

For Design majors (30 credits)

- ID 460 - UX Design Capstone
- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- CSCI 103 - Introduction to Computer Game Development
- CSCI 141 - Computer Programming I
- CSCI 202 - Dynamic Web Pages
- Choose one from:
  - ID 110 - Industrial Design Foundation 1
  - ID 320 - Industrial Design CAD Skills

## WWU Certificate (Non-Degree)

### Vehicle Design Post-Baccalaureate Certificate Program

Department of Engineering and Design, College of Science and Engineering

**54 credits\***

#### Introduction

This certificate is designed for students with a prior engineering or related degree such as electrical engineering, mechanical engineering or chemical engineering who want additional design, engineering and testing experience within the vehicle and alternative fuel domain. Past students have obtained positions in formula one racing, aerospace manufacturing, automotive industry consulting and the alternative fuels industry.

#### Contact Information

##### Industrial Technology-Vehicle Design

##### Program Director

Eric Leonhardt  
 Engineering Technology 146  
 360-650-7266  
 Eric.Leonhardt@wwu.edu

##### Program Coordinator

##### and Pre-Major Advisor

Lisa Ochs  
 Engineering Technology 204  
 360-650-4132  
 Lisa.Ochs@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Please talk with the program director or departmental program coordinator, as course offerings have changed. Thank you for your interest in the program.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- MFGE 231 - Introduction to Metal Manufacturing Processes

## ENGINEERING AND DESIGN

- ❑ MFGE 261 - Introduction to Computer-Aided Design
- ❑ PCE 371 - Introduction to Plastics Materials and Processes
- ❑ PCE 372 - Introduction to Composite Materials and Processes
- ❑ VHCL 260 - Vehicle Systems I
- ❑ VHCL 261 - Vehicle Systems II
- ❑ VHCL 320 - Vehicle Electronics
- ❑ VHCL 360 - Vehicle Design I
- ❑ VHCL 361 - Vehicle Design II
- ❑ VHCL 491 - Capstone 1: Powertrain and Project Definition
- ❑ VHCL 492 - Capstone 2: Emissions, Alternative Fuels and Project Fabrication
- ❑ VHCL 493 - Capstone 3: Project Implementation and Documentation

\*Some course requirements, such as computer aided design courses, may be waived based on the applicants prior degree and course history. Additional courses may be added to fulfill prerequisite requirements.

## Electrical Engineering Courses

### EE 110 - Introduction to Electrical Engineering

General overview of the field of electrical engineering and the electrical engineering program curriculum. Introduction to common lab instruments and software tools through basic project design and testing.

**Prerequisites & Notes:** PHYS 162 or concurrent  
**Credits:** 2  
**Grade Mode:** Letter

### EE 111 - Circuit Analysis I

Introduction to basic circuit analysis. Resistive circuits, RC and RL circuits, and network theorems.

**Prerequisites & Notes:** MATH 125; PHYS 162  
**Credits:** 4  
**Grade Mode:** Letter

### EE 210 - Circuit Analysis II

Continuation of basic circuit analysis. Op-amp circuits, AC circuits analysis, AC power, frequency response including Bode plots.

**Prerequisites & Notes:** EE 111; MATH 204.  
**Credits:** 4  
**Grade Mode:** Letter

### EE 220 - Electronics I

A first course in electronic devices and circuits. Fundamental properties of semiconductor devices and their behavior in electronic circuits.

**Prerequisites & Notes:** EE 210  
**Credits:** 4  
**Grade Mode:** Letter

### EE 233 - Digital Electronics

Introductory digital electronics with emphasis on basic digital concepts, Boolean algebra, digital devices, interfacing, and the major functional units from building block approach. Laboratory with applications, constructing, testing and troubleshooting of digital circuits.

**Prerequisites & Notes:** CSCI 140; EE 111  
**Credits:** 4  
**Grade Mode:** Letter

### EE 244 - Embedded Microcontrollers I

Introduction to microcomputers, microcontrollers, and programming concepts. Study of assembly instruction sets, structured programming using assembly language, and basic embedded debugging techniques.

**Prerequisites & Notes:** EE 233  
**Credits:** 4  
**Grade Mode:** Letter

### EE 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### EE 310 - Continuous Systems

Introduction to continuous-time signals and systems. Analysis of linear time-invariant (LTI) systems. Laplace transforms, Fourier transforms, and their applications to LTI system analysis.

**Prerequisites & Notes:** MATH 331; EE 210.

**Credits:** 4  
**Grade Mode:** Letter

### EE 311 - Discrete Systems

Introduction to discrete-time signals and systems. Z-transform, discrete Fourier transform, introduction to sampling theorem.

**Prerequisites & Notes:** EE 310  
**Credits:** 4  
**Grade Mode:** Letter

### EE 320 - Electronics II

A course in the analysis and design of electronic systems including amplifier building blocks, frequency response, and an introduction to switch-mode power supply and control circuits.

**Prerequisites & Notes:** EE 220  
**Credits:** 4  
**Grade Mode:** Letter

### EE 321 - Electronic Systems

Upper division treatment of active linear and nonlinear electronic circuits. Analysis, design and testing of electronic circuits and subsystems with primary emphasis on the application of integrated circuit components and modules including active filters, instrumentation amplifiers, oscillators and data converters. Laboratory testing of designed circuits and formal report writing.

**Prerequisites & Notes:** EE 310; EE 320  
**Credits:** 4  
**Grade Mode:** Letter

### EE 333 - Digital System Design

An upper-division course in digital system analysis and design including the study of sequential/state machine design techniques and applications with an emphasis on VHDL and ASIC devices.

**Prerequisites & Notes:** EE 233  
**Credits:** 4  
**Grade Mode:** Letter

### EE 344 - Embedded Microcontrollers II

Upper-division study of analysis and design of electronic systems using embedded microcontrollers. This course focuses on using the C programming language for embedded microcontrollers, real-time programming techniques, and on-chip resources. Various hardware resources and interfacing techniques will be introduced and applied in laboratory design problems.

**Prerequisites & Notes:** EE 244  
**Credits:** 4  
**Grade Mode:** Letter

### EE 351 - Electronics for Engineering

Analysis of basic electric circuits, design of simple analog and digital circuits including power supplies, transistor amplifiers, timers and logic device. Laboratory reinforces the circuit concepts presented in the classroom and promotes competent use of basic electronic instruments. Cannot be taken for credit by EE majors.

**Prerequisites & Notes:** MATH 125; PHYS 162  
**Credits:** 4  
**Grade Mode:** Letter

### EE 352 - Introduction to Automation and Control

Design and analysis of electronic automation and control systems. Emphasis on design using digital and analog circuits, microcontrollers, and PLCs. Laboratory design implementation. Cannot be taken for credit by EE majors.

**Prerequisites & Notes:** EE 351; MATH 331; CSCI 140.  
**Credits:** 4  
**Grade Mode:** Letter

### EE 360 - Communication Systems

This course introduces analog and digital communication systems with an emphasis on system level concepts. Fundamental principles underlying communication systems will be studied, including modulation and demodulation, radio architectures and receiver structures, bandwidth requirements, SNR, pulse shaping, and synchronization.

**Prerequisites & Notes:** MATH 345; EE 310  
**Credits:** 4  
**Grade Mode:** Letter

### EE 361 - Signal Propagation

Signal transmission through both guided and unguided media. Distributed-circuit concepts, transmission line theory, and RF impedance matching. RF signal propagation, wireless channel modeling, and basic concepts in antenna theory. Emphasis on applications to communication systems.

**Prerequisites & Notes:** MATH 224; PHYS 163.  
**Credits:** 4  
**Grade Mode:** Letter

## ENGINEERING AND DESIGN

### **EE 372 - Electrical Power and Electromechanical Devices**

A study of electrical power concepts and electromechanical devices' theory, operation and analysis. Topics covered include circuit analysis review, basic electromagnetic theory, three phase power systems, dc machines, synchronous generators, power transformers and induction machines. Also offered as ENRG 372.

**Prerequisites & Notes:** EE 210  
**Credits:** 4  
**Grade Mode:** Letter

### **EE 374 - Energy Processing**

A study of power electronics devices and circuits applied to power conditioning. Topics covered include switching characteristics of power semiconductor devices, power converter topologies, control techniques in power converters and practical applications of power electronics converters in motor drives. Also offered as ENRG 374.

**Prerequisites & Notes:** EE 372 or ENRG 372; and EE 320.  
**Credits:** 4  
**Grade Mode:** Letter

### **EE 378 - Smart and Renewable Power**

A study of smart grid and renewable energy technologies. Topics covered include basics of power system operation, smart grid objectives and main features, alternative energy technologies and interface to utility grid, storage systems technology, Plug-in Hybrid Electric vehicle technology, demand response and demand side management and smart grid monitoring. Also offered as ENRG 378.

**Prerequisites & Notes:** EE 374 or ENRG 374; ENRG 270; and EE 360.  
**Credits:** 4  
**Grade Mode:** Letter

### **EE 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **EE 433 - Digital Signal Processing**

Introduction to the fundamentals of digital signal processing (DSP) and digital filtering. Topics include design and analysis of FIR filters and IIR filters, and practical applications of DSP. Students will gain both software simulation and hardware hands-on experience in implementing DSP algorithms.

**Prerequisites & Notes:** EE 311; EE 444  
**Credits:** 4  
**Grade Mode:** Letter

### **EE 444 - Embedded Systems**

The advanced study of real-time embedded systems hardware and software analysis and design. Includes real-time kernels, kernel services, and networking in a variety of hardware and software applications.

**Prerequisites & Notes:** EE 344  
**Credits:** 4  
**Grade Mode:** Letter

### **EE 460 - Digital Communication Systems**

This course focuses on advanced digital communication system design, analysis, and implementation. Random processes will be used to model communication systems and analyze their performance in noise. Advanced communication techniques will be studied, such as: multicarrier systems, spread spectrum, equalization, channel coding, and modern wireless protocols and standards.

**Prerequisites & Notes:** EE 360; EE 433  
**Credits:** 4  
**Grade Mode:** Letter

### **EE 471 - Energy Project Proposal**

This is the first of three courses for the interdisciplinary culminating project in the electrical engineering – energy option. Students define objectives, perform research, and prepare project proposals for EE 472 and EE 473. Also offered as ENRG 471.

**Prerequisites & Notes:** EE 378; EE 480 or concurrent.  
**Credits:** 2  
**Grade Mode:** Letter

### **EE 472 - Energy Project Research and Development**

This is the second of three courses for the interdisciplinary energy project. Students complete the research and develop design concepts based on the constraints defined in EE 471. Also offered as ENRG 472.



**Prerequisites & Notes:** EE 471

**Credits:** 4

**Grade Mode:** Letter

### EE 473 - Energy Project Implementation

This is the third of three courses for the interdisciplinary energy project. Students complete the implementation of an energy related project as defined in EE 471 and EE 472. Also offered as ENRG 473.

**Prerequisites & Notes:** EE 471; EE 472

**Credits:** 4

**Grade Mode:** Letter

### EE 480 - Control Systems

A study of analog control systems and techniques using operational mathematics, Laplace transforms, transfer functions, second-order systems, stability criteria, frequency response analysis, PID compensation. Laboratory investigation of control systems and computer modeling.

**Prerequisites & Notes:** EE 310

**Credits:** 4

**Grade Mode:** Letter

### EE 491 - Project Proposal

This is the first of three courses for the culminating project. Students define objectives, perform research, and prepare project proposals for EE 492 and EE 493.

**Prerequisites & Notes:** EE 321; EE 480 or concurrent; EE 460 or concurrent; EE 372 or concurrent.

**Credits:** 2

**Grade Mode:** Letter

### EE 492 - Project Hardware Design

Second of three project courses. Design and fabrication of PCB-based capstone project hardware with special attention to modern commercial manufacturing techniques.

**Prerequisites & Notes:** EE 491

**Credits:** 4

**Grade Mode:** Letter

### EE 493 - Project Software and System Implementation

This is the third of three courses for the culminating project. Students complete the design and verification of software and software/hardware integration for the final project implementation based on the constraints defined in EE 491.

**Prerequisites & Notes:** EE 491; EE 492

**Credits:** 4

**Grade Mode:** Letter

### EE 495 - Directed Research in Electrical Engineering

Advanced study in problems chosen and conducted under supervision. Repeatable 3 times to a maximum 9 credits.

**Credits:** 1-3

**Grade Mode:** Letter

## Engineering Courses

### ENGR 104 - Introduction to Engineering and Design

Introduces students to the field of engineering, the design process and communication of ideas with graphics. Includes team design projects, drawing instruction and assignments, role of CAD, introduction to the engineering disciplines, engineering history, ethics and case studies of engineering feats and failures, and how things are made.

**Credits:** 3

**Grade Mode:** Letter

### ENGR 170 - Introduction to Materials Science and Engineering

The relationship between structure, properties, processing, and performance of materials; introduction to physical and mechanical properties of materials, including metals, polymers, ceramics, composites; and materials selection based on engineering design criteria. Processing includes: strengthening, deformation, phase equilibrium, and thermal treatments.

**Prerequisites & Notes:** CHEM 121 or CHEM 125; (MATH 124 and PHYS 161, or concurrent) or (MATH 157 and PHYS 114, or concurrent)

**Credits:** 4

**Grade Mode:** Letter

### ENGR 214 - Statics

Principles and basic concepts of statics including: vector analysis applied to equilibrium of rigid body systems and subsystems, force and moment resultants, free body diagrams, internal forces and friction. Analysis of basic structural and machine systems and components. Shear and moment diagrams. Use of linear algebra to solve simultaneous systems of equations.

**Prerequisites & Notes:** MATH 124; MATH 125 or

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concurrent; MATH 204 recommended; and PHYS 161

**Credits:** 4

**Grade Mode:** Letter

## ENGR 225 - Mechanics of Materials

Principles and basic concepts of structural analysis including: internal forces, stress, strain, axial loading, torsion, bending, combined loads, and buckling. Introduction to stress transformation, failure analysis, and finite element analysis.

**Prerequisites & Notes:** ENGR 104; ENGR 170; ENGR 214; MATH 125

**Credits:** 5

**Grade Mode:** Letter

## Industrial Design Courses

### ID 110 - Industrial Design Foundation 1

This studio course covers foundational drawing and visual skills pertaining to industrial design. The process of drawing is analytical, communicative and inventive. Classical drawing technique, drawing from life, objects, machines, architecture, human form, observation of light and shadow and composition are taught and practiced.

**Prerequisites & Notes:** ID Pre-majors during Phase I registration; Non-majors Phase II registration.

**Credits:** 4

**Grade Mode:** Letter

### ID 120 - Industrial Design Foundation 2

This studio course teaches color and three dimensional form theory and application as it relates to the practice of industrial design. Two-dimensional form, color structure, and composition are investigated here through various assignments and principles. The basic abstract components of form - line, plane, mass and space - are examined and explored through assignments and research.

**Prerequisites & Notes:** ID Pre-major during Phase I registration; Non-majors Phase II registration.

**Credits:** 4

**Grade Mode:** Letter

### ID 130 - History of Industrial Design

A historical overview of mass-produced products, the designers who created them, and their influence on our culture and society. International perspective covering significant events from the Industrial Revolution to the present.

**Credits:** 3

**Grade Mode:** Letter

### ID 210 - Sophomore Industrial Design 1

Industrial design model making using wood and other materials. Proper and safe use of tools. Craftsmanship, joining, shaping and finishing of finished design models, prototypes and finished objects.

**Prerequisites & Notes:** ENGR 104 or concurrent; ID Pre-major Phase I registration.

**Credits:** 4

**Grade Mode:** Letter

### ID 220 - Sophomore Industrial Design 2

Industrial design studio course explores the use of different media and techniques to create innovative solutions for two- and three-dimensional design problems. Emphasis on fundamental design principles, ability to express new ideas, and awareness of the consumer market.

**Prerequisites & Notes:** ID 120 and ID 210.

**Credits:** 5

**Grade Mode:** Letter

### ID 230 - Sophomore Industrial Design 3

Industrial design studio course explores the use of different media and techniques to create innovative solutions for two- and three-dimensional design problems. Emphasis on fundamental design principles, ability to express new ideas, and awareness of the consumer market.

**Prerequisites & Notes:** ID 220

**Credits:** 5

**Grade Mode:** Letter

### ID 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ID 310 - Perspective and Rendering 1

First half of course explores perspective systems, shadow construction, reflections and other aspects of technical drawing as they apply to industrial

design. Second half applies perspective skills to realistic marker rendering of materials and products as well as rapid visualization as an informal means of expressing new ideas quickly.

**Prerequisites & Notes:** ID 110 or ART 110 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ID 320 - Industrial Design CAD Skills**

Computer-intensive course focusing on solid modeling, advanced rendering techniques, vector-based drawing and raster-based image editing relevant to industrial design that will enable students to present and communicate product design concepts skillfully.

**Prerequisites & Notes:** ID 110 or ID 310 or DSGN 220.

**Credits:** 4

**Grade Mode:** Letter

### **ID 340 - Perspective and Rendering II**

Advanced applications of perspective and rendering will include further exploration in various media including the use of computers in generating product images.

**Prerequisites & Notes:** ID 310 and acceptance into Industrial Design Program.

**Credits:** 4

**Grade Mode:** Letter

### **ID 350 - Junior Industrial Design I**

Studio course work emphasizing a comprehensive design methodology which includes market research, problem identification, idea generation, implementation and presentation. Additional focus on a team approach.

**Prerequisites & Notes:** Acceptance into Industrial Design Program.

**Credits:** 5

**Grade Mode:** Letter

### **ID 360 - Junior Industrial Design II**

Studio course work focusing on the development of a concept from the research phase to a three-dimensional model that is submitted to a national competition. Emphasis on concise project explanation, descriptive drawings and quality photo-documentation of model.

**Prerequisites & Notes:** ID 350

**Credits:** 5

**Grade Mode:** Letter

### **ID 370 - Junior Industrial Design III**

Studio course work focusing on a collaborative project with industry. Assignments are jointly directed by the instructor and industry. Students are expected to relate to the industry sponsor as their client and perform their work professionally.

**Prerequisites & Notes:** ID 360

**Credits:** 5

**Grade Mode:** Letter

### **ID 380 - Materials for Design**

Fundamentals of materials technology for industrial design majors. Properties and processing of materials with an emphasis on plastics.

**Prerequisites & Notes:** ENGR 104 and acceptance into the Industrial Design Program.

**Credits:** 5

**Grade Mode:** Letter

### **ID 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ID 410 - Senior Industrial Design I**

Studio course work with a strong focus on art and craftsmanship. Through the design of various products, a validation of artistic expression and technical skills will be realized.

**Prerequisites & Notes:** ID 370

**Credits:** 5

**Grade Mode:** Letter

### **ID 420 - Senior Industrial Design II**

Studio course work with a strong focus on the functional and engineering aspects of industrial design. Emphasis on manufacturability of products with importance placed on materials and processes.

**Prerequisites & Notes:** ID 410

**Credits:** 5

**Grade Mode:** Letter

### **ID 430 - Senior Industrial Design III**

Studio course work with a strong focus on

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entrepreneurialism. Business aspects of industrial design are explored and applied in the design projects.

**Prerequisites & Notes:** ID 420

**Credits:** 5

**Grade Mode:** Letter

### ID 440 - Industrial Design Internship

Faculty-supervised industrial design internship with an approved firm, manufacturer or design consultancy. The internship requires a total of 10 weeks (may be more than one internship) of practical application of industrial design skills in a business, public or industrial setting. Repeatable up to 12 credits, including original course.

**Prerequisites & Notes:** ID 370 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### ID 450 - Industrial Design Internship Presentation

A formal presentation of a recently completed industrial design internship which includes a visual presentation and report. Repeatable up to 3 credits, including original course.

**Prerequisites & Notes:** ID 440

**Credits:** 1

**Grade Mode:** Letter

### ID 460 - UX Design Capstone

This course is the culminating multidisciplinary design project class for the User Experience (UX) Design Minors. Students representing each discipline, psychology, computer science, industrial design and graphic design, come together to design a user experience. This course incorporates all of their skills and knowledge together into a realistic project. The process will include: team management, problem discovery, design research, concept development, prototyping, user testing and development. It may be sponsored by industry and guided by UX professionals.

**Prerequisites & Notes:** Acceptance into UX Design Minor.

**Credits:** 4

**Grade Mode:** Letter

## Industrial Technology- Vehicle Design Courses

### VHCL 260 - Vehicle Systems I

An introduction to the vehicle design process with a focus on vehicle system engineering. The course provides an overview of vehicle systems including powertrain, suspension, and brakes. Students will compare and contrast potential power systems for vehicles including Otto, Clerk, Diesel, Wankel, Rankine and Sterling engine cycles in addition to electric and fuel cell systems. The course features a lab component in which students will assemble various engine components, operate an engine and work on vehicle projects.

**Prerequisites & Notes:** MATH 124 or concurrent

**Credits:** 5

**Grade Mode:** Letter

### VHCL 261 - Vehicle Systems II

Model, design and analyze machine elements with respect to vehicles. Principles and practices of mechanical transmission of power. Machine elements such as bearings, cams, gear drive, chain drive, belt drive, overrunning clutches, universal joints, synchromesh transmissions and limited slip differentials are covered in theory and practice. Introduce manufacturing skills such as machining and casting.

**Prerequisites & Notes:** VHCL 260; ENGR 104; ENGR 170; ENGR 214; MATH 124; MATH 125; PHYS 161; MFGE 261 or concurrent; MFGE 231 or concurrent; ENGR 225 or concurrent

**Credits:** 5

**Grade Mode:** Letter

### VHCL 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### VHCL 320 - Vehicle Electronics

Basic principles of automotive communication networks and control systems, operation and calibration of sensors and actuators, vehicle wiring harness design considerations, wiring diagrams, diagnostics and troubleshooting.

**Prerequisites & Notes:** VHCL 261; PHYS 162

**Credits:** 4

**Grade Mode:** Letter

### VHCL 360 - Vehicle Design I

Vehicle design process including packaging, ergonomics, and chassis design. Suspension design including vehicle dynamics, tire parameters, force-base analysis, spring rates, dampers and anti-roll bars.

**Prerequisites & Notes:** VHCL 261; MFGE 231; MFGE 261; ENGR 225.

**Credits:** 5

**Grade Mode:** Letter

### **VHCL 361 - Vehicle Design II**

Advanced body design, ergonomics, aerodynamics, climate control, aesthetic design of automobile interiors and exteriors. Practical work includes wind tunnel model construction and testing.

**Prerequisites & Notes:** VHCL 360; ENGR 225

**Credits:** 5

**Grade Mode:** Letter

### **VHCL 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **VHCL 491 - Capstone 1: Powertrain and Project Definition**

Engine design, modeling, analysis, and development. Calculate engine efficiency and power. Design and fabricate engine components such as cylinder heads and blocks. Development including dynamometer testing and airflow port development. Capstone project definition.

**Prerequisites & Notes:** VHCL 361; PHYS 350

**Credits:** 5

**Grade Mode:** Letter

### **VHCL 492 - Capstone 2: Emissions, Alternative Fuels and Project Fabrication**

Emission control strategies for spark ignition and compression ignition engines. Alternative fuels including natural gas, biomethane, hydrogen, biodiesel, ethanol and propane. Natural gas station infrastructure. Capstone project fabrication process is monitored within this course.

**Prerequisites & Notes:** VHCL 491; CHEM 121

**Credits:** 5

**Grade Mode:** Letter

### **VHCL 493 - Capstone 3: Project Implementation and Documentation**

Testing, implementation and documentation of a vehicle or fuel related component or system.

**Prerequisites & Notes:** VHCL 492

**Credits:** 2

**Grade Mode:** Letter

### **VHCL 495 - Directed Research in Vehicle Technology**

Advanced study in problems chosen and conducted under supervision. Repeatable 3 times to a maximum of 9 credits, including original course. This may include research and development including powertrain, fuels, materials, vehicle systems or components. This may include a multi-disciplinary, team-based project.

**Prerequisites & Notes:** VHCL 261

**Credits:** 1-4

**Grade Mode:** Letter

## **Manufacturing Engineering Courses**

### **MFGE 231 - Introduction to Metal Manufacturing Processes**

An introduction to the manufacturing processes used to cast, form, cut, and join metal when creating parts per an engineering drawing. Students will be required to complete a fabrication project using machining processes. Includes an introduction to metrology and CNC.

**Prerequisites & Notes:** ENGR 170 or ID 380; MFGE 261 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 261 - Introduction to Computer-Aided Design**

Introduction to parametric, Computer-Aided Design. Covers sketching and feature-based modeling in the creation of 3D parts for engineered products, assembly modeling and drafting. Emphasizes modeling of machined and plastic components and generation of drawings with proper dimensioning and GDT. Introduction to fabrication using rapid prototyping.

**Prerequisites & Notes:** ENGR 104

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 300 - Directed Independent Study**

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An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MFGE 332 - Introduction to CAM and CNC**

Introduces the application of Computer-Aided Manufacturing and Computer Numerical Control for fabricating parts using machining processes. Includes manual part programming principals, process planning, cutting tool selection, fixturing, part program generation using CAM, verification of NC programs, set-up and operation of CNC equipment.

**Prerequisites & Notes:** MFGE 231 and MFGE 261

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 333 - Design for Manufacture**

Introduces the consideration of the capabilities of manufacturing processes during product design. Includes impact on geometry, material properties, surface finish and dimensional accuracy. Foundry, forming, joining and machining processes will be explored. Project work will compare parts designed for different process scenarios and require generating appropriate fabrication documentation using CAD.

**Prerequisites & Notes:** MFGE 231 and MFGE 261

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 341 - Quality Assurance**

Quality Assurance as applied to manufacturing operations. Practical applications of Lean Six Sigma and Statistical Control. Proper use of inspection equipment.

**Prerequisites & Notes:** MATH 345

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 342 - Data Analysis and Design of Experiments**

A practical approach to Design of Experiments and the analysis of data, including analysis of variance, linear, multiple linear, and nonlinear regression. Emphasis on the proper use and interpretation of the techniques in solving engineering problems rather than on theoretical development.

Application of these tools using statistical software.

**Prerequisites & Notes:** MFGE 341

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 362 - CAD Modeling and Analysis Using Surfaces**

Introduces advanced CAD modeling techniques using surface based features and operations. Demonstrates use of surfaces to model both homogeneous solid and composite products. Introduces the use of a CAD model of a composite part for structural analysis using FEA.

**Prerequisites & Notes:** ENGR 225 and MFGE 261

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 381 - Manufacturing Process Planning**

Organization of people, equipment, and workstations to create manufacturing systems that are safe and efficient. Basic principles of lean manufacturing. Fundamentals of material needs estimation. Design for assembly principles. Ergonomic design of workstations to fit the human body. Fundamentals of industrial safety, including OSHA compliance, proper materials handling and storage procedures, and safety program management.

**Prerequisites & Notes:** MFGE 231; MFGE 261; MATH 345 or concurrent

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MFGE 434 - Advanced CAM and CNC**

The study of tool path generation using CAM for the machining of freeform surfaces. Includes exposure to techniques for both 3-axis and 5-axis machining. Introduction to the kinematics of 5-axis machines and their simulation for the purposes of NC verification. Overview of post-processor design. Lab experiences include the programming, setup and operation of CNC machine tools.

**Prerequisites & Notes:** MFGE 332 and MFGE 362

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 453 - Industrial Robotics**

An introduction to the fundamentals of robotics, including kinematics and inverse kinematics, path and trajectory planning, robot programming for industrial applications, design and development of robot cells, robot safety, and machine vision systems.

**Prerequisites & Notes:** MFGE 332 and EE 352

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 463 - Design of Tooling**

Design of tooling used in manufacturing processes to include, but not limited to, inspection gages, fixtures, jigs, assembly fixtures, and tooling for forming processes.

**Prerequisites & Notes:** MFGE 332; MFGE 333; MFGE 381

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 464 - Modeling and Analysis of Mechanisms**

An advanced, CAD based approach to the design and analysis of mechanisms. Provides a study of the kinematics of common mechanisms found in manufacturing environments. These include linkages, cams, cranks, power screws and gear and belt drives. Treatment of topics is tailored to provide the ability to validate results generated using CAD based simulations. Develops the ability as part of a team to create and manage large assembly models with moving components. Emphasizes the use of top-down techniques. Introduction to PDM.

**Prerequisites & Notes:** PHYS 161; MFGE 261

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 465 - Machine Design**

Introduces the sizing and selection of machine components to satisfy static and dynamic loading conditions. Includes a study of shafts, power screws, welded and bolted joints, bearings, springs and brakes and clutches, gearing and flexible mechanical components. Project work will incorporate the use of CAD tools to automate the design process for a machine, model its 3D component geometry, and generate engineering drawings. Validation of results obtained from Finite Element Analysis.

**Prerequisites & Notes:** MFGE 261; ENGR 225; PHYS 163.

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 466 - CAD Automation**

Introduces programming techniques that automate the task of building and manipulating 3D parametric part and assembly CAD models. Requires use of Visual Basic for Applications and the VBA programming interface for a state-of-the-art CAD system, in conjunction with other VBA supported software applications such as Excel. Assignments and project work illustrate use of these techniques for creating customized CAD tools that automate problem solving for engineering design and manufacturing applications.

**Prerequisites & Notes:** CSCI 140 or CSCI 141; MFGE 332; MFGE 362

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 491 - Project Research, Planning and Ethics**

First in the series of three capstone project courses. Explores professional and ethical responsibilities, discussion concerning contemporary issues, and the impact of engineering solutions in a global context. Project planning and research skills are also discussed and practiced.

**Prerequisites & Notes:** ENG 101; MFGE 342

**Credits:** 4

**Grade Mode:** Letter

### **MFGE 492 - Manufacturing Project Proposal**

The second course in the capstone project sequence. Takes project specifications defined in the first course and furthers the planning and design work necessary to support project implementation in the final course. Experience culminates in the writing of a formal project proposal that clearly defines expected project results, resource requirements and project milestones.

**Prerequisites & Notes:** MFGE 491

**Credits:** 2

**Grade Mode:** Letter

### **MFGE 493 - Manufacturing Project Implementation**

The third and final course in the capstone project sequence. Implements a plan to design, analyze and/or fabricate a process, product, tool, piece of equipment or enhancement to a manufacturing

## ENGINEERING AND DESIGN

system. The results of the project will be fully documented and communicated through journaling, a final report, a poster and an oral presentation.

**Prerequisites & Notes:** MFGE 492  
**Credits:** 4  
**Grade Mode:** Letter

### **MFGE 495 - Directed Research in Manufacturing**

Research under supervision within one of the areas of manufacturing. Repeatable twice, up to 8 credits, including original course.

**Prerequisites & Notes:** MFGE 342  
**Credits:** 1-4  
**Grade Mode:** Letter

## Plastics and Composite Engineering Courses

### **PCE 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **PCE 331 - Injection Molding**

Theory and practice of injection molding. Analysis of machine functions, processing parameters, production tooling, process control systems, quality assurance, automation, rheology of polymers, heat transfer. Extensive lab experience.

**Prerequisites & Notes:** PCE 371; PHYS 163; CHEM 122  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 371 - Introduction to Plastics Materials and Processes**

Polymer science and analysis of basic plastics materials; experience in product design, tooling, and processing of thermoplastic.

**Prerequisites & Notes:** ENGR 104; ENGR 170  
**Credits:** 5  
**Grade Mode:** Letter

### **PCE 372 - Introduction to Composite Materials and Processes**

Polymer and reinforcement systems; material testing; mold design and development; laboratory involvement in reinforced plastics production processes.

**Prerequisites & Notes:** PCE 371  
**Credits:** 5  
**Grade Mode:** Letter

### **PCE 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **PCE 402 - Cooperative Internship**

Supervised study of technical problems associated with production, design, materials, and/or management in business and industry. Repeatable up to 8 credits, including original course.

**Prerequisites & Notes:** PCE 371  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 431 - Advanced Materials and Processing**

Principles of polymer formulation and modification. Additives and modifiers, compounding processes and equipment. Use of experimental design in compound formulation.

**Prerequisites & Notes:** PCE 471; MFGE 342  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 461 - Tooling for Plastics Processing**

Design and construction of various types of production molds that are used for processing plastics. Product design in relationship to molding techniques and various techniques and materials used to construct the molds are the major units of study. Extensive lab work.

**Prerequisites & Notes:** MFGE 332; PCE 331  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 471 - Advanced Materials and Characterization**



Structure, properties, processing and applications of engineering polymers. Advanced analysis and testing of polymers for engineering applications.

**Prerequisites & Notes:** PCE 331; CHEM 308  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 472 - Advanced Composites**

Advanced polymer matrix and reinforcement systems; structural design and analysis; advanced composites processes and automated production systems.

**Prerequisites & Notes:** PCE 372; MFGE 362  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 491 - Project Research, Planning, and Ethics**

First in the series of three capstone project courses. Explores profession and ethical responsibilities, discussion concerning contemporary issues, and the impact of engineering solutions in a global context. Project planning and research skills are also discussed and practiced.

**Prerequisites & Notes:** ENG 101; MFGE 342 or concurrent  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 492 - Plastics Capstone Project Proposal**

The second course in the capstone project sequence. Takes project specifications defined in the first course and furthers the planning and design work necessary to support project implementation in the final course. Experience culminates in the writing of a formal project proposal that clearly defines expected project results, resource requirements and project milestones.

**Prerequisites & Notes:** MFGE 342; PCE 471; PCE 491  
**Credits:** 2  
**Grade Mode:** Letter

### **PCE 493 - Plastics Capstone Project Implementation**

The third and final course in the capstone project sequence. Implements a plan to design, analyze and/or fabricate a process, material, product, tool, piece of equipment or enhancement to a manufacturing system. The results of the project will be fully documented and communicated through journaling, a final report, a poster and an

oral presentation.

**Prerequisites & Notes:** PCE 492  
**Credits:** 4  
**Grade Mode:** Letter

### **PCE 495 - Directed Research in Plastics and Composites Engineering**

Selection, development and research, under supervision, within one of the areas of plastics and composites engineering. Repeatable 2 times to a maximum of 8 credits, including original course.

**Prerequisites & Notes:** PCE 371  
**Credits:** 1-4  
**Grade Mode:** Letter

# Geology

## Introduction

The natural setting of Western Washington University adjacent to the Cascade Mountains and Salish Sea provides an ideal situation for study of a wide variety of geologic problems.

## Faculty

At the present time the department consists of 13 faculty members who have a broad range of backgrounds covering the entire field of geology. There are about 180 undergraduate students declaring geology majors and approximately 30 graduate students in the department.

**BERNARD A. HOUSEN** (1997) Chair and Professor. BS, University of Washington; MS, PhD, University of Michigan.

**COLIN B. AMOS** (2012) Assistant Professor. BS, University of California - Davis; PhD, University of California - Santa Barbara

**JACQUELINE CAPLAN-AUERBACH** (2006) Associate Professor. BA, Yale University; PhD, University of Hawaii-Manoa.

**DOUGLAS H. CLARK** (1998) Associate Professor. BS, MS, Stanford University; PhD, University of Washington.

**SUSAN M. DEBARI** (1998) Professor. BA, Cornell University; PhD, Stanford University.

**BRADY Z. FOREMAN** (2014) Assistant Professor. BA, Macalester College; MS University of Michigan; PhD University of Wyoming.

**EDWARD E. GEARY** (2013) Professor. BS, Stanford University; MS, PhD, Cornell University.

**THOR A. HANSEN** (1985) Professor. BS, George Washington University; PhD, Yale University.

**SCOTT R. LINNEMAN** (2000) Professor. BA, Carleton College; PhD, University of Wyoming.

**ROBERT J. MITCHELL** (1996) Professor. BS, University of Wisconsin-River Falls; MS, Michigan Technological University; PhD, Michigan Technological University.

**SEAN R. MULCAHY** (2015) Assistant Professor. BS, Virginia Tech; PhD, University of California, Davis.

**MELISSA R. RICE** (2014) Assistant Professor. BA, Wellesley College; MS, PhD, Cornell University.

**ELIZABETH R. SCHERMER** (1990) Professor. BS, Stanford University; PhD, Massachusetts Institute of Technology.

**PETE STELLING** (2011) Assistant Professor. BA, Western State College, Colorado; PhD, University of Alaska-Fairbanks.

## Research Associates

**CLARK M. BLAKE** (1993) AB, University of California-Berkeley; PhD, Stanford University.

**RUSSELL F. BURMESTER** (1978). BS, Stanford University; MA, University of Texas-Austin; PhD, Princeton University.

**ERIC E. GROSSMAN** (2011) BA, University of California, Berkeley, MS, PhD, University of Hawaii.

**GEORGE MUSTOE** (2014) BS, MS, Western Washington University.

**BRIAN RUSK** (2011) BS, James Madison University, PhD, University of Oregon.

## Adjunct Faculty

**DAVID TUCKER** (2006) BS, MS, Western Washington University.

**PETER WILLING** (1997) BA, University of Washington; MS, PhD, Cornell University.

## Declaration of Major

Phase I: Students can declare as a Phase I major at any time as long as they are in good academic standing. Students can declare and complete a Geology minor, a BA in Geology, or a BA in Education Earth Science or Earth Science/General Science without advancing to Phase II.

Students who wish to earn a BS Geology or BS Geophysics degree must complete a set of preparatory courses for admission into these degree programs. Students must earn a cumulative GPA of 2.0 or higher in this set of preparatory courses, and be in good academic standing to qualify for admission. Priority for admission will be given to students who have a GPA of 2.5 or higher in these preparatory courses; students with a lower GPA will be admitted on a space-available basis.

Preparatory courses for BS Geology:

- GEOL 211, GEOL 212 and GEOL 213
- one of GEOL 306, GEOL 310, GEOL 318, or GEOL 352
- CHEM 121, MATH 124

Preparatory courses in BS Geophysics:

- GEOL 211, GEOL 352
- PHYS 161, PHYS 162
- MATH 124

## Geologist License Education Requirements

A professional license is required by law to practice geology in Washington State. The first step toward licensure is passing the National Association of State Boards of Geology (ASBOG) Fundamentals of Geology exam. To qualify to take ASBOG's

Fundamentals of Geology exam you must satisfy certain educational requirements. If you obtain a B.S. degree in geology from WWU your educational requirements are met. If you choose a B.A. in geology or a B.S. in geophysics degree you must have a minimum of 36 credits in specific content areas, so please see your departmental advisor for planning if you take one of these degrees and wish to pursue a professional license.

### Departmental Honors and Distinctions

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

### Other Departmental Information

#### Facilities and Equipment

Geology is a science that studies the earth, including its surface, interior and history and the processes that have altered it through time. It embraces investigation of the natural environment both in the field and in the laboratory. The Geology Department occupies laboratories, classrooms and offices constructed in 1976 in the Environmental Studies Center. Geology laboratory facilities and equipment are available for Geographic Information System and computational geology, X-ray diffraction, atomic absorption, sedimentation, air photo interpretation, flume and wave tank studies, paleomagnetic analysis, near-surface geophysics, seismology, geochemistry, and petrography, x-ray fluorescence, laser ablation-ICP-MS. Additional equipment and facilities are available through the Geology Department's affiliation with the Advanced Materials Science and Engineering Center (AMSEC).

#### Programs

## Bachelor of Arts

### Geology, BA

Department of Geology, College of Science and Engineering

**64-76 credits**

Objectives of the department are varied, including preparation of undergraduate and graduate students for graduate school and careers as professional geoscientists and also preparation of earth science teachers at the primary and secondary levels.

A wide variety of geologic phenomena in the adjacent Cascade Range and the marine environment of Salish Sea provide a broad spectrum of geologic features for study.

The department offers BA, BAE, BS and MS degrees plus specialized courses in the following subjects: economic geology; environmental geology; geochemistry; geomorphology; geophysics; glacial geology; hydrology; paleomagnetism; paleontology; petrology; planetary geology; sedimentation; seismology; stratigraphy; and structure and tectonics.

### Student Involvement in Research

The faculty in the Geology Department are active in a wide variety of ongoing research projects that frequently involve undergraduate and graduate students in special projects and thesis projects or provide employment. Some of this research is funded or partially supported from grants to individual faculty members from the National Science Foundation, U.S. Geological Survey, National Parks Commission, Office of Ecology and geological-related companies. Many of these projects are in the Western Washington region, others include investigations in other parts of the United States, Canada, overseas, or at sea as part of larger oceanographic projects.

### Writing Proficiency Course Guidelines

The geology department has a multi-tiered system for upper division writing proficiency courses. Courses are assigned writing proficiency points based on the percentage of the course grade that is determined by writing assignments. A minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C- is required.

# GEOLOGY

## Introduction/What is the Study of Geology?

A Geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. How severe will the global warming trend be? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

## Why Consider a Geology Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

The BA degree in geology is designed for students who want to study geology, but who are not intending to work as professional geologists. This degree is appropriate for someone interested in pursuing a liberal arts education with a less rigorous course of study in geology and supporting sciences than students in the BS degree. Thus students are allowed more flexibility for additional courses that complement their goals. An accompanying minor in one of the sciences or in mathematics is recommended.

### Contact Information

#### Department Chair

Bernie Housen  
Environmental Studies 240A  
360-650-3581  
Bernard.Housen@wwu.edu

#### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

### Sample Careers

National Park Service | Department of Natural Resources | NASA | U.S. Forest Service | U.S. Army Corps of Engineers | Museum Curator | Science writer/journalist | Ecotourism | Lifetime appreciation of geology

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Phase I: Students can declare as a Phase I major at any time as long as they are in good academic standing. Students can declare and complete a Geology minor, a BA in Geology, or a BA in Education Earth Science or Earth Science/General Science without advancing to Phase II.

Students who wish to earn a BS Geology or BS Geophysics degree must complete a set of preparatory courses for admission into these degree programs. Students must earn a cumulative GPA of 2.0 or higher in this set of preparatory courses, and be in good academic standing to qualify for admission. Priority for admission will be given to students who have a GPA of 2.5 or higher in these preparatory courses; students with a lower GPA will be admitted on a space-available basis.

Preparatory courses for BS Geology:

- GEOL 211, GEOL 212 and GEOL 213
- one of GEOL 306, GEOL 310, GEOL 318, or GEOL 352
- CHEM 121, MATH 124

Preparatory courses in BS Geophysics:

- GEOL 211, GEOL 352
- PHYS 161, PHYS 162
- MATH 124

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CHEM 121 - General Chemistry I
- Choose one of the following options:
  - GEOL 211 - Physical Geology
  - or
  - GEOL 101 - Introduction to Geology
  - and
  - GEOL 211A - Physical Geology Review
  - Or
  - HNRS 212 - Colloquium in Geology
  - or
  - SCED 202 - Matter and Energy in Earth Systems
  - and
  - GEOL 211A - Physical Geology Review
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
  - or
  - ENVS 320 - GIS I: Introduction to Geographic Information Science
- GEOL 311 - Earth Materials
  - or
  - GEOL 306 - Mineralogy
  - and
  - GEOL 406 - Igneous and Metamorphic Petrology
- GEOL 310 - Geomorphology
- MATH 124 - Calculus and Analytic Geometry I
  - or
  - MATH 240 - Introduction to Statistics
- 15-19 credits under advisement from geology courses 300 level and above for a total of 45 credits.
- Choose either:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
- Two additional courses from the following:
  - MATH 125 - Calculus and Analytic Geometry II
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - PHYS 116 - Principles of Physics III
  - PHYS 163 - Physics with Calculus III
  - ASTR 315 - The Solar System
  - ENVS 327 - The Soil Environment
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I

# GEOLOGY

## Departmental Honors and Distinctions

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Bachelor of Arts in Education

### Earth Science — Elementary, BAE

Department of Geology, College of Science and Engineering

**54-61 credits**

#### Introduction

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

#### Why Consider an Earth Science - Elementary Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the geosciences may be the career for you.

Contact Information		
<b>Department Chair</b> Bernie Housen Environmental Studies 240A 360-650-3581 Bernard.Housen@wwu.edu	<b>Undergraduate Advisor</b> Theresa Tripp Environmental Studies 240 360-650-3582 Theresa.Tripp@wwu.edu	<b>Education Advisor</b> Susan DeBari Environmental Studies 237 360-650-3588 Susan.DeBari@wwu.edu
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wwu.edu/eled/elementary-education">https://wce.wwu.edu/eled/elementary-education</a>	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948

Sample Careers
Elementary Teacher
Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements. This major does not lead to an endorsement in Earth & Space Science.

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students are admitted to the BA or BS major once they have completed GEOL 211. (NOTE: Grades of D-, D, or D+ are not acceptable for major and supporting courses.) Students must apply to the department for admission to the major.

### **Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### **Requirements**

- CHEM 121 - General Chemistry I
- GEOL 212 - Historical Geology
- GEOL 252 - The Earth and Its Weather
- GEOL 340 - Geological Oceanography
- MATH 114 - Precalculus I
- SCED 201 - Matter and Energy in Physical Systems
- SCED 202 - Matter and Energy in Earth Systems
- SCED 203 - Matter and Energy in Life Systems
- SCED 204 - Matter and Energy in Chemical Systems
- SCED 492 - Field Experience in Middle School Science
- One course from:
  - GEOL 211 - Physical Geology
  - GEOL 211A - Physical Geology Review
- Choose either:
  - GEOL 311 - Earth Materials
  - Or the following pair of courses
  - GEOL 306 - Mineralogy AND
  - GEOL 406 - Igneous and Metamorphic Petrology
- One course from:
  - PHYS 101 - Physics Analysis
  - PHYS 104 - Physics Applications
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets

### **Additional Requirements**

### **Elementary Education Professional Program Requirements (100-103 credits)**

Department of Elementary Education, Woodring College of Education

### **Introduction**

## GEOLOGY

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

### Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors.



Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Earth Science — Secondary, BAE

Department of Geology, College of Science and Engineering

### 75-90 credits

#### Introduction

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations.

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, geoscientists seek to reconstruct the past and anticipate the future.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

#### Why Consider an Earth Science - Secondary Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? Would you like to share this information with middle or high school students? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

#### Contact Information

##### Geology Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

##### Secondary Education Professional Program Information

##### Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

##### Earth Science Education Advisor

Susan DeBari  
Environmental Studies 327  
360-650-3588  
Susan.Debari@wwu.edu

##### Secondary Education Program Coordinator

Christina Carlson  
Miller Hall 401A  
360-650-3327  
Christina.Carlson@wwu.edu

#### Sample Careers

Secondary Education Teacher (Grades 5-12)

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

# GEOLOGY

## How to Declare (Admission and Declaration Process):

The geology department recommends for teaching endorsement those students who have satisfactorily completed requirements for the bachelor's degree in education with 1) an earth science secondary major or 2) a geology minor combined with a major in one of the other physical or biological sciences.

This program must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

This major leads to an endorsement in Earth & Space Science.

Go to the Geology Department website for more information on Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Phase I: Students can declare as a Phase I major at any time as long as they are in good academic standing. Students can declare and complete a Geology minor, a BA in Geology, or a BA in Education Earth Science or Earth Science/General Science without advancing to Phase II.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

## Requirements

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 252 - The Earth and Its Weather
- GEOL 310 - Geomorphology
- GEOL 340 - Geological Oceanography
- MATH 240 - Introduction to Statistics
- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- One course from:
  - GEOL 211 - Physical Geology
  - GEOL 211A - Physical Geology Review
  - HNRS 212 - Colloquium in Geology
- Choose either:
  - GEOL 311 - Earth Materials
  - or
  - GEOL 306 - Mineralogy
  - and
  - GEOL 406 - Igneous and Metamorphic Petrology
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- Choose either:
  - MATH 114 - Precalculus I
  - and
  - MATH 115 - Precalculus II
  - or complete MATH 124 - Calculus and Analytic Geometry I
- Electives (choose two of the following):

GEOL 303 - Dinosaurs and Their Environment  
 GEOL 308 - Earthquakes  
 GEOL 309 - Volcanology  
 GEOL 314 - Engineering Geology  
 GEOL 316 - Research in Marine Paleontology  
 GEOL 318 - Structural Geology  
 GEOL 407 - Advanced Petrography  
 GEOL 414 - Geology of Washington  
 GEOL 415 - Sedimentology and Stratigraphy  
 GEOL 430 - Image Interpretation  
 GEOL 440 - Glacial Geology

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

### Earth Science/General Science — Secondary, BAE

Combined major offered by the Department of Geology, College of Science and Engineering and the Department of Science Education, College of Science and Engineering.

### 94-108 credits

#### Introduction

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

## GEOLOGY

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations.

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, geoscientists seek to reconstruct the past and anticipate the future.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Why Consider an Earth Science/General Science - Secondary Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? Would you like to share this information with middle or high school students? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

#### Contact Information

##### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

##### Education Advisor

Susan DeBari  
Environmental Studies 237  
360-650-3588  
Susan.DeBari@wwu.edu

##### General Science Education Advisor

Edward E. Geary  
Science, Mathematics, &  
Technology Education 250D  
360-650-3637  
Edward.Geary@wwu.edu

##### Secondary Education Website

<https://wce.wwu.edu/sec/secondary-education>

##### Secondary Education Professional Program Information Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

##### Secondary Education Program Coordinator

Christina Carlson  
Miller Hall 401A  
360-650-3327  
Christina.Carlson@wwu.edu

#### Sample Careers

Secondary Education Teacher (Grades 5-12)

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The geology department recommends for teaching endorsement those students who have satisfactorily completed requirements for the bachelor's degree in education with 1) an earth science secondary major or 2) a geology minor combined with a major in one of the other physical or biological sciences.

This program must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

This major leads to recommendation for teaching endorsements in Earth & Space Science and Science.

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Phase I: Students can declare as a Phase I major at any time as long as they are in good academic standing. Students can declare and complete a Geology minor, a BA in Geology, or a BA in Education Earth Science or Earth Science/General Science without advancing to Phase II.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

## Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 252 - The Earth and Its Weather
- GEOL 310 - Geomorphology
- GEOL 340 - Geological Oceanography
- MATH 240 - Introduction to Statistics
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- One course from:
  - GEOL 211 - Physical Geology
  - GEOL 211A - Physical Geology Review
  - HNRS 212 - Colloquium in Geology
- Choose either:
  - GEOL 311 - Earth Materials
  - or
  - GEOL 306 - Mineralogy
  - and
  - GEOL 406 - Igneous and Metamorphic Petrology
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- Choose either:
  - MATH 114 - Precalculus I
  - and
  - MATH 115 - Precalculus II
  - or complete MATH 124 - Calculus and Analytic Geometry I
- Choose either:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
- At least one elective from:
  - GEOL 303 - Dinosaurs and Their Environment
  - GEOL 308 - Earthquakes
  - GEOL 309 - Volcanology
  - GEOL 314 - Engineering Geology
  - GEOL 316 - Research in Marine Paleontology
  - GEOL 318 - Structural Geology
  - GEOL 407 - Advanced Petrography
  - GEOL 414 - Geology of Washington
  - GEOL 415 - Sedimentology and Stratigraphy
  - GEOL 430 - Image Interpretation

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GEOL 440 - Glacial Geology

## Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

# Bachelor of Science

## Geology, BS

Department of Geology, College of Science and Engineering

**101-114 credits**

### Introduction

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. How extensive is the global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

## Why Consider a Geology Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the Geosciences could offer a good career for you.

This Bachelor of Science major is designed to provide students with a broad background in geology. Completion of this program will prepare students for a variety of careers in geology or graduate work in geology. This program is recommended for students who are preparing to become professional geologists and intend to enter industry or enroll in a graduate program upon completion of the degree.

### Contact Information

#### Department Chair

Bernie Housen  
Environmental Studies 240A  
360-650-3581  
Bernard.Housen@wwu.edu

#### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

### Sample Careers

U.S. Geological Survey | Departmental of Natural Resources | Oil Exploration | Mining Geologist | NASA | U.S. Forest Service | Engineering Geologist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Phase I: Students can declare as a Phase I major at any time as long as they are in good academic standing. Students can declare and complete a Geology minor, a BA in Geology, or a BA in Education Earth Science or Earth Science/General Science without advancing to Phase II.

Students who wish to earn the BS Geology degree must complete a set of preparatory courses for admission into these degree programs. Students must earn a cumulative GPA of 2.0 or higher in this set of preparatory courses, and be in good academic standing to qualify for admission. Priority for admission will be given to students who have a GPA of 2.5 or higher in these preparatory courses; students with a lower GPA will be admitted on a space-available basis.

Preparatory courses for BS Geology:

- GEOL 211, GEOL 212 and GEOL 213
- one of GEOL 306, GEOL 310, GEOL 318, or GEOL 352
- CHEM 121, MATH 124

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Program

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- Choose one of the following options:  
GEOL 211 - Physical Geology

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- or
- GEOL 101 - Introduction to Geology
- and
- GEOL 211A - Physical Geology Review
- Or
- HNRS 212 - Colloquium in Geology
- or
- SCED 202 - Matter and Energy in Earth Systems
- and
- GEOL 211A - Physical Geology Review
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology (ENVS 320 may be substituted for GEOL 213)
- GEOL 306 - Mineralogy
- GEOL 310 - Geomorphology
- GEOL 318 - Structural Geology
- GEOL 352 - Introduction to Geophysics
- GEOL 406 - Igneous and Metamorphic Petrology
- GEOL 409 - Field Methods and Theory
- GEOL 410 - Geologic Mapping
- GEOL 415 - Sedimentology and Stratigraphy
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - and
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - and
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus

## Elective courses:

- One course from:
  - GEOL 314 - Engineering Geology
  - GEOL 316 - Research in Marine Paleontology
- One course from:
  - GEOL 407 - Advanced Petrography
  - GEOL 452 - Applied Geophysics
  - GEOL 473 - Hydrogeology
- Two of any other 400-level Geology courses (excluding GEOL 401A and GEOL 401B)
- One course from:
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 204 - Elementary Linear Algebra
  - MATH 224 - Multivariable Calculus and Geometry I
  - MATH 240 - Introduction to Statistics
  - MATH 341 - Probability and Statistical Inference

## Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.



## Geophysics, BS

Department of Geology, College of Science and Engineering

**96-110 credits**

### Introduction

A Geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. How severe will the global warming trend be? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

### Why Consider a Geophysics Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

This program is recommended for students who are interested in applications of physics as a means of understanding a range of geological processes. Geophysics is distinct from Geology in that a more intensive set of Math and Physics courses, and applications of these skills, are required. Students who complete this degree will be prepared to continue to graduate studies in geology, geophysics, planetary geology/geophysics, physics, or other related fields, or to enter into industry. Students are strongly encouraged to complete a senior thesis project as part of this degree, providing them with an excellent capstone experience. Declaration of this major requires Geol 211, and a completed advising session with a Geophysics faculty advisor.

#### Contact Information

##### Department Chair

Bernie Housen  
Environmental Studies 240A  
360-650-3581  
Bernie.Housen@wwu.edu

##### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

#### Sample Careers

U.S. Geological Survey | Departmental of Natural Resources | Oil Exploration | Mining Geologist | NASA | U.S. Forest Service | Engineering Geologist | NOAA

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Phase I: Students can declare as a Phase I major at any time as long as they are in good academic standing. Students must apply to the department for admission to the major. Students are admitted to the BS major following a completed advising session with a Geophysics faculty advisor.

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Phase II: Students who wish to earn the BS Geophysics degree must complete a set of preparatory courses for admission into Phase II of the degree program. Students must earn a cumulative GPA of 2.0 or higher in this set of preparatory courses, and be in good academic standing, for successful admission.

Preparatory courses for BS Geophysics:

- GEOL 211, GEOL 352
- PHYS 161, PHYS 162
- MATH 124

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CHEM 121 - General Chemistry I
- Choose one of the following options:
  - GEOL 211 - Physical Geology
  - or
  - GEOL 101 - Introduction to Geology
  - and
  - GEOL 211A - Physical Geology Review
  - Or
  - HNRS 212 - Colloquium in Geology
  - or
  - SCED 202 - Matter and Energy in Earth Systems
  - and
  - GEOL 211A - Physical Geology Review
- GEOL 213 - GIS in Geology
- or
- CSCI 140 - Programming Fundamentals in C++
- or
- CSCI 141 - Computer Programming I
- GEOL 311 - Earth Materials
- GEOL 318 - Structural Geology
- GEOL 352 - Introduction to Geophysics
- GEOL 452 - Applied Geophysics
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 226 - Physics with Calculus IV
- PHYS 326 - Tools and Data Analysis
- PHYS 363 - Classical Mechanics
- PHYS 485 - Mathematical Physics
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - and
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
  - or
  - MATH 204 - Elementary Linear Algebra
  - MATH 304 - Linear Algebra
  - MATH 331 - Ordinary Differential Equations
- MATH 224 - Multivariable Calculus and Geometry I
- Five courses from the following electives:

ASTR 315 - The Solar System  
 GEOL 306 - Mineralogy  
 GEOL 314 - Engineering Geology  
 GEOL 412 - Tectonic Geomorphology  
 GEOL 451 - Active Tectonics Seminar  
 GEOL 453 - Plate Tectonics  
 GEOL 454 - Magnetic Fabrics and Geologic Processes  
 GEOL 457 - Practical Paleomagnetism  
 GEOL 463 - Introduction to Seismology  
 GEOL 464 - Mantle Processes  
 GEOL 473 - Hydrogeology  
 GEOL 490 - Senior Thesis (A minimum of 3 credits and maximum of 5 credits)  
 MATH 225 - Multivariable Calculus and Geometry II  
 MATH 430 - Fourier Series and Applications to Partial Differential Equations  
 PHYS 368 - Electromagnetism I  
 PHYS 369 - Electromagnetism II  
 PHYS 419 - Professional Writing for Physicists  
 PHYS 486 - Computational Physics

### Senior Thesis

An undergraduate thesis is an excellent way to develop research skills, establish closer working relationships with faculty, and gain a more in-depth knowledge of geology. Completion of a thesis is also a notable achievement that highlights a student's ability to do research, providing tangible evidence of research ability to either graduate schools or potential employers. Thesis options are available for the BA and BS degrees in geology. Students interested in pursuing a senior thesis should contact potential advisors during their junior year to discuss possible thesis topics. A formal application to the department must be made, and accepted, prior to the start of the thesis project.

### Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Master of Science

### Geology, Thesis, MS

College of Science and Engineering

#### Graduate Faculty

**Amos, C. B.**, PhD, tectonics, surface processes  
**Caplan-Auerbach, J.**, PhD, geophysics, seismology  
**Clark, D.H.**, PhD, glacial geology  
**DeBari, S.M.**, PhD, petrology, science education  
**Foreman, B.Z.**, PhD, stratigraphy, sedimentology  
**Geary, E.E.**, PhD, igneous and metamorphic petrology, science education  
**Hansen, T.A.**, PhD, paleontology  
**Housen, B.A.**, PhD, geophysics  
**Linneman, S.R.**, PhD, geomorphology, science education  
**Mitchell, R.J.**, PhD, hydrogeology, watershed hydrology, environmental and engineering geology  
**Rice, M.S.**, PhD, planetary geology and geophysics  
**Schermer, E.R.**, PhD, tectonics, structural geology, geochronology  
**Stelling, P.**, PhD, igneous petrology, volcanology, geothermal research

# GEOLOGY

## Emeritus Faculty

**Babcock, R.S.**, geochemistry, petrology.  
**Beck, Myrl E., Jr.**, geophysics, paleomagnetism.  
**Berg, R.**, remote sensing, surface computational studies.  
**Brown, E.H.**, metamorphic petrology, geochemistry.  
**Easterbrook, Don**, geomorphology, glacial geology.  
**Engebretson, D.C.**, PhD, tectonics, paleomagnetism.  
**Talbot, James L.**, structural geology, tectonics.

Program Advisor: Dr. Bernard Housen, Environmental Studies Center 240, 360-650-3581

## Program Description and Goals

Western Washington University offers a Masters program in Geology that aims to prepare students for professional employment in geoscience careers in the Pacific Northwest and beyond or for continuing graduate studies at the doctoral level. We specialize in structure/tectonics, petrology, volcanology, geomorphology, geophysics, hydrogeology and environmental/engineering geology, geothermal energy, sedimentology, planetary geology, and geoscience education.

This program normally leads to employment in consulting firms; in local, state, or federal government resource-based or planning agencies; and in teaching at community colleges or at a secondary level. The degree also serves as a foundation for graduate studies beyond the M.S. level, and for those interested in pursuing related careers, such as environmental law, natural resource management, or policy. The Department encourages an integrative, multi-disciplinary approach.

The M.S. program produces professional geoscientists with the ability to conduct original and meaningful scientific research. Graduates possess a broad grounding in geosciences and sophistication in their area of concentration.

## Prerequisites

Students with a bachelor's degree and who meet the requirements of the Graduate School are invited to apply for admission to the graduate program in geology. Students with a BS/BA degree in geology, which includes a recognized geology field course, generally will be offered full admittance into the program provided they have the appropriate math, chemistry, and physics background. Prerequisite course work may be necessary, depending on the applicant's chosen field of study. Applicants without a BS/BA degree in geology will need to take a minimum of 19 quarter credits, including physical geology, historical geology, stratigraphy/sedimentology, mineralogy, petrology, geomorphology, structural geology, geophysics, and a recognized geology field camp, up to a maximum of 42 geology credits, which may include additional prerequisites in chemistry, physics and math, depending on each individual situation. Students who have not completed these courses before entering the geology MS program must do so and maintain an average of B or better in prerequisite courses before being advanced to candidacy. Courses taken to make up these deficiencies are not counted toward the MS degree.

## Application Information

**Specific Test Requirements:** Graduate Record Examination (GRE).

**Deadline:** The geology department prefers to admit students to enter in fall quarter. Admittance to the program also will depend on the availability of an advisor in the student's area of interest.

**TA Deadlines:** To be considered for a teaching assistantship, application and supporting materials must be on file by January 15.

## Supporting Materials:

- A statement of the student's background and purpose
- Reference letters
- Official transcripts

## Program Requirements (45 to 48 credits)

### Required Coursework:

- 35 or more credits of graduate level courses (500- and 600-level) including 6 credits of GEOL 595
- 10 or less credits from 400-level courses.
- The 600-level credits shall include 12-15 credits of GEOL 690.

### Electives in Specialization

Geology and supporting courses are selected under advisement through the department chair and the chair of the thesis committee. Decisions about those courses should be made as soon as possible in the student's graduate career.

## Minor

### Geology Minor

Department of Geology, College of Science and Engineering

#### 23-26 credits

#### Introduction/What is the Study of Geology?

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. How extensive is the global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

#### Why Consider a Geology Minor?

The minor in geology is designed for students who want some preparation in geology to accompany their major course of study. Students majoring in Biology, Environmental Studies, Environmental Science, Chemistry, Computer Science, Anthropology, Journalism, etc. may find that an understanding of Earth processes will be useful in a variety of careers. Thus students minoring in geology are allowed extensive flexibility for selecting courses that complement their goals.

#### Contact Information

##### Department Chair

Bernie Housen  
Environmental Studies 240A  
360-650-3581  
Bernie.Housen@wwu.edu

##### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### Grade Requirements

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A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- Choose one of the following options:
  - GEOL 211 - Physical Geology
  - Or
  - GEOL 101 - Introduction to Geology
  - and
  - GEOL 211A - Physical Geology Review
  - Or
  - HNRS 212 - Colloquium in Geology
  - Or
  - SCED 202 - Matter and Energy in Earth Systems
  - and
  - GEOL 211A - Physical Geology Review
- GEOL 212 - Historical Geology
- 15-16 additional credits from geology courses 200 level and above.

## Geology Courses

### GEOL 101 - Introduction to Geology

Major ideas of modern geoscience; the study of rocks and minerals, plate tectonics, geologic time, the hydrologic cycle; processes that have produced the Earth and its landforms. Some lecture sections will be focused on specific topics within the geological sciences, such as planetary geology, climate and climate change, or National Parks. Includes lab. Prospective geology majors, students who had high school geology, and those planning to take GEOL 212 should take GEOL 211 in lieu of GEOL 101.

**Prerequisites & Notes:** MATH 107 or MATH 112 with concurrency or higher

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### GEOL 204 - Geology and Society

Thematic approach to geology, with different themes exploring the relationship between scientific ways of knowing, and geology in particular, with society. Repeatable once as an elective with different topics. May be taken only once for GUR credit.

**Prerequisites & Notes:** GEOL 101 or BIOL 101 or CHEM 101 or PHYS 101 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

### GEOL 211 - Physical Geology

Course for science and geology majors, in which the origin, composition and structure of earth are

explored. Identification of common rocks and minerals; the evolution of the surface features and structures of continents and interpretation of landforms from maps are emphasized. Will include substantial quantitative work. Students intending to major in Geology or affiliated sciences should take GEOL 211 in lieu of GEOL 101. Successful completion of both GEOL 101 and GEOL 211A may substitute for GEOL 211 in all Geology Department requirements.

**Prerequisites & Notes:** MATH 114 with concurrency, or higher.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### GEOL 211A - Physical Geology Review

This is a laboratory-only course for students who wish to enter the Geology major or minor, or take upper division Geology courses, and have had a general introduction to geology. Emphasis on rock and mineral identification, geologic structures, map interpretation. Successful completion of both GEOL 101 and GEOL 211A or SCED 202 and GEOL 211A may substitute for GEOL 211 in all Geology Department requirements. Geology 211A may not be used to fulfill general education requirements.

**Prerequisites & Notes:** GEOL 101 or SCED 202 with a grade of B- or better; MATH 114 with concurrency or higher.

**Credits:** 2

**Grade Mode:** Letter

### GEOL 212 - Historical Geology

Evolution of the major features of the earth's surface and of life; history of the ocean basins, continents and mountain belts related to the

theory of plate tectonics; geologic history of North America and the Pacific Northwest.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; and MATH 114 or higher.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### GEOL 213 - GIS in Geology

An introduction to the fundamental elements of geographic information systems (GIS) for spatial data analysis in geology. Emphasis on data sources and ArcGIS tools for data input, display, manipulation, analysis, and output.

**Prerequisites & Notes:** Geology major status or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### GEOL 252 - The Earth and Its Weather

An introduction to meteorology from a global viewpoint. A study of the earth's atmosphere, including weather observation and forecasting. Measurement and description of atmospheric properties.

**Prerequisites & Notes:** GEOL 101, CHEM 101 or PHYS 101

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### GEOL 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### GEOL 301 - Geology Writing Co-Requisite

This course is a writing-intensive supplement to a geology course where students will explore research topics and learn to write scientific papers about those topics. Repeatable up to 3 credits.

**Prerequisites & Notes:** Co-requisite: Any upper division geology course that does not currently have writing points; excluding GEOL 401, GEOL 409 and GEOL 410. Instructor permission required.

**Credits:** 1

**Grade Mode:** Letter

### GEOL 303 - Dinosaurs and Their Environment

Dinosaurs and their world; their biology, behavior, evolution, and what the world was like during their reign.

**Prerequisites & Notes:** GEOL 101 or GEOL 211; or SCED 202 and GEOL 211A; or BIOL 101; or BIOL 204.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

### GEOL 306 - Mineralogy

Introduction to crystal chemistry and crystallography. Origin, occurrence and classification of common minerals; physical and chemical properties of minerals used in identification. Basic petrographic microscopy techniques and identification of common rock-forming minerals in thin-section.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; CHEM 121; CHEM 122 or higher or concurrent.

**Credits:** 4

**Grade Mode:** Letter

### GEOL 308 - Earthquakes

This course is a qualitative survey of the causes, effects and dynamics of local and global earthquakes. Topics include wave propagation, earth structure, the global distribution of earthquakes, faulting mechanisms, earthquake magnitude, earthquake prediction and seismic hazard. Emphasis is placed on the investigation of earthquake behavior through case studies of historical earthquakes.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A or SCED 202; and MATH 114 or higher.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

### GEOL 309 - Volcanology

Processes, products, and hazards of volcanic eruptions. Topics to include eruptive mechanisms, volcanic landforms and their relation to the composition and physical properties of magmas, emplacement mechanisms of pyroclastic flows and characteristics of their deposits, calderas, volcanic gases, effects of volcanic eruptions on climate and the atmosphere, volcanic hazards and their mitigation, and geothermal energy and mineral resources.

**Prerequisites & Notes:** GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A

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**Credits:** 3

**Grade Mode:** Letter

## **GEOL 309A - Volcanology Lab**

Optional lab to accompany GEOL 309. Observation and interpretation of volcanic rocks and interpretation of volcanic eruption styles.

**Prerequisites & Notes:** corequisite: GEOL 309

**Credits:** 1

**Grade Mode:** Letter

## **GEOL 310 - Geomorphology**

Origin and evolution of topographic features by surface processes; analysis of glaciers, streams, wind, waves, ground water and other agents in development of landforms.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; GEOL 213; MATH 114 or higher

**Credits:** 5

**Grade Mode:** Letter

## **GEOL 311 - Earth Materials**

Examines geologic materials (minerals, rocks, and soils) from the scale of atoms to tectonic plates. Lecture foci range from the esoteric (mineral symmetry) to the practical (economic minerals). Laboratory exercises emphasize the scientific skills of observation, identification, and classification in lab and in the field. Field trips are required.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; CHEM 121 or higher

**Credits:** 5

**Grade Mode:** Letter

## **GEOL 314 - Engineering Geology**

Introduction to the engineering properties of rock and soil surficial materials and their significance in civil works and geological processes such as rock slides, soil-slope stability, and liquefaction.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; PHYS 121 or PHYS 161.

**Credits:** 4

**Grade Mode:** Letter

## **GEOL 315 - Minerals, Energy and Society**

Mineral resources are vital to society, and yet they are nonrenewable, expensive to find, unevenly distributed, and their extraction and consumption can be environmentally damaging. Can we make economically and environmentally sound decisions regarding land-use planning, development vs. conservation, mining vs. environmental protection, recycling vs. waste?

**Prerequisites & Notes:** GEOL 101 or GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SCI

## **GEOL 316 - Research in Marine Paleontology**

A problem-solving approach, working on a sequence of problems with reports that build to a core project, report and presentation. Begins with the classification and ecology of marine organisms. Research projects involve data gathering and analysis of fossil samples. Emphasizes hypothesis testing, writing and sharing of data in collaborative research.

**Prerequisites & Notes:** GEOL 212

**Credits:** 4

**Grade Mode:** Letter

## **GEOL 318 - Structural Geology**

An overview of deformation in the earth's crust and introduction to tools for analysis of geologic structures. Topics include geometry and development of faults, folds and rock fabrics; stress, strain, and rheology; interpretation of geologic maps and cross sections. Field and laboratory exercises are major components. One section each year is taught entirely in the field.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; GEOL 212; PHYS 114 or higher

**Credits:** 5

**Grade Mode:** Letter

## **GEOL 340 - Geological Oceanography**

In this course students will gain an understanding of the nature and origin of oceanic crust and lithosphere. Large scale chemical and geological processes associated with ocean basins, and seawater-rock interactions, and the role of oceanic circulation in climate and climate change will be studied. Additional topics will be included based on student interest, which will be explored via independent reading assignment.

**Prerequisites & Notes:** GEOL 101 and GEOL 211A; or GEOL 211 or SCED 202.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

## **GEOL 352 - Introduction to Geophysics**

Basic elements of geomagnetism, seismology, gravity and heat flow with reference to the internal structure of the earth.



**Prerequisites & Notes:** GEOL 211 or GEOL 211A; PHYS 121 and PHYS 122, or PHYS 161 and PHYS 162.

**Credits:** 5

**Grade Mode:** Letter

### **GEOL 396A - Honors Tutorial**

Repeatable with no maximum.

**Credits:** 2-5

**Grade Mode:** Letter

### **GEOL 396B - Honors Tutorial**

Repeatable with no maximum.

**Credits:** 2-5

**Grade Mode:** Letter

### **GEOL 396C - Honors Tutorial**

Repeatable with no maximum.

**Credits:** 2-5

**Grade Mode:** Letter

### **GEOL 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **GEOL 401A - Teaching Practicum**

Supervised teaching experience in the general geology laboratory. Students will assist in one 2-hour lab section per week. Repeatable to a maximum of 2 cr. S/U grading.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A, with a minimum grade of B or better, and permission of the chair.

**Credits:** 1

**Grade Mode:** S/U

### **GEOL 401B - Teaching Practicum**

Assisting faculty in teaching advanced undergraduate geology courses. Students will assist in two 2-hour lab sections per week in GEOL 211, or one 2-hour session per week in GEOL 212. Repeatable to a maximum of 4 cr. S/U grading.

**Prerequisites & Notes:** Permission of the chair;

student must have received a minimum of a B grade in the course for which they will be a Teaching Fellow.

**Credits:** 2

**Grade Mode:** S/U

### **GEOL 406 - Igneous and Metamorphic Petrology**

Origin, occurrence and classification of igneous and metamorphic rocks, hand specimen identification of rocks. In alternate years, one section that year is taught entirely in the field.

**Prerequisites & Notes:** GEOL 306; CHEM 121; CHEM 122 or higher or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 407 - Advanced Petrography**

Interaction of light with minerals. Advanced petrographic techniques and identification of minerals with the polarizing microscope. Study of rocks and minerals with a polarizing microscope.

**Prerequisites & Notes:** GEOL 406

**Credits:** 3

**Grade Mode:** Letter

### **GEOL 409 - Field Methods and Theory**

Methods of geological field investigations; includes use of field instruments and outcrop studies.

**Prerequisites & Notes:** GEOL 212; GEOL 318; GEOL 406; GEOL 415; Co-req GEOL 410. Concurrent or successive enrollment in GEOL 410 required.

**Credits:** 6

**Grade Mode:** Letter

### **GEOL 410 - Geologic Mapping**

Application of geological field methods to making geological maps and reports of specific areas; supervised investigation of one or more map areas.

**Prerequisites & Notes:** Co-requisite: GEOL 409

**Credits:** 6

**Grade Mode:** Letter

### **GEOL 411 - Field Geology of Western United States**

Geologic mapping and tectonic analysis of various field sites in the southern U.S. Cordillera, from the plate margin to the craton. Will include outcrop study, reading, independent field research, and discussion of tectonic evolution of the Cordillera.

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**Prerequisites & Notes:** GEOL 410 corequisite.

**Credits:** 3

**Grade Mode:** Letter

### GEOL 412 - Tectonic Geomorphology

This course will focus on interplays between tectonics, climate, and surface processes that shape landscapes in areas of active deformation. Topics covered will include the processes that control and build topography at the scale of mountain belts to individual fault zones. This course will draw upon tools and techniques from structural geology, geomorphology, GIS, geodesy, and geochronology.

**Prerequisites & Notes:** GEOL 310 and GEOL 318.

**Credits:** 4

**Grade Mode:** Letter

### GEOL 413 - Fluvial Geomorphology

Stream processes, equilibrium in fluvial environments, channel adjustments, mechanics of sediment erosion and transport. Weekly field trips.

**Prerequisites & Notes:** GEOL 310 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### GEOL 414 - Geology of Washington

The significant geologic features of Washington State; field studies. Offered summer only.

**Prerequisites & Notes:** GEOL 101 or GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A

**Credits:** 3-5

**Grade Mode:** Letter

### GEOL 415 - Sedimentology and Stratigraphy

Analysis of the transportation, deposition and consolidation of sediments; classification of sedimentary rocks; determination of depositional facies; principles of stratigraphic nomenclature.

**Prerequisites & Notes:** GEOL 212, GEOL 306, GEOL 310 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### GEOL 423 - Advanced Igneous Petrology

Advanced course on modern methods of igneous petrology. Focus on magma generation and evolution, utilizing major element, trace element, and isotope geochemistry. Interpretive methods include use of the petrographic microscope and geochemical modeling exercises. Individual

research projects required.

**Prerequisites & Notes:** GEOL 406

**Credits:** 4

**Grade Mode:** Letter

### GEOL 424 - Advanced Stratigraphy

Meso- and long-timescale behavior of depositional systems in response to sea-level, tectonics, and climate including field, experimental, and modeling approaches.

**Prerequisites & Notes:** GEOL 415; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### GEOL 425 - Advanced Metamorphic Petrology

Advanced course in metamorphic petrology. Emphasizes graphical and mathematical analysis of phase relations, and field and laboratory study of metamorphic structures, minerals and microstructures. Individual research projects performed and presented.

**Prerequisites & Notes:** GEOL 406; GEOL 407 or permission of instructor

**Credits:** 5

**Grade Mode:** Letter

### GEOL 428 - Depositional Environments

Depositional framework of marine and continental sedimentary basins. Study of the means by which depositional environments of sedimentary rocks are determined.

**Prerequisites & Notes:** GEOL 415 or equivalent

**Credits:** 3

**Grade Mode:** Letter

### GEOL 430 - Image Interpretation

Explores fundamental concepts of identifying and interpreting geologic features using remote imagery, including aerial photographs, topographic data (maps, DEMs), multispectral satellite images, and geophysical imagery. Emphasizes critical evaluation and development of multiple working hypotheses in creating geologic maps from images.

**Prerequisites & Notes:** GEOL 310; GEOL 318 recommended

**Credits:** 3

**Grade Mode:** Letter

### GEOL 432 - Ore Deposits

Classification, occurrence and origin of ore deposits; thin section and hand specimen study of

rock samples from selected mining districts.

**Prerequisites & Notes:** GEOL 306; GEOL 406 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 440 - Glacial Geology**

Explores fundamental concepts of glaciology and glacial geology. Topics include formation and dynamics of glaciers and glacier mass-balance, processes of glacial erosion, transport, and deposition, Quaternary climate change associated with global glaciations, and assessing effects of glaciation on the modern landscape. Includes field trips and research components.

**Prerequisites & Notes:** GEOL 310

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 450 - Advanced Topics in Structural Geology**

Analysis of geologic structures from microstructural to plate tectonic scales. Includes active and ancient structures, concepts of stress and strain, kinematics and mechanics of deformation, and modeling of deformation. Field trip and research project required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 406; GEOL 409 and GEOL 410 recommended

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 451 - Active Tectonics Seminar**

Study of active faults, associated crustal deformation and earthquakes. Examines the mechanics of faulting, earthquake seismology, and GPS geodesy. Regional emphasis on the Pacific Northwest.

**Prerequisites & Notes:** GEOL 318, GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 452 - Applied Geophysics**

Geophysical exploration techniques applied to geological problems. Theory and field application of gravity, magnetics, refraction and earthquake seismology, electrical resistivity and others. Class projects include depth-to-bedrock, buried and subsurface features, groundwater estimates and earthquake potential and grounds response.

**Prerequisites & Notes:** GEOL 352 or equivalent

**Credits:** 5

**Grade Mode:** Letter

### **GEOL 453 - Plate Tectonics**

Kinematics and dynamics of plate motions, with applications to geotectonics.

**Prerequisites & Notes:** GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 454 - Magnetic Fabrics and Geologic Processes**

Theory and laboratory measurement of magnetic anisotropy in rocks, sediments, and minerals. Emphasis on the use of magnetic anisotropy techniques to understand various geological processes including deformation, sediment transport, and magma flow and emplacement. Laboratory project and writing project included.

**Prerequisites & Notes:** GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 456 - Principles of Orogeny Seminar**

Study of geological and geophysical aspects of continental tectonics and mountain-building processes. Topics may include thermochronology, heat flow, metamorphic petrology, structural geology, tectonic geomorphology, plate tectonics, and geodesy. The combined lecture and seminar format requires reading and discussion of tectonics literature, and active participation and discussion by all students. Field trip and research project required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 352, GEOL 406, GEOL 409, GEOL 410

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 457 - Practical Paleomagnetism**

Application of rock magnetism and paleomagnetism to field-oriented research problems. Seminar style meetings, field trip(s), and laboratory measurements will focus on solution of an original research problem. Results will be used for a required research paper. Project topics will vary; examples include paleomagnetism of displaced terranes, magnetostratigraphy, magnetic fabrics, environmental magnetism.

**Prerequisites & Notes:** GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 461 - Analytical Geochemistry**

Introduction to analysis of rocks, soil and water. Methods include atomic absorption

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spectrophotometry, ion chromatography, gas chromatography and quadrupole mass spectrometry as well as gravimetric, volumetric and colorimetric analysis.

**Prerequisites & Notes:** GEOL 306; CHEM 123 or higher.

**Credits:** 2

**Grade Mode:** Letter

### GEOL 463 - Introduction to Seismology

Investigates the physics of earthquakes, the effects of earthquakes on our world and the insights into the planet provided by seismology. This class is a quantitative introduction to the study of local and global seismology. Topics include stress and strain, wave propagation, power spectra, earthquake magnitude, seismic hazard, earthquake prediction and associated hazards such as tsunamis and volcano seismology. Whenever possible, student will use real seismic data in their analyses.

**Prerequisites & Notes:** GEOL 318; GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### GEOL 464 - Mantle Processes

Investigates geologic and geophysical processes in Earth's mantle, convection, heat flux, the life cycle of lithosphere and the dynamics of mantle plumes. Compares results from geophysical and petrological studies.

**Prerequisites & Notes:** GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### GEOL 470 - Landslides and Slope Stability

This seminar will review current research on landslides and slope stability, including: landslide types and processes; landslide triggering mechanisms; soil and rock slope stability; soil and rock slope failure modes; landslide hazard analysis. Offered alternate years.

**Prerequisites & Notes:** GEOL 310; GEOL 314 or GEOL 318

**Credits:** 3

**Grade Mode:** Letter

### GEOL 472 - Surface Water Hydrology

Components of the hydrologic cycle, including precipitation, infiltration, evapotranspiration, and runoff, and their effect on a water balance in a watershed.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A;

MATH 124 or higher.

**Credits:** 4

**Grade Mode:** Letter

### GEOL 473 - Hydrogeology

Introduction to the geologic and hydrologic factors controlling the occurrence and movement of subsurface water. Applications in well hydraulics and groundwater site investigations.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; PHYS 161

**Credits:** 4

**Grade Mode:** Letter

### GEOL 474 - Ground Water Contamination

Introduction to the principles of some of the important physical, chemical, and biological processes that govern the transport, persistence, and/or degradation of pollutants in saturated and unsaturated groundwater systems.

**Prerequisites & Notes:** GEOL 473 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### GEOL 485 - Geothermal Energy

Understanding the thermodynamics, chemistry, geology and physics of developing and producing geothermal energy. Traditional geothermal electricity, Enhanced Geothermal Systems (EGS), direct use, ground-source heat pumps, and some economic and policy aspects are covered. Geologic and geophysical data are discussed and evaluated. The lab portion of the course will explore methods of geological evaluation of geothermal regions.

**Prerequisites & Notes:** GEOL 306

**Credits:** 4

**Grade Mode:** Letter

### GEOL 490 - Senior Thesis

Research project under direction of faculty. Repeatable to a maximum of 9 cr.

**Prerequisites & Notes:** senior standing

**Credits:** 1-5

**Grade Mode:** Letter

### GEOL 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for

General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **GEOL 501 - Teaching Practicum**

Supervised teaching experiences in undergraduate geology laboratories at the 300 level and above courses. Maximum of 2 credits can be applied toward student's graduate course work.

**Prerequisites & Notes:** Graduate status and permission of chair.

**Credits:** 2

**Grade Mode:** S/U

### **GEOL 512 - Tectonic Geomorphology**

This course will focus on interplays between tectonics, climate, and surface processes that shape landscapes in areas of active deformation. Topics covered will include the processes that control and build topography at the scale of mountain belts to individual fault zones. This course will draw upon tools and techniques from structural geology, geomorphology, GIS, geodesy, and geochronology.

**Prerequisites & Notes:** GEOL 310 and GEOL 318.

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 513 - Fluvial Geomorphology**

Stream processes, equilibrium in fluvial environments, channel adjustments, mechanics of sediment erosion and transport. Weekly field trips.

**Prerequisites & Notes:** GEOL 310 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 518 - Structural Geology and Tectonics of Washington**

Field methods of structural geology and introduction to the structural and tectonic evolution of Washington, focusing on the building of the Cascade Mountains. Taught during a three-week period prior to the beginning of fall quarter. Involves camping and field work throughout Washington state, including some strenuous hiking.

**Prerequisites & Notes:** GEOL 318 or equivalent, instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **GEOL 523 - Advanced Igneous Petrology**

Advanced course on modern methods of igneous petrology. Focus on magma generation and evolution, utilizing major element, trace element, and isotope geochemistry. Interpretive methods include use of the petrographic microscope and geochemical modeling exercises. Individual research projects required.

**Prerequisites & Notes:** GEOL 406, GEOL 407 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 524 - Advanced Stratigraphy**

Meso- and long-timescale behavior of depositional systems in response to sea-level, tectonics, and climate including field, experimental, and modeling approaches.

**Prerequisites & Notes:** GEOL 415 or equivalent.

**Credits:** 5

**Grade Mode:** Letter

### **GEOL 525 - Advanced Metamorphic Petrology**

Advanced course in metamorphic petrology. Emphasizes graphical and mathematical analysis of phase relations, and field and laboratory study of metamorphic structures, and microscope study of metamorphic structures, minerals and microstructures. Individual research projects performed and presented.

**Prerequisites & Notes:** GEOL 406, GEOL 407 or equivalent

**Credits:** 5

**Grade Mode:** Letter

### **GEOL 528 - Depositional Environments**

Depositional framework of marine and continental sedimentary basins. Study of the means by which depositional environments of sedimentary rocks are determined.

**Prerequisites & Notes:** GEOL 415 or equivalent

**Credits:** 3

**Grade Mode:** Letter

### **GEOL 530 - Image Interpretation**

Explores fundamental concepts of identifying and interpreting geological features using remote imagery, including aerial photographs, topographic data (maps, DEMs), multispectral satellite images, and geophysical imagery. Emphasizes critical evaluation and development of multiple working hypotheses in creating geologic maps from images.

**Prerequisites & Notes:** GEOL 310; GEOL 318 recommended

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**Credits:** 3

**Grade Mode:** Letter

## GEOL 532 - Ore Deposits

Classification, occurrence and origin of ore deposits; thin section and hand specimen study of rock samples from selected mining districts.

**Prerequisites & Notes:** GEOL 306; GEOL 406 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

## GEOL 540 - Glacial Geology

Explores fundamental concepts of glaciology and glacial geology. Topics include formation and dynamics of glaciers and glacier mass-balance, processes of glacial erosion, transport, and deposition, Quaternary climate change associated with global glaciations, and assessing effects of glaciation on the modern landscape. Includes field trips and research components.

**Prerequisites & Notes:** GEOL 310 or equivalent

**Credits:** 4

**Grade Mode:** Letter

## GEOL 550 - Advanced Topics in Structural Geology

Analysis of geologic structures from microstructural to plate tectonic scales. Includes active and ancient structures, concepts of stress and strain, kinematics and mechanics of deformation, and modeling of deformation. Field trip and research project required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 406; GEOL 409 and GEOL 410 recommended

**Credits:** 4

**Grade Mode:** Letter

## GEOL 551 - Active Tectonics Seminar

Study of active faults, associated crustal deformation and earthquakes. Examines the mechanics of faulting, earthquake seismology and GPS geodesy. Regional emphasis on the Pacific Northwest.

**Prerequisites & Notes:** GEOL 318, GEOL 352

**Credits:** 4

**Grade Mode:** Letter

## GEOL 552 - Applied Geophysics

Geophysical exploration techniques applied to geological problems. Theory and field application of gravity, magnetics, refraction and earthquake seismology, electrical resistivity and others. Class

projects include depth-to-bedrock, buried subsurface features, groundwater estimates and earthquake potential and grounds response.

**Prerequisites & Notes:** GEOL 352 or equivalent

**Credits:** 5

**Grade Mode:** Letter

## GEOL 553 - Plate Tectonics

Kinematics and dynamics of plate motions, with applications to geotectonics.

**Prerequisites & Notes:** GEOL 352

**Credits:** 4

**Grade Mode:** Letter

## GEOL 554 - Magnetic Fabrics and Geological Processes

Theory and laboratory measurement of magnetic anisotropy in rocks, sediments, and minerals. Emphasis on the use of magnetic anisotropy techniques to understand various geological processes including deformation, sediment transport, and magma flow and emplacement. Laboratory project and writing project included.

**Prerequisites & Notes:** GEOL 352 or equivalent

**Credits:** 4

**Grade Mode:** Letter

## GEOL 556 - Principles of Orogeny Seminar

Study of geological and geophysical aspects of continental tectonics and mountain-building processes. Topics may include thermochronology, heat flow, metamorphic petrology, structural geology, tectonic geomorphology, plate tectonics, and geodesy. The combined lecture and seminar format requires reading and discussion by all students. Field trip, research projects, and oral presentations required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 352, GEOL 406, GEOL 409, GEOL 410

**Credits:** 4

**Grade Mode:** Letter

## GEOL 557 - Practical Paleomagnetism

Application of rock magnetism and paleomagnetism to field-oriented research problems. Seminar style meetings, field trip(s), and laboratory measurements will focus on solution of an original research problem. Results will be used for a required research paper. Project topics will vary; examples include paleomagnetism of displaced terranes; magnetostratigraphy; magnetic fabrics, environmental magnetism.

**Prerequisites & Notes:** GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 558 - Paleomagnetism and Tectonics Lab Seminar**

Advanced instruction in the operation of paleomagnetic lab equipment, research techniques in rock and paleomagnetism, discussion and evaluation of current paleomagnetic literature. Seminar topics will focus on presentation of research results and current research in the field. Topics related to paleomagnetism and plate tectonics will vary each quarter. Repeatable for credit one time.

**Prerequisites & Notes:** GEOL 457 or GEOL 557

**Credits:** 1-2

**Grade Mode:** Letter

### **GEOL 559 - Rock Magnetism and Geomagnetic Field Lab**

The course will involve advanced instruction in the operation of paleomagnetic lab equipment, research techniques in rock and paleomagnetism, discussion and evaluation of current paleomagnetic literature. Seminar topics will focus on presentation of research results and current research in the field. Topics related to the geomagnetic field and rock magnetism will vary each quarter. Repeatable for credit one time.

**Prerequisites & Notes:** GEOL 457 or GEOL 557 or instructor permission

**Credits:** 1-2

**Grade Mode:** Letter

### **GEOL 561 - Analytical Geochemistry**

Applications of analytical chemistry to soil, water and rock samples. Methods include atomic absorption spectrophotometry, ion chromatography, gas chromatography, mass spectrometry and X-ray diffraction. Field collection techniques, sample preparation and data processing also are discussed. Course consists of two hours of lecture and two hours of lab per week.

**Prerequisites & Notes:** instructor permission

**Credits:** 2

**Grade Mode:** Letter

### **GEOL 563 - Introduction to Seismology**

Investigates the physics of earthquakes, the effects of earthquakes on our world and the insights into the planet provided by seismology. This class is a quantitative introduction to the study of local and global seismology. Topics include stress and strain, wave propagation, power

spectra, earthquake magnitude, seismic hazard, earthquake prediction and associated hazards such as tsunamis and volcano seismology. Whenever possible, students will use real seismic data in their analyses.

**Prerequisites & Notes:** GEOL 352

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 564 - Mantle Processes**

Investigates geologic and geophysical processes in Earth's mantle, including mantle convection, heat flux, the life cycle of lithosphere and the dynamics of mantle plumes. Compares results from geophysical and petrological studies. Students will be active in presenting material and leading class discussion.

**Prerequisites & Notes:** GEOL 352 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 570 - Landslides and Slope Stability**

This seminar will review current research on landslides and slope stability, including: landslide types and processes; landslide triggering mechanisms; soil and rock slope stability; soil and rock slope failure modes; landslide hazard analysis. Offered alternate years.

**Prerequisites & Notes:** GEOL 310; GEOL 318 or GEOL 314 or equivalent

**Credits:** 3

**Grade Mode:** Letter

### **GEOL 572 - Surface Water Hydrology**

Components of the hydrologic cycle and their interaction, including precipitation, infiltration, evapotranspiration, and runoff, and their effect on a water balance in a watershed.

**Prerequisites & Notes:** instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 573 - Hydrogeology**

Introduction to the geologic and hydrologic factors controlling the occurrence and movement of subsurface water. Applications in well hydraulics and groundwater site investigations.

**Prerequisites & Notes:** instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 574 - Ground Water Contamination**

## GEOLOGY

Introduction to the principles of some of the important physical, chemical, and biological processes that govern the transport, persistence, and/or degradation of pollutants in saturated and unsaturated groundwater systems.

**Prerequisites & Notes:** GEOL 573 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **GEOL 585 - Geothermal Energy**

Understanding the thermodynamics, chemistry, geology and physics of developing and producing geothermal energy. Traditional geothermal electricity, Enhanced Geothermal Systems (EGS), direct use, ground-source heat pumps, and some economic and policy aspects are covered. Geologic and geophysical data are discussed and evaluated. The lab portion of the course will explore methods of geological evaluation of geothermal regions. Graduate students will present papers and lead small group work.

**Prerequisites & Notes:** GEOL 306

**Credits:** 4

**Grade Mode:** Letter

### **GEOL 595 - Seminar in Contemporary Geology Problems**

Seminar and weekend field trips introduce geology graduate students to research problems. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** Graduate status in the department.

**Credits:** 2

**Grade Mode:** S/U

### **GEOL 690 - Thesis**

Thesis research, repeatable up to 15 credits.

**Credits:** 2-15

**Grade Mode:** Letter

## **Interdisciplinary Sciences, Technology, and Mathematics Courses**

### **ISTM 201 - Science Literacy**

Topics will vary somewhat with different instructors, but may include: Understanding the nature of science and what discriminates science from other ways of knowing. Discriminating among good science, junk science, and pseudoscience. Elementary statistics and how they can mislead.

Logical fallacies. Scientific topics in the news (e.g., creationism vs. evolutionism).

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI



# Materials Science

## Introduction

The field of Materials Science addresses the challenges of creating, understanding, and using new materials to meet the technological needs of the 21st century. Materials such as alloys, polymers and composites, and semiconductors play important roles in the modern economy where they are used in a wide range of applications, from clean energy to medicine, and aerospace to microelectronics. Materials Science is an interdisciplinary area of study exploring the broad spectrum of materials from basic atomic and molecular scales through macroscopic engineered products. At Western Washington University Materials Science is represented through a diversified and collaborative program based on an interdisciplinary set of courses, faculty, research projects and facilities drawn from several departments.

The Materials Science minor at Western Washington University complements major degree programs such as chemistry, engineering, geology, and physics by providing an interdisciplinary perspective preparing graduates to work at the boundaries between disciplines. Students electing the minor begin their studies in a four-course sequence teaching fundamental concepts and practical skills in materials preparation and characterization (MSCI 201, 320, 330 and 410). These courses are taught by faculty from several departments and involve a variety of facilities and instrumentation. Topics covered include: chemical, mechanical, electronic, and optical properties; polymers and composites, engineering alloys and ceramics, semiconductors and nanomaterials; and applications of materials in modern contexts such as photovoltaics, fuel cells, microelectronics, and geomaterials.

Culminating the minor is a capstone experience involving six credits of intensive research under the guidance of an AMSEC faculty mentor or an internship with a partner company. The research experience or internship is usually performed in the junior or senior year, although for students who become involved in research earlier, it may in some cases be part of a longer term project. Students should consult with the program advisor for assistance in arranging their experience. The capstone practicum is intended to provide opportunities to apply concepts learned in the classroom and laboratory, preparing professionals ready for graduate study or employment in industry.

## Faculty

**MARK E. BUSSELL** (1990) Director and Professor. BA, Reed College; PhD, University of California-Berkeley.

**JOHN ANTOS** (2012) Assistant Professor. BS, Ohio State University; PhD, University of California-Berkeley.

**ROBERT BERGER** (2013) Assistant Professor. A.B. Chemistry, Princeton University; PhD, Cornell University.

**MARION BRODHAGEN** (2006) Associate Professor. BS, University of Wisconsin; MS, PhD, Oregon State University.

**TANVEER CHAWLA** (2013) Assistant Professor. BE, Gulbarga University; MSME, Wayne State University; PhD (mechanical engineering), University of North Dakota.

**SUSAN M. DeBARI** (1998) Professor. BA, Cornell University; PhD, Stanford University.

**STEVEN R. EMORY** (2001) Associate Professor. BS, California Lutheran University; PhD, Indiana University.

**MILTON FROM** (1998) Associate Professor. BSc, University of Manitoba; MSc, PhD, McGill University.

**JOHN GILBERTSON** (2008) Assistant Professor. BA, Augustana College; MS, PhD, University of Oregon.

**NICOLE HOEKSTRA** (1998) Professor. BSME, MSME, University of Minnesota, Institute of Technology.

**BERNARD A. HOUSEN** (1997) Professor. BS, University of Washington; MS, PhD, University of Michigan.

**BRAD L. JOHNSON** (1997) Professor. BS, MS, University of Colorado-Colorado Springs; PhD, University of Colorado-Boulder.

**KATHLEEN L. KITTO** (1988) Professor. Vice Provost for Research and Dean of Graduate School. BS, MSME, Montana College of Mineral Science and Technology.

**NICOLE M. LARSON** (2005) Associate Professor. BSME, Bradley University; MSME, University of Washington.

**JANELLE LEGER** (2009) Associate Professor. BS, University of California-Davis; PhD, University of California at Santa Cruz.

**STEPHEN McDOWALL** (2001) Professor. BS, MS, University of Canterbury, New Zealand; PhD, University of Washington.

**AMANDA MURPHY** (2010) Assistant Professor. BS, BA, Western Washington University; PhD, University of California-Berkeley.

**DAVID L. PATRICK** (1996) Professor. BS, University of California-Davis; PhD, University of Utah.

**ELIZABETH A. RAYMOND** (2006) Senior Instructor. BA, Whitman College; PhD, University of Oregon.

**DAVID RIDER** (2010) Assistant Professor. BSc, Simon Fraser University; PhD, University of

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Toronto.

**ANDREAS RIEMANN** (2006) Associate Professor. BS, MS, University Halle, Germany; PhD, Free University Berlin, Germany.

**TAKELE SEDA** (2002) Associate Professor. BS, Asmara University (Eritrea); MS, Addis Ababa University, Ethiopia; PhD, University of Witwatersand, Johannesburg, South Africa.

**PETER SHERWOOD** (2012) Distinguished Visiting Professor of Materials Science and Chemistry. PhD, Cambridge University. Affiliate Professor of Chemistry, University of Washington. Emeritus Dean and Emeritus Regents Professor of Physics, Oklahoma State University. Emeritus University Distinguished Professor of Chemistry, Kansas State University.

**SERGEY SMIRNOV** (2008) Assistant Professor. BS, MS, Moscow Institute of Physics and Technology; PhD, State University of New York at Stony Brook.

**P. CLINT SPIEGEL** (2007) Associate Professor, BS, Oregon State University; PhD, University of Washington.

**JAMES R. VYVYAN** (1997) Professor. BS, University of Wisconsin-Eau Claire; PhD, University of Minnesota.

## Research Associates

**BRIAN RUSK** (2011) BS, James Madison University; PhD, University of Oregon.

## Other Departmental Information

### Facilities and Resources

The Materials Science minor at Western Washington University is administered by the Advanced Materials Science and Engineering Center (AMSEC), a collaborative, interdisciplinary program within the College of Science and Engineering. In addition to its educational programs, AMSEC provides leadership in academic research and scholarship while maintaining strong relationships with regional companies. The Center includes faculty and students from across the College involved in researching a wide range of advanced materials, such as polymers and composites, geological and magnetic materials, organic and inorganic synthesis, materials for clean energy, theory and modeling, and nanomaterials. The Center also operates a shared, open access Materials Characterization Laboratory housing state-of-the-art x-ray diffraction, thin film preparation, mass spectrometry, microscopy, and thermal analysis equipment.

## Minor

### Materials Science Minor

Department of Materials Science, College of Science and Engineering

#### 23-36 credits

#### Introduction

Materials science addresses the challenges of creating and using new materials for the 21st century. Advanced materials play a critical role in the modern economy where they are used in a wide range of applications, from high technology to everyday products. They include metals and alloys, ceramics, semiconductors, polymers and composites. Materials science is the study of these materials, their properties and uses.

#### Why Consider a Materials Science Minor?

Professionals trained in materials science are sought after by Northwest companies ranging from aerospace to biotechnology, microelectronics, nanotechnology, clean energy, defense, and transportation. The materials science and engineering program at WWU teaches students a balanced understanding of fundamental concepts and principles with practical applications and useful skills.

#### Contact Information

##### AMSEC Director

Mark Bussell  
Chemistry Building 445  
360-650-3145  
Mark.Bussell@wwu.edu

#### Sample Careers

Visit <http://www.wvu.edu/amsec/advising.shtml>

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Visit <http://www.wvu.edu/amsec/students.shtml>

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- One course from:
  - ENGR 170 - Introduction to Materials Science and Engineering
  - MSCI 201 - Introduction to Materials Science and Engineering
- Two or three courses based on advising:
  - MSCI 321 - Introduction to Materials Science: Materials Chemistry
  - MSCI 322 - Introduction to Materials Science: Polymers & Composites
  - MSCI 323 - Introduction to Materials Science: Semiconductor Materials & Devices
- MSCI 330 - Introduction to Materials Science II
- MSCI 410 - Characterization of Materials
- MSCI 491 - Independent Research or Internship in Materials Science I
- MSCI 492 - Independent Research or Internship in Materials Science II
- One advanced elective with prior departmental approval.

## Materials Science Courses

### MSCI 101 - The Materials Revolution

An introductory course designed to facilitate a basic understanding of the materials science fundamentals behind the development of today's most important and innovative materials. Topics include: nanomaterials, smart materials, advanced composite materials, and semiconductors. Other important basics such as building materials from atoms, structures, synthesis, materials failures, and sustainability will also be covered.

**Prerequisites & Notes:** Freshman status or permission - FYE

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SCI

### MSCI 110 - Introduction to Renewable Energy for Scientists and Engineers

The effort to find safe and clean sources of renewable energy is one of the greatest scientific challenges facing the next generation. In this course students will explore renewable energy technology and learn about the science underlying biofuels, wind, and wave power, nuclear power and solar cells. Students will create biodiesel fuel in the laboratory and construct their own solar cell devices. Field trips to local energy companies will

provide real world examples of energy infrastructure. Students will work in small groups to research a focus area of renewable energy, and at the end of the course give group presentations to communicate their findings. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### MSCI 201 - Introduction to Materials Science and Engineering

The relationship between the properties, structure and processes of engineering materials is discussed. Emphasis on the fundamentals of selecting materials based on engineering design criteria. Also offered as ENGR 170.

**Prerequisites & Notes:** CHEM 121 or CHEM 125; MATH 124 and PHYS 161 or concurrent; or MATH 157 and PHYS 114 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

### MSCI 321 - Introduction to Materials Science: Materials Chemistry

This course is part of an interdisciplinary sequence designed to cover the fundamental concepts of materials science. Basic concepts behind the chemistry of organic and inorganic compounds, chemical bonding and structure, electron

## MATERIALS SCIENCE

delocalization, properties of common functional groups and ligands, and structure-property relationships will be covered in this overview course.

**Prerequisites & Notes:** CHEM 123 or CHEM 125; MSCI 201 or ENGR 170; PHYS 163 or concurrent; or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

### **MSCI 322 - Introduction to Materials Science: Polymers & Composites**

This course is part of an interdisciplinary sequence designed to cover the fundamental concepts of materials science. Common synthetic routes for polymerization, common polymers and polymer classifications, mechanical properties of polymers and the relationship to polymer processing, classes of composite materials based on the composition and geometry of dispersed and continuous phases, properties and applications will be covered in this overview course.

**Prerequisites & Notes:** CHEM 123 or CHEM 125; MSCI 201 or ENGR 170; PHYS 163 or concurrent; or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

### **MSCI 323 - Introduction to Materials Science: Semiconductor Materials & Devices**

This course is part of an interdisciplinary sequence designed to cover the fundamental concepts of materials science. Structure and processing of inorganic semiconductors, electronic and optical properties, doping effects and junctions between n- and p-type materials, photovoltaic devices, diodes, and transistors will be covered in this overview course.

**Prerequisites & Notes:** CHEM 123 or CHEM 125; MSCI 201 or ENGR 170; PHYS 163 or concurrent; or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

### **MSCI 330 - Introduction to Materials Science II**

Part of a multi-course interdisciplinary sequence designed to cover the fundamental concepts of materials science. Electrical, magnetic and optical properties and structures of materials are emphasized in this second overview course.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138; PHYS 163; Depending upon advising, two or three courses from: MSCI 321, MSCI 322, and MSCI 323; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **MSCI 410 - Characterization of Materials**

The third course in a three course interdisciplinary sequence designed to cover the fundamental concepts of materials science. Theory and operating principals of external and internal characterization of materials such as: electron microscopy, x-ray chemical microanalysis, optical microscopy, thermal, magnetic and structural analysis, polymer processing and analysis, thin film preparation and characterization, and x-ray diffraction. Laboratory experience and projects are emphasized.

**Prerequisites & Notes:** MSCI 330 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **MSCI 491 - Independent Research or Internship in Materials Science I**

Undergraduate research in materials science or an undergraduate internship in materials science in industry under supervision. S/U grading.

**Prerequisites & Notes:** MSCI 330 or instructor permission.

**Credits:** 3

**Grade Mode:** S/U

### **MSCI 492 - Independent Research or Internship in Materials Science II**

Undergraduate research in materials science or an undergraduate internship in materials science in industry under supervision. S/U grading.

**Prerequisites & Notes:** MSCI 330 or instructor permission.

**Credits:** 3

**Grade Mode:** S/U

# Mathematics

## Introduction

The Department of Mathematics offers majors and minors in mathematics, applied mathematics and mathematics education. Combined majors are offered in mathematics and computer science, biology and mathematics, chemistry and mathematics, economics and mathematics, and physics and mathematics. The department also offers a Master of Science degree.

By taking a significant number of graduate math courses as an undergraduate, it is possible to earn both a Bachelor of Science and a Master of Science degree in mathematics within a total of five years of study. Detailed requirements for this option are available from the Department of Mathematics.

The majors mentioned above will serve as components of a liberal education, but each one also prepares the recipient for a career in business, industry, government or education. Further information about career opportunities is available in the department office or website. Persons planning a career in almost any field will find their opportunities for interesting and challenging positions enhanced by the study of mathematics. A person who develops the ability to formulate and solve quantitative problems will be able to attack many of the complex problems of the world.

## Mathematics

Mathematics has developed from attempts to find simple general laws governing the behavior of the phenomena we observe around us; phenomena as diverse as the motion of the planets, the evolution of biological systems and the movement of traffic.

These attempts have been remarkably successful, although many problems remain to be solved. The concepts involved are profound and exciting; their development and use require imagination and careful deductive reasoning.

Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics is a diverse discipline that deals with data, measurements, and observations from science, with inference, deduction, and proof; and with mathematical models of natural phenomena, human behavior, and social systems.

As a practical matter, mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, mathematics relies on logic rather than on

observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth.

The special role of mathematics in education is a consequence of its universal applicability. The results of mathematics — theorems and theories — are both significant and useful; the best results are also elegant and deep. Through its theorems, mathematics offers science both a foundation of truth and a standard of certainty.

In addition to theorems and theories, mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power — a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives.

Mathematics empowers us to understand better the information-laden world in which we live.

— Excerpts from *Everyone Counts: A Report to the Nation on the Future of Mathematics Education*

© 1989, National Academy of Sciences

The purpose of the mathematics and applied mathematics majors is to acquaint the student with mathematical concepts; to provide the student with the tools needed to apply the concepts in other fields; and to continue to learn and develop new ideas.

A student primarily interested in the application of mathematical ideas in another field should elect the major in applied mathematics or one of the combined majors. A student who is interested in some branch of mathematics itself, or who is considering graduate study in mathematics, should choose the mathematics major. A student considering a career as an actuary should consult the department website for specific course suggestions. A student who is unsure about future plans should probably consult the department website for a mathematics major and adviser.

## Faculty

**TJALLING J. YPMA** (1987) Chair and Professor. BSc, University of Cape Town; MSc, DPhil, Oxford University.

**EDOH Y. AMIRAN** (1989) Associate Professor. BA, University of Chicago; PhD, Massachusetts Institute of Technology.

**AMY D. ANDERSON** (2007) Associate Professor. BS, Central Washington University; MA, University

## MATHEMATICS

of Oregon; PhD, University of Washington.

**ARPAD BENYI** (2005) Professor. BS, MS, West University of Timisoara, Romania; MA, PhD, University of Kansas-Lawrence.

**ANDREW S. BERGET** (2014) Assistant Professor. BS, PhD, University of Minnesota.

**DONALD R. CHALICE** (1967) Associate Professor. BA, University of Wisconsin; MA, PhD, Northwestern University.

**VICTOR CHAN** (2001) Associate Professor. BA, Whitman College; MS, State University of New York-Stony Brook; MS, PhD, Iowa State University.

**JESSICA S. COHEN** (2010) Associate Professor. BS, Western Oregon University; MS, PhD, Oregon State University

**BRANKO CURGUS** (1988) Professor. BS, MS, PhD, University of Sarajevo.

**RICHARD J. GARDNER** (1991) Professor. BSc, PhD, University College, London; DSc, University of London.

**TILMANN E.C. GLIMM** (2005) Professor. First Degree, Technische Universitat, Berlin; MS, PhD, Emory University.

**DAVID A. HARTENSTINE** (2004) Associate Professor. BA, University of Pennsylvania; PhD, Temple University, Philadelphia.

**MILLIE J. JOHNSON** (1991) Associate Professor. BS, University of Minnesota; MEd, University of Washington.

**STEPHEN R. MCDOWALL** (2001) Professor. BS, MS, University of Canterbury, New Zealand; PhD, University of Washington.

**KIMBERLY A. MARKWORTH** (2010) Associate Professor. BA, Dartmouth; M.Ed. Harvard; PhD, University of North Carolina, Chapel Hill.

**KIMIHIRO NOGUCHI** (2014) Assistant Professor, BS, MS, University of Waterloo, Canada; PhD, University of California-Davis.

**ADAM NYMAN** (2008) Associate Professor. BS, Massachusetts Institute of Technology; PhD, University of Washington.

**THOMAS T. READ** (1967) Professor. BA, Oberlin College; MA, PhD, Yale University.

**AMITES SARKAR** (2007) Associate Professor. BA, PhD, Cambridge University.

**YUN-QIU SHEN** (1988) Professor. BS, University of Science and Technology of China; MS, PhD, Michigan State University.

**STEPHANIE A. TRENEER** (2008) Associate Professor. BA, Whitman College; PhD, University of Illinois at Urbana-Champaign.

**RACHAEL M. WELDER** (2015) Assistant Professor. BS, University of Mary; MS, University of North Dakota; PhD, Montana State University.

**JIANYING ZHANG** (2006) Associate Professor. BS, MS, Tsinghua University; PhD, University of California-Santa Barbara.

### Declaration Process

Students who intend to complete a major in the department are urged to declare the major

formally at an early point in their Western career so that a program of study can be planned in collaboration with a departmental advisor. This does not in any way decrease the opportunity to change plans, but does ensure constructing an efficient program which is not subject to future catalog revisions.

### Departmental Honors

The mathematics department offers two means of recognition for outstanding students. One, Graduation with Merit in Mathematics, is an award which recognizes outstanding scholastic achievement in courses required for the major. The second, Graduation with Distinction in Mathematics, is a program which rewards exceptional achievement in mathematics as evidenced by meeting all the requirements for Graduation with Merit and completing certain additional requirements detailed below. While Graduation with Merit is automatically conferred on all students who qualify, students must apply to the Chair of the Department of Mathematics to participate in the program for Graduation with Distinction in Mathematics.

Students interested in these programs should also inquire into the possibility of earning both a Bachelor of Science and a Master of Science degree in mathematics within five years of study. Detailed requirements for this option are available from the Department of Mathematics.

### Graduation with Merit

To graduate with Merit in mathematics, a student must complete one of the majors or combined majors offered by mathematics alone or by mathematics in cooperation with another department.

The student's program must include at least 32 quarter hours of mathematics or math-computer science courses taken at Western, including MATH 225, 304 and 312 and at least 23 approved credits at the 400 level or above. The cumulative GPA for mathematics and math-computer science classes taken at Western must be at least 3.6.

### Graduation with Distinction

To graduate with Distinction in mathematics, a student must meet all the requirements for graduation with Merit in mathematics.

Furthermore, the student must successfully complete:

- A comprehensive examination covering MATH 124, 125, 224, 225, 226, 204, 331

- An approved senior project

The comprehensive examination should be taken no later than the junior year. This examination may be retaken if necessary, but must be passed no later than fall of the senior year and before beginning the senior project.

The senior project is subject to approval of the Undergraduate Committee and is undertaken under the direction of a faculty member. It includes some independent work, the preparation of a report and a colloquium presentation. The senior project constitutes a course at the 400 level and is letter graded with 4 credits applicable towards the major.

Students interested in graduating with Distinction in mathematics should declare their interest to the Chair of the Department of Mathematics at an early point in their career at Western in order to receive appropriate advice and guidance.

### Other Departmental Information

#### Mathematics Education

The Bachelor of Arts in Education major may be completed with either of two concentrations; one prepares the graduate for teaching mathematics on the secondary level, the other concentrates on the elementary level. Those who intend to pursue one of these concentrations must complete certain courses in calculus, linear algebra, discrete mathematics, statistics, number theory, geometry, the history of mathematics, and computer science. Successful completion of these courses provides a good part of the training necessary for technical expertise in the classroom.

The elementary concentration emphasizes breadth in mathematics. Breadth of experience is important so that the teacher can expose elementary students to a wide variety of mathematical topics. The specialist in mathematics on the elementary level must be particularly skilled at transforming the material mastered in college to a form suitable for the level in question.

Secondary majors learn the methods of teaching mathematics in MATH 483; elementary majors learn such methods in MATH 381, 382, 383 and 491.

Students who wish to teach mathematics on the secondary level also can gain certification in mathematics by completing any one of the Bachelor of Science majors in mathematics, applied mathematics or mathematics-computer science. In addition to the requirements for the major, they are expected to complete these

courses: MATH 302, MATH 360, MATH 419 and MATH 483.

Recommendation for teaching endorsement requires the completion of the major with a minimum grade point average of 2.50 in the courses required for the major. The state of Washington requires a minimum grade of C (2.0) or better for all courses used to meet major certification or endorsement requirements. To gain the Initial Teaching Certificate, students must also complete a program of studies in professional education, including student teaching. Early in their careers at Western students should seek formal advisement on the appropriate program in education. It is essential that the interested reader consult the Elementary Education and Secondary Education sections of this catalog for further information.

#### Academic Placement

Initial placement in most mathematics courses at Western is on the basis of the results of an appropriate placement test, except for some students who have successfully completed at least one quarter of calculus or precalculus in college. Full information on which test to take and how to take it is available from the admissions office or the mathematics department. Mathematics placement tests are administered throughout the state of Washington each year, and both freshmen and transfer students who are residents in Washington are advised to take the appropriate examination prior to arrival on campus.

Students who have completed at least one year of high school calculus or at least one quarter of college calculus should consult a departmental advisor before registering.

Except by permission of the chair of the Department of Mathematics, a student may not receive credit for any of MATH 101, 106, 107, 112, 114, 115, 118, 156 or 157 if that course is completed after completion of any higher numbered course in this list or after completion of a course in calculus for which college credit has been received.

#### Advice to Entering Students

The Bachelor of Science degrees in mathematics, applied mathematics and mathematics-computer science are based on the following core:

- MATH 124, MATH 125, MATH 224, MATH 226 (calculus)
- MATH 204, MATH 304 (linear algebra)
- Either MATH 302 or MATH 309
- MATH 312 (proofs in elementary analysis)

## MATHEMATICS

- One of CSCI 140, CSCI 141, MATH 307; (M/CS majors should complete CSCI 141)

The Bachelor of Arts-Secondary Education degree has the same core except for

- MATH 304, MATH 312 and requires both MATH 302 and MATH 309

These courses, except for MATH 304 and MATH 312, represent the minimum that a student planning one of these majors should complete during the first two years. A well-prepared student will be able to build a stronger program, possibly including some graduate-level courses in the senior year, by completing MATH 225 some 300-level work chosen under advisement in addition to the list above. In particular, Math 331 (differential equations) will be suitable for many students.

Transfer students, especially those intending to enter Western with an Associate of Arts degree, should normally complete as much as possible of the core program above prior to entering Western, and certainly including the entire calculus sequence and linear algebra. Students should be aware that 200-level differential equations courses may not transfer as equivalent to MATH 331, and that certain third quarter calculus courses also may not transfer as equivalent to either MATH 224 or 226.

The Bachelor of Arts major in mathematics provides exposure to a wide range of courses but, relative to the Bachelor of Science major, has fewer requirements for courses in analysis and other upper-division courses. A Bachelor of Science major in mathematics is generally more appropriate than a Bachelor of Arts major in mathematics for students intending to pursue graduate studies in any mathematically intensive discipline.

## Bachelor of Arts

### Economics/Mathematics, BA (see Economics Department)

Economics/Mathematics, BA (see Economics Department)

### Mathematics, BA

Department of Mathematics, College of Science and Engineering

### 70 credits in mathematics plus 18-21 credits in supporting courses

#### Introduction

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and

Instructors in many courses require that students use a graphing calculator. Students should contact the department for recommendations before purchasing a calculator.

#### Accelerated BS-MS Program

By taking a significant number of graduate math courses as an undergraduate, it is possible to earn both a Bachelor of Science and a Master of Science degree in mathematics within five years of study. Detailed requirements for this option are available from the Department of Mathematics.

#### Enrollment Preference for Majors

The department will give enrollment preference for certain high-demand courses to its majors.

#### Information

Those interested in the study of mathematics are welcome to write, phone or visit the Chair of the Department of Mathematics, Western Washington University, Bellingham WA 98225, phone 360-650-3785.

#### Graduate Study

For a concentration leading to the Master of Science degree, see the Graduate School section of this catalog.

By taking a significant number of graduate math courses as an undergraduate, it is possible to earn both a Bachelor of Science and a Master of Science degree in mathematics within five years of study. Detailed requirements for this option are available from the Department of Mathematics.



observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

**Why Consider a Mathematics Major?**

"The special role of Mathematics in education is a consequence of its universal applicability. The results of Mathematics-theorems and theories-are both significant and useful; the best results are also elegant and deep. Through its theorems, Mathematics offers science both a foundation of truth and a standard of certainty.

In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power-a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live. " From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

Compared to the BS Mathematics major, the BA has fewer advanced requirements and provides greater flexibility in the choice of courses to take.

Contact Information	
<b>Department Chair</b> Tjalling Ypma Bond Hall 202A 360-650-3785 Tjalling.Ypma@wwu.edu	<b>Undergraduate Advisor</b> Mathematics Department Office Bond Hall 202 360-650-3785 Math.Department@wwu.edu

**Sample Careers**  
Actuary | Research Analyst | Statistician | Biostatistician | Math Teacher | Demographer | Database Administrator | Information Scientist | Modeler

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II

## MATHEMATICS

OR

MATH 134 - Calculus I Honors

MATH 135 - Calculus II Honors

OR

MATH 138 - Accelerated Calculus

Choose either:

MATH 204 - Elementary Linear Algebra

MATH 331 - Ordinary Differential Equations

OR

MATH 203 - Linear Algebra and Differential Equations I

MATH 303 - Linear Algebra and Differential Equations II

MATH 224 - Multivariable Calculus and Geometry I

MATH 226 - Limits and Infinite Series

One course from:

MATH 341 - Probability and Statistical Inference

MATH 441 - Probability

One course from:

MATH 419 - Historical Perspectives of Mathematics

MATH 420 - Topics in the History and Philosophy of Mathematics

One course from:

CSCI 140 - Programming Fundamentals in C++

CSCI 141 - Computer Programming I

MATH 307 - Mathematical Computing

**NOTE:** If the supporting sequence from CSCI below is chosen, this requirement is fulfilled.

Three courses from:

MATH 302 - Introduction to Proofs Via Number Theory

MATH 304 - Linear Algebra

MATH 309 - Introduction to Proof in Discrete Mathematics

MATH 312 - Proofs in Elementary Analysis

MATH 360 - Euclidean and Non-Euclidean Geometry

Two courses from:

MATH 410 - Mathematical Modeling

M/CS 335 - Linear Optimization

M/CS 375 - Numerical Computation

M/CS 435 - Nonlinear Optimization

M/CS 475 - Numerical Analysis

Sixteen additional approved credits in mathematics or math-computer science, which includes completion of two of the following pairs:

MATH 302 - Introduction to Proofs Via Number Theory

together with one of:

MATH 405 - Algebraic Geometry

MATH 451 - Number Theory

Only one of the pairs from the above group may be used

One course from:

MATH 303 - Linear Algebra and Differential Equations II

MATH 331 - Ordinary Differential Equations

together with one of:

MATH 415 - Mathematical Biology

MATH 430 - Fourier Series and Applications to Partial Differential Equations

MATH 431 - Analysis of Partial Differential Equations

MATH 432 - Systems of Differential Equations

Only one of the pairs from the above group may be used

The following pair:

MATH 341 - Probability and Statistical Inferences

MATH 342 - Statistical Methods I

The following pair:

MATH 401 - Introduction to Abstract Algebra

MATH 402 - Introduction to Abstract Algebra

The following pair:

MATH 421 - Methods of Mathematical Analysis I

MATH 422 - Methods of Mathematical Analysis II

The following pair:

MATH 441 - Probability

MATH 442 - Mathematical Statistics

The following pair:

M/CS 335 - Linear Optimization

M/CS 435 - Nonlinear Optimization

The following pair:

M/CS 375 - Numerical Computation

M/CS 475 - Numerical Analysis

**NOTE:** Courses counted toward the major in the preceding boxes do not count toward the 16 credits but can serve as part (or all) of the pair.

□ One of the following sequences:

PHYS 161 - Physics with Calculus I

PHYS 162 - Physics with Calculus II

PHYS 163 - Physics with Calculus III

OR

CHEM 121 - General Chemistry I

CHEM 122 - General Chemistry II

CHEM 123 - General Chemistry III

OR

CHEM 125 - General Chemistry I, Honors

CHEM 126 - General Chemistry II, Honors

CHEM 225 - General Chemistry III, Honors

OR

CSCI 141 - Computer Programming I

CSCI 145 - Computer Programming and Linear Data Structures

CSCI 241 - Data Structures

CSCI 301 - Formal Languages and Functional Programming

and one of:

CSCI 305 - Analysis of Algorithms and Data Structures I

CSCI 330 - Database Systems

CSCI 345 - Object Oriented Design

CSCI 401 - Automata and Formal Language Theory

OR

ECON 206 - Introduction to Microeconomics

ECON 207 - Introduction to Macroeconomics

ECON 306 - Intermediate Microeconomics

and one of:

ECON 375 - Introduction to Econometrics

ECON 470 - Economic Fluctuations and Forecasting

ECON 475 - Econometrics

## Bachelor of Arts in Education

### Chemistry/Mathematics — Secondary, BAE (see Chemistry Department)

Chemistry/Mathematics - Secondary, BAE (see Chemistry Department)

### Mathematics — Elementary, BAE

Department of Mathematics, College of Science and Engineering

**51 credits**

#### Introduction

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# MATHEMATICS

observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects,

Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

## Why Consider a Mathematics - Elementary Major?

Teaching Mathematics is a challenge, a responsibility, and an opportunity. Learning to teach Mathematics occurs through a variety of means: the study of a wide variety of Mathematics, pedagogical preparation within a mathematical context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in Mathematics.

There is a growing demand for elementary teachers with a strong background in Mathematics, but there is an even greater need for quality Mathematics teachers—elementary teachers who care about both students and Mathematics, elementary teachers who have a broad and deep understanding of Mathematics, and elementary teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective elementary teacher specializing in Mathematics you need to focus on expanding your personal understanding of Mathematics and capitalizing on opportunities to work with pre-college students—as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship. Are you up for it?

<b>Contact Information</b>		
<b>Department Chair</b> Tjalling Ypma Bond Hall 202A 360-650-3785 Tjalling.Ypma@wwu.edu	<b>Mathematics Department</b> Bond Hall 202 360-650-3785 mathdept@wwu.edu	<b>Math Education Advisor</b> Jessica Cohen Bond Hall 180 360-650-3830 Jessica.Cohen@wwu.edu <b>Math Education Advisor</b> Kimberly Markworth Bond Hall 242 360-650-6284 Kimberly.Markworth@wwu.edu
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wwu.edu/eled/elementary-education">https://wce.wwu.edu/eled/elementary-education</a>	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948
<b>Sample Careers</b> Elementary Teacher		
<b>Major/Career Resources</b> <a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration):

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned in collaboration with a departmental advisor.

This major satisfies the academic major requirements for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary

education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements. For more information on the Math Department go to Declaration of Major.

### Grade Requirements

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Requirements

- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors and
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- MATH 204 - Elementary Linear Algebra
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 341 - Probability and Statistical Inference
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 419 - Historical Perspectives of Mathematics
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics

### Additional Major Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching

## MATHEMATICS

- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Mathematics — Secondary, BAE

Department of Mathematics, College of Science and Engineering

### 70 credits

#### Introduction

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education.

## Why Consider a Mathematics - Secondary Major?

Teaching Mathematics is a challenge, a responsibility, and an opportunity. Learning to teach Mathematics occurs through a variety of means: the study of a wide variety of Mathematics, pedagogical preparation within a mathematical context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in Mathematics.

Everyone aspiring to be a Mathematics teacher is aware of the demand for qualified teachers at the secondary level, but there is an even greater need for quality Mathematics teachers—teachers who care about both students and Mathematics, teachers who have a broad and deep understanding of Mathematics, and teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective teacher you need to focus on expanding your personal understanding of Mathematics and capitalizing on opportunities to work with pre-college students as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship. Are you up for it?

Contact Information		
<b>Department Chair</b> Tjalling Ypma Bond Hall 202A 360-650-3785 Tjalling.Ypma@wwu.edu <b>Secondary Education Website</b> wce.wwu.edu/sec/secondary-education	<b>Mathematics Department</b> Bond Hall 202 360-650-3785 mathdept@wwu.edu  <b>Secondary Education Professional Program Information Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3347 Janna.Cecka@wwu.edu	<b>Math Education Advisor</b> Jessica Cohen Bond Hall 400 360-650-3830  <b>Secondary Education Program Coordinator</b> Christina Carlson Miller Hall 401A 360-650-3327 Christina.Carlson@wwu.edu

Sample Careers
Secondary Education Teacher
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

## How to Declare (Admission and Declaration Process):

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor. For more information on the Mathematics Department go to Declaration of Major.

This major must be accompanied by the professional preparation program in secondary education and leads to an endorsement in secondary mathematics. Half of the required mathematics coursework must be completed to be eligible for admission to the Woodring College of Education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

## Requirements

- ☐ Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors and
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus

## MATHEMATICS

- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential Equationsor
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 226 - Limits and Infinite Series
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 341 - Probability and Statistical Inference
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- At least four courses selected from the following:
  - MATH 304 - Linear Algebra
  - MATH 312 - Proofs in Elementary Analysis
  - MATH 401 - Introduction to Abstract Algebra
  - MATH 402 - Introduction to Abstract Algebra
  - MATH 410 - Mathematical Modeling
  - MATH 441 - Probability
  - M/CS 375 - Numerical Computation or by advisement from secondary mathematics educators.

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Physics/Mathematics — Secondary, BAE (see Physics Department)

Physics/Mathematics - Secondary, BAE (see Physics Department)

## Bachelor of Science

### Applied Mathematics, BS

Department of Mathematics, College of Science and Engineering

**70 credits in mathematics plus 18-21 credits in supporting courses**



**Introduction**

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, Mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

**Why Consider an Applied Mathematics Major?**

The special role of Mathematics in education is a consequence of its universal applicability. The results of Mathematics-theorems and theories-are both significant and useful; the best results are also elegant and deep. Through its theorems, Mathematics offers science both a foundation of truth and a standard of certainty.

In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power—a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

Compared to the BA and BS Mathematics majors, this major requires that the student take a carefully selected sequence of courses focusing on a particular area of application of mathematics.

Contact Information	
<b>Department Chair</b> Tjalling Ypma Bond Hall 202A 360-650-3785 Tjalling.Ypma@wwu.edu	<b>Undergraduate Advisor</b> See Department Office Bond Hall 202 360-650-3785 Math.Department@wwu.edu
Sample Careers	
Actuary   Research Analyst   Statistician   Biostatistician   Math Teacher   Demographer   Database Administrator   Information Scientist	
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

**How to Declare (Admission and Declaration Process):**

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# MATHEMATICS

## Requirements

- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential Equations
  - or
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 226 - Limits and Infinite Series
- MATH 304 - Linear Algebra
- MATH 312 - Proofs in Elementary Analysis
- M/CS 375 - Numerical Computation
- M/CS 475 - Numerical Analysis
- One course from:
  - MATH 302 - Introduction to Proofs Via Number Theory
  - MATH 309 - Introduction to Proof in Discrete Mathematics
- Choose either:
  - MATH 341 - Probability and Statistical Inference
  - MATH 342 - Statistical Methods I
  - or
  - MATH 441 - Probability
  - MATH 442 - Mathematical Statistics
- One course from:
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
  - MATH 307 - Mathematical Computing

**NOTE:** If the supporting sequence from CSCI below is chosen, this requirement is fulfilled.
- One of the following concentrations:
  - Engineering Concentration:
    - MATH 225 - Multivariable Calculus and Geometry II
    - MATH 438 - Introduction to Complex Variables
  - One course from:
    - MATH 430 - Fourier Series and Applications to Partial Differential Equations
    - MATH 432 - Systems of Differential Equations
  - Operations Research Concentration:
    - M/CS 335 - Linear Optimization
    - M/CS 435 - Nonlinear Optimization
    - MATH 410 - Mathematical Modeling
- No fewer than 3 additional credits from:
  - 400-level MATH courses
  - 400-level M/CS courses
  - CSCI 405 - Analysis of Algorithms and Data Structures II
  - CSCI 480 - Computer Graphics
- One of the following sequences:
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
  - or
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III

or

CHEM 125 - General Chemistry I, Honors  
 CHEM 126 - General Chemistry II, Honors  
 CHEM 225 - General Chemistry III, Honors

or

CSCI 141 - Computer Programming I  
 CSCI 145 - Computer Programming and Linear Data Structures  
 CSCI 241 - Data Structures  
 CSCI 301 - Formal Languages and Functional Programming

and one of:

CSCI 305 - Analysis of Algorithms and Data Structures I  
 CSCI 330 - Database Systems  
 CSCI 345 - Object Oriented Design  
 CSCI 401 - Automata and Formal Language Theory

or

ECON 206 - Introduction to Microeconomics  
 ECON 207 - Introduction to Macroeconomics  
 ECON 306 - Intermediate Microeconomics

and one of:

ECON 375 - Introduction to Econometrics  
 ECON 470 - Economic Fluctuations and Forecasting  
 ECON 475 - Econometrics

## **Biology/Mathematics, BS (see Biology Department)**

Biology/Mathematics (see Biology Department)

## **Mathematics, BS**

Department of Mathematics, College of Science and Engineering

### **70 credits in mathematics plus 18-21 credits in supporting courses**

#### **Introduction**

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

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#### **Why Consider a Mathematics Major?**

"The special role of Mathematics in education is a consequence of its universal applicability. The results of Mathematics-theorems and theories-are both significant and useful; the best results are also elegant and deep. Through its theorems, Mathematics offers science both a foundation of truth and a standard of certainty.

In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power-a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live. " From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

# MATHEMATICS

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

## Contact Information

### Department Chair

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

### Mathematics Department

Bond Hall 202  
360-650-3785  
Math.Department@wwu.edu

## Sample Careers

Actuary | Research Analyst | Statistician | Biostatistician | Math Teacher | Demographer | Database Administrator | Information Scientist | Modeler

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- MATH 204 - Elementary Linear Algebra
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series
- MATH 304 - Linear Algebra
- MATH 312 - Proofs in Elementary Analysis
- One course from:
  - MATH 302 - Introduction to Proofs Via Number Theory
  - MATH 309 - Introduction to Proof in Discrete Mathematics
- No fewer than 31 additional approved credits in mathematics or math-computer science, including at least two of the following pairs:
  - MATH 302 - Introduction to Proofs Via Number Theory together with one of:
    - MATH 405 - Algebraic Geometry
    - MATH 451 - Number Theory
  - Only one of the pairs from the above group may be used
  - One course from:
    - MATH 303 - Linear Algebra and Differential Equations II
    - MATH 331 - Ordinary Differential Equations
  - together with one of:
    - MATH 415 - Mathematical Biology

MATH 430 - Fourier Series and Applications to Partial Differential Equations  
 MATH 431 - Analysis of Partial Differential Equations  
 MATH 432 - Systems of Differential Equations

Only one of the pairs from the above group may be used

NOTE: The pair MATH 203 and MATH 303 may be substituted for MATH 204 and MATH 331.

The following pair:

MATH 341 - Probability and Statistical Inference  
 MATH 342 - Statistical Methods I

The following pair:

MATH 401 - Introduction to Abstract Algebra  
 MATH 402 - Introduction to Abstract Algebra

The following pair:

MATH 421 - Methods of Mathematical Analysis I  
 MATH 422 - Methods of Mathematical Analysis II

The following pair:

MATH 441 - Probability  
 MATH 442 - Mathematical Statistics

The following pair:

M/CS 335 - Linear Optimization  
 M/CS 435 - Nonlinear Optimization

The following pair:

M/CS 375 - Numerical Computation  
 M/CS 475 - Numerical Analysis

Supporting Courses:

At least 19 credits from 400-level courses in mathematics or math-computer science except MATH 483, and including at most one of MATH 419 or MATH 420.

One of:

CSCI 140 - Programming Fundamentals in C++  
 CSCI 141 - Computer Programming I  
 MATH 307 - Mathematical Computing

**NOTE:** If the supporting sequence from CSCI below is chosen, this requirement is fulfilled.

One of the following sequences:

PHYS 161 - Physics with Calculus I  
 PHYS 162 - Physics with Calculus II  
 PHYS 163 - Physics with Calculus III

or

CHEM 121 - General Chemistry I  
 CHEM 122 - General Chemistry II  
 CHEM 123 - General Chemistry III

or

CHEM 125 - General Chemistry I, Honors  
 CHEM 126 - General Chemistry II, Honors  
 CHEM 225 - General Chemistry III, Honors

or

CSCI 141 - Computer Programming I  
 CSCI 145 - Computer Programming and Linear Data Structures  
 CSCI 241 - Data Structures  
 CSCI 301 - Formal Languages and Functional Programming

and one of:

CSCI 305 - Analysis of Algorithms and Data Structures I  
 CSCI 330 - Database Systems  
 CSCI 345 - Object Oriented Design  
 CSCI 401 - Automata and Formal Language Theory

or

ECON 206 - Introduction to Microeconomics  
 ECON 207 - Introduction to Macroeconomics  
 ECON 306 - Intermediate Microeconomics

and one of

ECON 375 - Introduction to Econometrics

# MATHEMATICS

ECON 470 - Economic Fluctuations and Forecasting  
ECON 475 - Econometrics

Language competency in French, German or Russian is strongly recommended for those students who may go to graduate school.

## Mathematics/Computer Science, BS

Combined major offered by the Department of Mathematics, College of Science and Engineering and the Department of Computer Science, College of Science and Engineering.

**91 credits**

### Introduction

Computer Science at Western is organized around the study of design and analysis techniques used to write software or programs in various application areas, along with details about the internal workings of computers (known as computer architecture and operating systems).

"As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences

### Why Consider a Mathematics/Computer Science Major?

The Mathematics/Computer Science BS Program provides excellent preparation for graduate study or for careers in the technical, scientific and mathematical application of computers. Graduates are able to apply their knowledge and expertise in the development of computer-based solutions of complicated mathematical problems, including environmental and ecological modeling, scientific and engineering calculations, and statistical analysis.

#### Contact Information

##### Mathematics Chair and Undergraduate Advisor

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

##### Computer Science Undergraduate Advisor

Mary Hall  
Communications Facility 459  
360-650-2300  
Mary.Hall@wwu.edu

#### Sample Careers

Research Analyst | Systems Analyst | Technical Writer | Applied Science Technologist | Information Scientist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with departmental advisors. Contact the Mathematics Department when you are ready to declare this major.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CSCI 141 - Computer Programming I

- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 301 - Formal Languages and Functional Programming
- CSCI 305 - Analysis of Algorithms and Data Structures I
- CSCI 345 - Object Oriented Design
- CSCI 405 - Analysis of Algorithms and Data Structures II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential Equations
  - or
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 226 - Limits and Infinite Series
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 312 - Proofs in Elementary Analysis
- One course from:
  - MATH 430 - Fourier Series and Applications to Partial Differential Equations
  - MATH 432 - Systems of Differential Equations
- One course from:
  - MATH 341 - Probability and Statistical Inference
  - MATH 441 - Probability
- One course from:
  - MATH 304 - Linear Algebra
  - MATH 401 - Introduction to Abstract Algebra
- Three courses from:
  - M/CS 335 - Linear Optimization
  - M/CS 375 - Numerical Computation
  - M/CS 435 - Nonlinear Optimization
  - M/CS 475 - Numerical Analysis
- 3 additional upper-division credits in mathematics or computer science as advised

## Statistics, BS

Department of Mathematics, College of Science and Engineering

### 87-95 credits

#### Introduction

Today's era has witnessed an explosive growth in the amount of data collected, and there has been a realization that these massive data sets ("big data") are reservoirs of valuable information that can be used not only for research purposes but also for direct applications and for sound decision-making. The extraction of the useful parts from big data and the analysis and interpretation of its contents require skills and knowledge in certain areas of the mathematical and computer sciences, specifically in machine learning, data mining - and statistics.

Apart from being a vital component in exploiting big data, statistical expertise is also essential in virtually all scientific organizations, large business enterprises and government agencies. The ability to analyze and make sense of data, big or small, by means of statistical techniques is critical in ensuring that the conclusions reached and the decisions made are based on valid empirical evidence.

# MATHEMATICS

Western's B.S. degree in Statistics is organized around a core course of study in probability and statistics that provides students with a background in the fundamentals of statistical thought and the application of the most common types of statistical analyses. In addition, our elective classes offer our students the opportunity to have at their disposal a diverse toolkit of analysis techniques and modeling choices that can be used to make sense of information coming from a breadth of different data types.

## Contact Information

### Department Chair

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

### Mathematics Department

Bond Hall 202  
360-650-3785  
Math.Department@wwu.edu

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students who intend to complete a major in Statistics are urged to declare the major formally at an early point in their Western career, so that a program of study can be planned carefully in collaboration with a departmental advisor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Mathematic Requirements (31 credits)

- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - or
  - MATH 134 - Calculus I Honors
- Choose either:
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 135 - Calculus II Honors
- MATH 204 - Elementary Linear Algebra
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 226 - Limits and Infinite Series
- MATH 304 - Linear Algebra
- Choose either:
  - MATH 302 - Introduction to Proofs Via Number Theory
  - or
  - MATH 309 - Introduction to Proof in Discrete Mathematics

### Core Requirements (28 credits)

- MATH 341 - Probability and Statistical Inference
- MATH 342 - Statistical Methods I
- MATH 343 - Statistical Method II
- MATH 441 - Probability
- MATH 442 - Mathematical Statistics
- MATH 445 - Computational Statistics
- Choose either:
  - CSCI 140 - Programming Fundamentals in C++
  - or
  - CSCI 141 - Computer Programming I



or  
MATH 307 - Mathematical Computing

Electives (16 credits)

- Choose four classes from the following:
- MATH 443 - Linear Statistical Models  
or MATH 543 - Linear Statistical Models
  - MATH 444 - Categorical Data Analysis
  - MATH 456 - Applied Time Series Analysis  
or MATH 556 - Applied Time Series Analysis
  - MATH 457 - Bayesian Statistics  
or MATH 557 - Bayesian Statistics
  - MATH 458 - Stochastic Processes  
or MATH 558 - Stochastic Processes

Breadth Requirement (12-20 credits, or more)

Students must either complete a minor in another department or complete one of the following sequences:

- PHYS 161, PHYS 162, PHYS163;
- CHEM 121, CHEM 122, CHEM 123;
- CHEM 125, CHEM 126, CHEM 225;
- BIO 204, BIO 205, CHEM 121, 122;
- CSCI 145, CSCI 241, CSCI 301, and one of CSCI 305, CSCI 330, CSCI 345, CSCI 401;
- ECON 206, ECON 207, ECON 306, and one of ECON 375, ECON 470, ECON 475;
- MATH 312, MATH 421, MATH 422.

## Master of Science

### Mathematics, Non-Thesis, MS

College of Science and Engineering

#### Graduate Faculty

**Amiran, Edoh Y.**, PhD, differential geometry, smooth dynamical systems.  
**Anderson, Amy D.**, PhD, statistical genetics.  
**Benyi, Arpad**, PhD, harmonic analysis, partial differential equations.  
**Berget, Andrew S.**, PhD, algebraic and geometric combinatorics.  
**Chalice, Donald R.**, PhD, Banach algebras, complex dynamics.  
**Chan, Victor**, PhD, reliability, applied statistics.  
**Curgus, Branko**, PhD, differential equations, operator theory.  
**Gardner, Richard J.**, DSc, geometry, tomography.  
**Glimm, Tilmann**, PhD, mathematical biology, geometric optics.  
**Hartenstine, David A.**, PhD, partial differential equations.  
**Johnson, Millie J.**, MEd, mathematics education.  
**McDowall, Stephen R.**, PhD, inverse problems.  
**Noguchi, Kimihiro**, PhD, nonparametric statistics.  
**Nyman, Adam**, PhD, algebraic geometry, ring theory.  
**Read, Thomas T.**, PhD, ordinary and partial differential equations.  
**Sarkar, Amites**, PhD, combinatorics, probability theory, graph theory.  
**Shen, Yun-Qiu**, PhD, nonlinear differential equations, numerical analysis.  
**Treener, Stephanie**, PhD, modular forms, number theory.  
**Ypma, Tjalling J.**, DPhil, numerical analysis.  
**Zhang, Jianying**, PhD, numerical partial differential equations.

Program Advisor: Dr. Arpad Benyi, Bond Hall 218 360-650-3710

# MATHEMATICS

## Program Description

The graduate program in mathematics is designed to meet the requirements of subsequent professional and academic work in advanced mathematics. Students are prepared to continue to further graduate studies or for professional employment in industry or in college teaching. The focus is on providing a strong and broad analytical foundation, together with sufficient flexibility to pursue particular interests and areas of application in greater depth.

## Goals

The program prepares students for:

- Continuing further graduate studies, or
- Professional employment in industry, or
- College teaching.

## Prerequisites/Qualification Examination

To be eligible for admission to the MS program in mathematics, a student should have completed at least the following courses or the equivalent with grades of B or better: Math 224, 304, 312, 331, CS 141 or Math 307, and two math courses at the 400 level.

A student who has not completed all of these courses but who can demonstrate strong promise of the ability to succeed in the program may be admitted with special stipulations. In such cases, the graduate advisor will, in consultation with the student, specify the conditions to be satisfied by the student in order to fully qualify for the program.

## Program Application/Admission Requirements

**Deadline:** Please see Graduate School deadlines.

**TA Deadline:** Preferred consideration will be given to applicants who have completed files by March 1.

**Specific Test Requirements:** Graduate Record Exam, General Test.

Contact the mathematics department, 360-650-3785, or see its website at [www.wvu.edu/math/grad/prospective.shtml](http://www.wvu.edu/math/grad/prospective.shtml) for specifics.

Graduate School Admission Link

## Program Requirements

In most cases the student's program must include at least 48 credits for the non-thesis option. At most 10 credits at the 400 level can be included in this total.

Students who have taken a significant number of graduate math courses as undergraduates at WWU may complete the graduate program with only 36 additional 500-level credits (details of this program are available from the Department of Mathematics).

The following mathematics courses or their equivalents must be completed before graduation: Math 504, 521, 522, 691 and at least one course or its equivalent from each of the following four lists

- Algebra:
  - MATH 502 - Abstract Algebra
  - MATH 503 - Topics in Abstract Algebra
  - MATH 560 - Topics in Geometry
  - MATH 564 - Graph Theory
  - MATH 566 - Topics in Combinatorics
- Analysis:
  - MATH 523 - Advanced Calculus of Several Variables
  - MATH 524 - Topics in Analysis

MATH 525 - Topology  
 MATH 527 - Real Analysis  
 MATH 528 - Functional Analysis  
 MATH 539 - Topics in Complex Analysis  
 MATH 562 - Differential Geometry

❑ Decisions:

MATH 535 - Nonlinear Optimization  
 MATH 542 - Mathematical Statistics  
 MATH 543 - Linear Statistical Models  
 MATH 545 - Topics in Probability  
 MATH 570 - Topics in Optimization

❑ Applied:

MATH 510 - Mathematical Modeling  
 MATH 511 - Advanced Modeling  
 MATH 573 - Numerical Linear Algebra  
 MATH 575 - Numerical Analysis  
 MATH 577 - Topics in Numerical Analysis

The student's program must also include at least four of the following courses: Math 503, 511, 523, 525, 527, 528, 533, 539, 545, 560, 562, 564, 566, 570, 573, 577.

A student who has not completed a senior-level course in each of the following areas will also be required to include the indicated course or courses as part of his or her program: abstract algebra (401), second course in ordinary differential equations (432), complex analysis (538), probability or statistics (541).

Graduate teaching assistants are required to take MATH 595 during their first year of study.

## Other Requirements

### Qualifying Examination for Candidacy

Each student must pass a qualifying exam before being advanced to candidacy.

### Advancement to Candidacy

Students are advanced to candidacy when they have completed at least 12 credits of approved course work with a B or better GPA, including at least one course numbered 500 or above, and have passed the qualifying exam.

### Project

Every student is required to complete a project (MATH 691). The project will involve both an oral exam on the subject of the project and a colloquium presentation to the mathematical community. The project must be completed before a student may elect the thesis option. See the departmental graduate handbook for additional details.

### Further Information and Advice

Each student is urged to prepare a program of courses in consultation with his or her advisor as soon as possible after beginning work toward a degree. Deviations from the requirements above may be approved by the department's Graduate Committee upon request of the student's advisor. For the student's protection, such approval should be obtained before any deviations are made.

A student who wishes to include a course numbered 400, 499, 500 or 599 as part of his or her graduate degree program must obtain approval in advance from the Graduate Committee. The Graduate Committee will consider approval on the basis of a detailed written description submitted by the student not later than three weeks before the date of registration. If the course is approved for graduate credit, the description will be retained in the student's file.

## Mathematics, Thesis, MS

College of Science and Engineering

# MATHEMATICS

## Graduate Faculty

**Amiran, Edoh Y.**, PhD, differential geometry, smooth dynamical systems.

**Anderson, Amy D.**, PhD, statistical genetics.

**Benyi, Arpad**, PhD, harmonic analysis, partial differential equations.

**Berget, Andrew S.**, PhD, algebraic and geometric combinatorics.

**Chalice, Donald R.**, PhD, Banach algebras, complex dynamics.

**Chan, Victor**, PhD, reliability, applied statistics.

**Curgus, Branko**, PhD, differential equations, operator theory.

**Gardner, Richard J.**, DSc, geometry, tomography.

**Glimm, Tilmann**, PhD, mathematical biology, geometric optics.

**Hartenstine, David A.**, PhD, partial differential equations.

**Johnson, Millie J.**, MEd, mathematics education.

**McDowall, Stephen R.**, PhD, inverse problems.

**Noguchi, Kimihiro**, PhD, nonparametric statistics.

**Nyman, Adam**, PhD, algebraic geometry, ring theory.

**Read, Thomas T.**, PhD, ordinary and partial differential equations.

**Sarkar, Amites**, PhD, combinatorics, probability theory, graph theory.

**Shen, Yun-Qiu**, PhD, nonlinear differential equations, numerical analysis.

**Treener, Stephanie**, PhD, modular forms, number theory.

**Ypma, Tjalling J.**, DPhil, numerical analysis.

**Zhang, Jianying**, PhD, numerical partial differential equations.

Program Advisor: Dr. Arpad Benyi, Bond Hall 218 360-650-3710

## Program Description

The graduate program in mathematics is designed to meet the requirements of subsequent professional and academic work in advanced mathematics. Students are prepared to continue to further graduate studies or for professional employment in industry or in college teaching. The focus is on providing a strong and broad analytical foundation, together with sufficient flexibility to pursue particular interests and areas of application in greater depth.

## Goals

The program prepares students for:

- Continuing further graduate studies, or
- Professional employment in industry, or
- College teaching.

## Prerequisites/Qualification Examination

To be eligible for admission to the MS program in mathematics, a student should have completed at least the following courses or the equivalent with grades of B or better: Math 224, 304, 312, 331, CS 141 or Math 307, and two math courses at the 400 level.

A student who has not completed all of these courses but who can demonstrate strong promise of the ability to succeed in the program may be admitted with special stipulations. In such cases, the graduate advisor will, in consultation with the student, specify the conditions to be satisfied by the student in order to fully qualify for the program.

## Program Application/Admission Requirements

**Deadline:** Please see Graduate School deadlines.

**TA Deadline:** Preferred consideration will be given to applicants who have completed files by March 1.

**Specific Test Requirements:** Graduate Record Exam, General Test.

Contact the mathematics department, 360-650-3785, or see its website at [www.wvu.edu/math/grad/prospective.shtml](http://www.wvu.edu/math/grad/prospective.shtml) for specifics.

Graduate School Admission Link

## Program Requirements

In most cases the student's program must include at least 45 credits (thesis option). At most 10 credits at the 400 level can be included in this total.

Students who have taken a significant number of graduate math courses as undergraduates at WWU may complete the graduate program with only 36 additional 500-level credits (details of this program are available from the Department of Mathematics).

The following mathematics courses or their equivalents must be completed before graduation: Math 504, 521, 522, 691 and 690 (for thesis) and at least one course or its equivalent from each of the following four lists

- ❑ Algebra:
  - MATH 502 - Abstract Algebra
  - MATH 503 - Topics in Abstract Algebra
  - MATH 560 - Topics in Geometry
  - MATH 564 - Graph Theory
  - MATH 566 - Topics in Combinatorics
- ❑ Analysis:
  - MATH 523 - Advanced Calculus of Several Variables
  - MATH 524 - Topics in Analysis
  - MATH 525 - Topology
  - MATH 527 - Real Analysis
  - MATH 528 - Functional Analysis
  - MATH 539 - Topics in Complex Analysis
  - MATH 562 - Differential Geometry
- ❑ Decisions:
  - MATH 535 - Nonlinear Optimization
  - MATH 542 - Mathematical Statistics
  - MATH 543 - Linear Statistical Models
  - MATH 545
  - MATH 570 - Topics in Optimization
- ❑ Applied:
  - MATH 510 - Mathematical Modeling
  - MATH 511 - Advanced Modeling
  - MATH 573 - Numerical Linear Algebra
  - MATH 575 - Numerical Analysis
  - MATH 577 - Topics in Numerical Analysis
- ❑ The student's program must also include at least four of the following courses: Math 503, 511, 523, 525, 527, 528, 533, 539, 545, 560, 562, 564, 566, 570, 573, 577.

A student who has not completed a senior-level course in each of the following areas will also be required to include the indicated course or courses as part of his or her program: abstract algebra (401), second course in ordinary differential equations (432), complex analysis (538), probability or statistics (541).

Graduate teaching assistants are required to take MATH 595 during their first year of study.

## Other Requirements

### Qualifying Examination for Candidacy

Each student must pass a qualifying exam before being advanced to candidacy.

# MATHEMATICS

## Advancement to Candidacy

Students are advanced to candidacy when they have completed at least 12 hours of approved course work with a B or better GPA, including at least one course numbered 500 or above, and have passed the qualifying exam.

## Project

Every student is required to complete a project (MATH 691). The project will involve both an oral exam on the subject of the project and a colloquium presentation to the mathematical community. The project must be completed before a student may elect the thesis option. See the departmental graduate handbook for additional details.

## Further Information and Advice

Each student is urged to prepare a program of courses in consultation with his or her advisor as soon as possible after beginning work toward a degree. Deviations from the requirements above may be approved by the department's Graduate Committee upon request of the student's advisor. For the student's protection, such approval should be obtained before any deviations are made.

A student who wishes to include a course numbered 400, 499, 500 or 599 as part of his or her graduate degree program must obtain approval in advance from the Graduate Committee. The Graduate Committee will consider approval on the basis of a detailed written description submitted by the student not later than three weeks before the date of registration. If the course is approved for graduate credit, the description will be retained in the student's file.

## Minor

### Mathematics Minor

Department of Mathematics, College of Science and Engineering

### 35 credits

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Declaration of Major

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- MATH 204 - Elementary Linear Algebra
- or

- MATH 203 - Linear Algebra and Differential Equations I
- MATH 224 - Multivariable Calculus and Geometry I
- One course from:
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
  - MATH 307 - Mathematical Computing
- 12 credits of approved electives from:
  - MATH 225 - Multivariable Calculus and Geometry II
  - MATH 226 - Limits and Infinite Series
  - And upper-division courses except:
    - MATH 307 - Mathematical Computing
    - MATH 381 - Teaching K-8 Mathematics I
    - MATH 382 - Teaching K-8 Mathematics II
    - MATH 383 - Teaching K-8 Mathematics III
    - MATH 483 - Methods of Teaching Secondary Mathematics
    - MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- Note: Only one of MATH 303 or MATH 331 may be counted toward minor.

## Mathematics — Secondary Minor

Department of Mathematics, College of Science and Engineering

**41 credits**

### Introduction

This minor leads to endorsement in secondary mathematics when accompanied by the professional program in secondary education and a qualifying endorsement in another content area. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Declaration of Major

### Grade Requirements

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

### Requirements

- MATH 204 - Elementary Linear Algebra
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 341 - Probability and Statistical Inference
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors

# MATHEMATICS

or

MATH 138 - Accelerated Calculus

## Additional Requirements

### Secondary Education Professional Program Requirements (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Mathematics Courses

### MATH 099 - Introductory Algebra

Gain skill working with algebraic language and concepts using graphs, tables and algebraic expressions and equations in order to prepare for math 112. Develop problem solving abilities and understanding. Polynomials, exponents, roots, radicals, and linear equations and inequalities and their graphs. Pass/Fail grading.

**Prerequisites & Notes:** NOTE: This course will fulfill 5 credits towards financial aid and veterans benefits requirements only. No credit will be allowed toward the graduation requirement of 180 credits.

**Credits:** 5

### MATH 101 - Functions and Algebraic Methods for K-8 Teachers

Designed for prospective K-8 teachers. Emphasizes pattern recognition and generalization, building mathematical models and problem solving.

Supporting topics include polynomials, linear and quadratic equations, inequalities, graphs, rational expressions and functions. Graphing calculators required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** Suitable General Math Placement Test score or college intermediate algebra course with a C- or better; instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### MATH 106 - Quantitative Reasoning

Develops abilities to understand quantitative information and make reasoned decisions using it. Focus is on reasoning and symbolic and quantitative models as they are commonly encountered in personal life, careers and public issues.

**Credits:** 4

**Grade Mode:** Letter

### MATH 107 - Mathematical Reasoning and Its Applications

Assessing quantitative information, reasoning, personal finance, data display and summary; making quantitative decisions about personal and public issues; understanding linear and exponential growth models; using basic probability techniques. Students interested in taking higher level mathematics courses should instead take an appropriate course from MATH 112, 114, 118, 124, 156, 157 or 240. Note: This course is not an acceptable prerequisite for MATH 112.

**Prerequisites & Notes:** Suitable General Math Placement Test score or C- or better in MATH 112 or MATH 99, or college intermediate algebra course.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

### MATH 112 - Functions and Algebraic Methods

Pattern recognition and generalization, building mathematical models and problem solving are emphasized. Supporting topics include



polynomials, linear and quadratic equations, inequalities, graphs, rational expressions, radicals and functions. Graphing calculator required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** Suitable General Math Placement Test score, MATH 99 or completion of a college intermediate algebra course with a C- or better. Note: Neither MATH 106 nor MATH 107 is acceptable pre-requisite for this course.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

**MATH 114 - Precalculus I**

Data analysis, functions as mathematical models, functions and their graphs. Graphing calculators are required. Cannot be counted toward majors or minors in mathematics or computer science. Students needing math for GUR purposes only should consider MATH 107 instead of MATH 114.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 with a C- or better.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

**MATH 115 - Precalculus II**

Data analysis, modeling, trigonometry, inverse functions. Graphing calculator required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** MATH 114 with a C- or better at Western  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

**MATH 118 - Accelerated Precalculus**

Not open to students who have taken a lower numbered mathematics course at Western. Functions as mathematical models, functions and their graphs, inverse functions, trigonometry. Graphing calculator required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** Suitable General or Advanced Math Placement Test score.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

**MATH 119A - Topics in Mathematics**

A supplement to one or more math courses offered at the 100 level. Repeatable, subject to permission of department.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 1-15  
**Grade Mode:** Letter

**MATH 119B - Topics in Mathematics**

A supplement to one or more math courses offered at the 100 level. Repeatable, subject to permission of department. S/U grading.

**Prerequisites & Notes:** Permission on instructor.  
**Credits:** 1-15  
**Grade Mode:** S/U

**MATH 124 - Calculus and Analytic Geometry I**

Average and instantaneous rates of change, interpretation, computation, and application of derivatives to optimization, rates, graphing, and antiderivative problems. Graphing calculator required.

**Prerequisites & Notes:** Suitable Advanced Math Placement Test score or C- or better in MATH 115 or MATH 118 at WWU or a grade of 2.5 or higher in the final quarter of a college precalculus sequence.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

**MATH 125 - Calculus and Analytic Geometry II**

The definite integral, techniques of integration, applications including area and volume, growth and decay, introduction to differential equations.

**Prerequisites & Notes:** MATH 124 or MATH 134.  
**Credits:** 5  
**Grade Mode:** Letter

**MATH 134 - Calculus I Honors**

Intended for particularly strong students. Average and instantaneous rates of change, interpretation, computation, and application of derivatives to optimization, rates, graphing, and antiderivative problems. Frequent writing assignments. Graphing calculator required.

**Prerequisites & Notes:** Suitable score on the Advanced Mathematics Placement test or an A in MATH 115 or MATH 118, and permission of instructor.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

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## **MATH 135 - Calculus II Honors**

Intended for particularly strong students. Riemann sums and the definite integral, interpretation and application to area, volume, growth and decay, techniques of integration. Introduction to differential equations. Frequent writing assignments.

**Prerequisites & Notes:** MATH 124 or MATH 134, and permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **MATH 138 - Accelerated Calculus**

Designed for entering freshmen who are thoroughly familiar with the computational aspects of single variable calculus. Students study selected topics from MATH 124 and 125 from a more conceptual point of view. Students who complete this course receive five credits of advanced placement (unless previously received). Not open to students who have taken MATH 124 or 125. Offered fall quarter only. AP mathematics credit and MATH 138 are equivalent to MATH 124 and 125.

**Prerequisites & Notes:** One year AP-level High School calculus; suitable score on the Advanced Math Placement Test and permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

## **MATH 156 - Algebra With Applications to Business and Economics**

Equations and inequalities, graphs and functions, exponential and logarithmic functions, applications to finance. This course is designed for business students continuing on to MATH 157.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 with a C- or better

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **MATH 157 - Calculus With Applications to Business and Economics**

Limits, rates of change, differentiation, graphing and optimization, integration, business applications, partial differentiation. MATH 124 may be substituted for MATH 157 but not vice versa. Cannot be taken for credit by a student who has already completed another college-level calculus course.

**Prerequisites & Notes:** Suitable Advanced Math Placement Test score or C- or better in MATH 156,

MATH 114 or MATH 118; or a final precalculus course with a C+ or better from an accredited college.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **MATH 160 - Mathematics and Art**

An investigation of the connections between mathematics, art and design with emphasis on mathematical inquiry and discovery. This problem solving course includes topics from a variety of mathematical disciplines such as: pattern and proportion, geometric constructions and proofs, symmetry and groups, polyhedra and origami, graphs and colorings, formal perspective, fractals and iterative processes, conics and curves.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 with a C- or better.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

## **MATH 203 - Linear Algebra and Differential Equations I**

First course in the 203-303 sequence. A unified treatment of the material on elementary linear algebra and elementary differential equations covered in MATH 204 and 331. Together with MATH 303, is equivalent to MATH 204 and MATH 331.

**Prerequisites & Notes:** MATH 125 or MATH 135 or equivalent

**Credits:** 4

**Grade Mode:** Letter

## **MATH 204 - Elementary Linear Algebra**

Systems of linear equations; matrices; the vector space  $R^n$ ; linear independence, bases, subspaces and dimension in  $R^n$ ; introduction to determinants and the eigenvalue problem; applications.

**Prerequisites & Notes:** MATH 125 or MATH 135; MATH 224 recommended

**Credits:** 4

**Grade Mode:** Letter

## **MATH 205 - Linear Algebra Workshop**

Elementary linear algebra projects on a computer. S/U grading.

**Prerequisites & Notes:** Math 204 or concurrent.

**Credits:** 1

**Grade Mode:** S/U

**MATH 220 - Visualization in Multivariable Calculus**

Weekly lab projects emphasizing the creation and interpretation of computer-generated graphs and contour diagrams for functions of several variables. Problems are drawn from material being studied in MATH 224. S/U grading.

**Prerequisites & Notes:** Math 224 or concurrent.

**Credits:** 1

**Grade Mode:** S/U

**MATH 224 - Multivariable Calculus and Geometry I**

Coordinate systems, curves and vectors in the plane and in space, partial derivatives, applications including optimization and motion, multiple integrals.

**Prerequisites & Notes:** MATH 125 or MATH 135, or MATH 138

**Credits:** 5

**Grade Mode:** Letter

**MATH 225 - Multivariable Calculus and Geometry II**

Multiple integrals, line and surface integrals, gradient fields, Green's and Stokes' theorems.

**Prerequisites & Notes:** MATH 224

**Credits:** 4

**Grade Mode:** Letter

**MATH 226 - Limits and Infinite Series**

Formal treatment of limits of functions and sequences of continuity, including a thorough training in constructing rigorous proofs of the epsilon-delta type. Convergence tests for infinite series. Radius of convergence, differentiation, and integration of Taylor series.

**Prerequisites & Notes:** MATH 125, MATH 135 or MATH 138

**Credits:** 4

**Grade Mode:** Letter

**MATH 240 - Introduction to Statistics**

Types of data, measures of center/spread, z-scores, graphical descriptions of data, the normal distribution, 1- and 2-sample hypothesis tests and confidence intervals for means and proportions, sample size calculations, chi-square tests, and one-way analysis of variance. Use of a statistical software package such as SPSS. Cannot be counted toward any major in the Department of Mathematics.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 or a precalculus course with a C+ or better from an accredited college.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** QSR

**MATH 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**MATH 302 - Introduction to Proofs Via Number Theory**

The properties of integers, prime numbers, Euclidean algorithm, congruences. The student is expected to develop competence in proving basic results in number theory.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138

**Credits:** 4

**Grade Mode:** Letter

**MATH 303 - Linear Algebra and Differential Equations II**

Second course in the MATH 203-303 sequence. A unified treatment of the material on elementary linear algebra and elementary differential equations covered in MATH 204 and 331. Together with MATH 203, is equivalent to MATH 204 and MATH 331.

**Prerequisites & Notes:** MATH 203

**Credits:** 4

**Grade Mode:** Letter

**MATH 304 - Linear Algebra**

Orthogonality and orthogonal bases; linear transformations and the least squares problem; further study of eigenvalues and eigenvectors and their applications; abstract vector spaces and linear transformations.

**Prerequisites & Notes:** MATH 204, MATH 224

**Credits:** 4

**Grade Mode:** Letter

**MATH 307 - Mathematical Computing**

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Use of mathematical software such as Matlab and Mathematica. Elementary programming, numerical and symbolic computation, visualization and technical reporting in mathematical context.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138; MATH 204

**Credits:** 4

**Grade Mode:** Letter

### **MATH 309 - Introduction to Proof in Discrete Mathematics**

Logic, sets, functions, sequences, counting methods, graph theory. The student is expected to develop competence in proving basic results in discrete mathematics.

**Prerequisites & Notes:** MATH 125

**Credits:** 4

**Grade Mode:** Letter

### **MATH 312 - Proofs in Elementary Analysis**

Open and closed sets in the line and plane, sequences, least upper bound axiom, continuous functions and their properties. The student is expected to develop competence in proving basic theorems involving these concepts.

**Prerequisites & Notes:** MATH 226; MATH 302 or MATH 309. Restricted to majors and minors during Registration Phase 1.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 331 - Ordinary Differential Equations**

First order equations, first order systems (primarily linear), applications and modeling, qualitative reasoning. First course in the 331-432 sequence.

**Prerequisites & Notes:** Math 204; Math 224 recommended or concurrent.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 341 - Probability and Statistical Inference**

Probability, including combinatorial methods, discrete distributions and continuous distributions using integrals. Descriptive statistics and the use of computer statistical package. Statistical inference, including confidence intervals and hypothesis testing. Please note: MATH 341 and MATH 345 cannot both be counted for credit.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138

**Credits:** 4

**Grade Mode:** Letter

### **MATH 342 - Statistical Methods I**

Statistical techniques including chi-square tests, simple and multiple linear regression, and one-way analysis of variance. Extensive use of a computer statistical package.

**Prerequisites & Notes:** MATH 341 or MATH 345

**Credits:** 4

**Grade Mode:** Letter

### **MATH 343 - Statistical Method II**

One- and two-way layouts, repeated-measures ANOVA, factorial designs, fixed versus random effects, multiple comparisons, logistic regression.

**Prerequisites & Notes:** MATH 342.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 344 - Honors Probability and Statistics**

Intended for particularly strong students. Probability, including combinatorial methods, discrete distributions and continuous distributions using integrals. Descriptive statistics and the use of a computer statistical package. Statistical inference, including confidence intervals and hypothesis testing. This class will substitute for Math 341 in any major/minor offered by the mathematics department.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138; and instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 345 - Statistics for Engineering**

Basic probability, discrete and continuous probability distributions. Descriptive statistics and the use of computer statistical packages. Statistical inference, including 1- and 2-sample hypothesis tests and confidence intervals for means and proportions, paired t test and sample size calculations. Engineering applications are emphasized. Please note: MATH 341 and MATH 345 cannot both be counted for credit.

**Prerequisites & Notes:** MATH 125

**Credits:** 4

**Grade Mode:** Letter

### **MATH 360 - Euclidean and Non-Euclidean Geometry**

Metric development of Euclidean geometry and consideration of non-Euclidean geometries.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138; MATH 204 and MATH 302 or MATH

309.

**Credits:** 4

**Grade Mode:** Letter

**MATH 381 - Teaching K-8 Mathematics I**

Investigations of mathematics topics that focus on logical reasoning, number concepts, and number operations. Emphasis on problem solving, the use of manipulatives and computing technologies, remediation and resource materials, and optimal pedagogical techniques that help students learn quality mathematics. Not acceptable for any departmental major except BA/Ed, Elementary, and does not satisfy GUR requirement except for those who complete the BA/Ed, Elementary.

**Prerequisites & Notes:** Suitable General Math Placement Test score; C or better in MATH 112 or college intermediate algebra course; one of ELED 370, ELED 372, SPED 420, ECE 391; Prerequisites must have been met within the last 5 years. Waiver of MPT due to college calculus course equivalent to WWU MATH 124.

**Credits:** 4

**Grade Mode:** Letter

**MATH 382 - Teaching K-8 Mathematics II**

Investigations of mathematics topics that focus on proportional thinking, rational numbers, and probability. Emphasis on problem solving, the use of manipulatives and computing technologies, remediation and resource materials, and optimal pedagogical techniques that help students learn quality mathematics. Not acceptable for any department major except BA/Ed, Elementary, and does not satisfy GUR mathematics requirement except for those who complete the BA/Ed, Elementary.

**Prerequisites & Notes:** MATH 381 with a C or better

**Credits:** 4

**Grade Mode:** Letter

**MATH 383 - Teaching K-8 Mathematics III**

Investigations of mathematics topics that focus on geometry, algebraic reasoning, measurement and statistics. Emphasis on problem solving, the use of manipulatives and computing technologies, remediation, assessment and resource materials, and optimal pedagogical techniques that help students learn quality mathematics. Not acceptable for any departmental major except BA/Ed, Elementary.

**Prerequisites & Notes:** MATH 382 with a C or better at WWU

**Credits:** 4

**Grade Mode:** Letter

**MATH 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**MATH 401 - Introduction to Abstract Algebra**

Introduction to groups, Lagrange's Theorem, isomorphisms and homomorphisms, normal subgroups and factor groups, the fundamental theorem of finite abelian groups.

**Prerequisites & Notes:** MATH 204; and MATH 302 or MATH 309.

**Credits:** 4

**Grade Mode:** Letter

**MATH 402 - Introduction to Abstract Algebra**

Introduction to rings and fields, ideals, polynomial rings, unique factorization domains, field extensions, finite fields.

**Prerequisites & Notes:** MATH 401

**Credits:** 4

**Grade Mode:** Letter

**MATH 405 - Algebraic Geometry**

An overview of algorithms and techniques inspired by geometry and used to solve systems of polynomial equations. Topics include affine varieties, polynomials, the division algorithm, Groebner bases, elimination theory, Hilbert's Nullstellensatz, the ideal-variety correspondence and basic projective geometry.

**Prerequisites & Notes:** MATH 204; MATH 302 or MATH 309.

**Credits:** 4

**Grade Mode:** Letter

**MATH 409 - Putnam Exam Preparation**

Preparation for participation in the annual Putnam Exam. This exam involves mathematical concepts beyond those typically found in standard courses. Questions cut across the bounds of disciplines and are hard. This course covers the basics of the relevant mathematical content, particularly in discrete mathematics, and emphasizes advanced problem-solving techniques. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

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**Credits:** 2  
**Grade Mode:** S/U

## **MATH 410 - Mathematical Modeling**

The construction and solution of mathematical models, using optimization, stability analysis, eigenvalue methods, probability and simulation.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 331  
**Credits:** 4  
**Grade Mode:** Letter

## **MATH 412 - Mathematical Modeling Competition**

Preparation for participation in the national mathematics modeling competition. Repeatable with no maximum.

**Prerequisites & Notes:** instructor permission  
**Credits:** 1  
**Grade Mode:** Letter

## **MATH 415 - Mathematical Biology**

An introduction to mathematical models in biology. Population models, Michaelis-Menten kinetics, models for neuron functioning, pattern formation. Mathematical topics: difference equations, dynamical systems, conservation equations, stochastic models.

**Prerequisites & Notes:** MATH 224; either MATH 204 and MATH 331, or MATH 203 and MATH 303  
**Credits:** 4  
**Grade Mode:** Letter

## **MATH 419 - Historical Perspectives of Mathematics**

History and development of mathematical thought from ancient to modern times. Philosophical, sociological and biographical perspectives.

**Prerequisites & Notes:** 12 credits upper-division math  
**Credits:** 3  
**Grade Mode:** Letter

## **MATH 420 - Topics in the History and Philosophy of Mathematics**

Concentrated study of a topic or a closely connected group of topics associated with the history and philosophy of mathematics. Students are required to write a substantial expository paper.

**Prerequisites & Notes:** MATH 312

**Credits:** 3  
**Grade Mode:** Letter

## **MATH 421 - Methods of Mathematical Analysis I**

Introduction to metric spaces, properties of functions on metric spaces, compactness and continuity. The student is expected to develop competence in proving basic theorems involving these concepts.

**Prerequisites & Notes:** MATH 312  
**Credits:** 4  
**Grade Mode:** Letter

## **MATH 422 - Methods of Mathematical Analysis II**

Analysis on the real line, including uniform convergence of series, using metric space notions. The student is expected to develop competence in proving theorems involving these concepts.

**Prerequisites & Notes:** MATH 421  
**Credits:** 4  
**Grade Mode:** Letter

## **MATH 424 - Topics in Analysis**

Topics such as pointwise convergence of Fourier series, Gibbs phenomenon, Poisson summability, Dirichlet problem for the disc, Weierstrass approximation theorem. Repeatable to a maximum of 8 credits with various topics.

**Prerequisites & Notes:** Math 422  
**Credits:** 4  
**Grade Mode:** Letter

## **MATH 430 - Fourier Series and Applications to Partial Differential Equations**

An introduction to Fourier series and the Fourier transform; applications to boundary value problems including the wave and heat equations.

**Prerequisites & Notes:** MATH 204, MATH 226, MATH 331  
**Credits:** 4  
**Grade Mode:** Letter

## **MATH 431 - Analysis of Partial Differential Equations**

Solutions for general first order and linear second order partial differential equations. Topics from characteristics; propagation of singularities; hyperbolic, and elliptic equations; Cauchy problem; Dirichlet problem; Green's function; Poisson formula; maximum principle.

**Prerequisites & Notes:** MATH 204, MATH 225, MATH 226, MATH 312, MATH 331, or equivalent(s).

**Credits:** 4

**Grade Mode:** Letter

### **MATH 432 - Systems of Differential Equations**

Forced second order equations, systems of nonlinear differential equations, applications.

**Prerequisites & Notes:** MATH 204, MATH 331; or MATH 203, MATH 303.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 438 - Introduction to Complex Variables**

Differentiation and integration of complex-valued functions; Cauchy integral theorem; calculations of residues.

**Prerequisites & Notes:** MATH 225 and MATH 312

**Credits:** 4

**Grade Mode:** Letter

### **MATH 441 - Probability**

Discrete and continuous random variables, moment generating functions, multivariate distributions, survey of widely used distributions such as normal, chi-square, gamma, t and F distributions. Emphasis on the theoretical aspects of probability.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 302 or MATH 309

**Credits:** 4

**Grade Mode:** Letter

### **MATH 442 - Mathematical Statistics**

Limiting distributions, the Central Limit Theorem, statistical inferences such as confidence intervals, hypothesis testing and chi-square tests, maximum likelihood methods, sufficiency.

**Prerequisites & Notes:** MATH 441 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **MATH 443 - Linear Statistical Models**

Matrix algebra for linear models, multivariate normal distribution, quadratic forms, Gauss-Markov Theorem, estimation in full-rank and less-than-full-rank models, hypothesis testing in full-rank models.

**Prerequisites & Notes:** MATH 441/541, and either MATH 342 or MATH 442/542, or equivalent(s).

**Credits:** 4

**Grade Mode:** Letter

### **MATH 444 - Categorical Data Analysis**

Statistical models and methods for categorical responses. Topics include chi-square and likelihood-ratio tests for the analysis of contingency tables, as well as a treatment of generalized linear models including logistic, cumulative logit, and Poisson regression. Extensive use of a computer statistical package.

**Prerequisites & Notes:** MATH 342

**Credits:** 4

**Grade Mode:** Letter

### **MATH 445 - Computational Statistics**

Generation of random variables, Monte Carlo simulation and variance reduction techniques, resampling methods including bootstrap, jackknife, and permutation, Markov chain Monte Carlo. Extensive use of a computer statistical package.

**Prerequisites & Notes:** MATH 341; MATH 224; and one of: CSCI 140, CSCI 141 or MATH 307.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 451 - Number Theory**

An overview of elementary number theory beyond MATH 302, including such topics as multiplicative functions, quadratic residues and reciprocity, primitive roots, nonlinear Diophantine equations, continued fractions, and cryptology.

**Prerequisites & Notes:** MATH 302

**Credits:** 4

**Grade Mode:** Letter

### **MATH 456 - Applied Time Series Analysis**

Exploratory analysis of trend and seasonality, stationary and non-stationary processes including ARIMA, model estimation, selection, diagnostics, and forecasting.

**Prerequisites & Notes:** MATH 342.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 457 - Bayesian Statistics**

Introduction to Bayesian inference; prior and posterior distributions; conjugate priors; statistical inference, including summarizing posterior information and making predictions; hierarchical and linear regression models. Monte Carlo methods including Gibbs sampling.

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**Prerequisites & Notes:** MATH 342 and MATH 442; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 458 - Stochastic Processes**

Selected topics in the area of stochastic processes including Random Walks, Markov Chains, Poisson Processes and Brownian Motion.

**Prerequisites & Notes:** MATH 441 or MATH 541.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 473 - Numerical Linear Algebra**

Norms; fundamental matrix types, transformations and factorizations; linear equations, linear least squares; rounding error, condition and stability; the algebraic eigenvalue problem (QR method).

**Prerequisites & Notes:** MATH 304; ability to program.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 483 - Methods of Teaching Secondary Mathematics**

Topics include pre-algebra, algebra, geometry, problem solving and resource materials.

**Prerequisites & Notes:** Minimum of two upper-division math courses, SEC 431, or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 490 - Senior Project**

Intensive study of an advanced topic in mathematics.

**Prerequisites & Notes:** Permission of the Department Chair.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 491 - Internship Seminar - Teaching K-8 Mathematics**

Focus on issues and practices related to teaching K-8 mathematics, coordinated with the year-long K-8 classroom internship. Includes the use of ideas, theory, and lesson plans from the Mathematics 381-383 sequence in actual classroom settings, plus opportunity to assess and work with K-8 students on an individual, small group, and whole class basis. Not acceptable for any departmental major except BA/Ed, Elementary. S/U grading.

**Prerequisites & Notes:** MATH 383 with a C or better at WWU

**Credits:** 2

**Grade Mode:** S/U

### **MATH 495 - Academic or Industrial Learning and Research Experience in Math**

Participation in a learning program, research project or internship in business, industry, a government agency or academic institution. Oral and written report required. Repeatable to a maximum of 8 cr. S/U grading.

**Prerequisites & Notes:** 20 credits math above the 100-level; department permission

**Credits:** 1-4

**Grade Mode:** S/U

### **MATH 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **MATH 502 - Abstract Algebra**

Introduction to rings and fields, ideals, polynomial rings, unique factorization domains, field extensions, finite fields.

**Prerequisites & Notes:** MATH 401 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **MATH 503 - Topics in Abstract Algebra**

Topics such as Galois theory, number theory, group representation theory, algebraic geometry, Lie algebras. Repeatable with various topics.

**Prerequisites & Notes:** MATH 502 or equivalent

**Credits:** 3

**Grade Mode:** Letter

### **MATH 504 - Abstract Linear Algebra**

Abstract vector spaces, linear transformations, spectral theory.

**Prerequisites & Notes:** MATH 304 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **MATH 505 - Algebraic Geometry**



An overview of algorithms and techniques inspired by geometry and used to solve systems of polynomial equations. Topics include affine varieties, polynomials, the division algorithm, Groebner bases, elimination theory, Hilbert's Nullstellensatz, the ideal-variety correspondence and basic projective geometry.

**Prerequisites & Notes:** MATH 204 and one of either MATH 302 or MATH 309; or by permission of instructor  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 510 - Mathematical Modeling**

The construction and solution of mathematical models, using optimization, stability analysis, eigenvalue methods, probability and simulation.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 331  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 511 - Advanced Modeling**

Exact and numerical techniques for the development and analysis of models of dynamic processes, including the construction and validation of models.

**Prerequisites & Notes:** MATH 331; instructor permission  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 515 - Mathematical Biology**

An introduction to mathematical models in biology. Population models, Michaelis-Menten kinetics, models for neuron functioning, pattern formation. Mathematical topics: difference equations, dynamical systems, conservation equations, stochastic models.

**Prerequisites & Notes:** MATH 224; MATH 204 and MATH 331 or MATH 203 and MATH 303  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 521 - Methods of Mathematical Analysis I**

Introduction to metric spaces, properties of functions on metric spaces, compactness and continuity.

**Credits:** 4  
**Grade Mode:** Letter

**MATH 522 - Methods of Mathematical Analysis II**

Analysis on the real line, including uniform convergence of series, using metric space notions.

**Prerequisites & Notes:** MATH 521  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 523 - Advanced Calculus of Several Variables**

Parameterization, integration and changes of variables in Euclidean spaces.

**Prerequisites & Notes:** MATH 304 or equivalent; MATH 521  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 524 - Topics in Analysis**

Topics such as pointwise convergence of Fourier series, Gibbs phenomenon, Poisson summability, Dirichlet problem for the disc, Weierstrass approximation theorem. Repeatable to a maximum of 8 credits with various topics.

**Prerequisites & Notes:** MATH 522  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 525 - Topology**

Topological spaces, connectedness, compactness, product and quotient spaces, homotopy.

**Prerequisites & Notes:** MATH 521  
**Credits:** 3  
**Grade Mode:** Letter

**MATH 527 - Real Analysis**

Theory of Lebesgue measure and integration.

**Prerequisites & Notes:** MATH 522  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 528 - Functional Analysis**

Spaces of functions, linear functionals and their representation, applications.

**Prerequisites & Notes:** MATH 522  
**Credits:** 4  
**Grade Mode:** Letter

**MATH 530 - Fourier Series and Applications to Partial Differential Equations**

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An introduction to Fourier series and the Fourier transform; applications to boundary value problems including the wave and heat equations.

**Prerequisites & Notes:** MATH 204, MATH 226, MATH 331 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **MATH 531 - Analysis of Partial Differential Equations**

Solutions for general first order and linear second order partial differential equations emphasizing geometric properties and integral representations. Topics include characteristics; propagation of singularities; hyperbolic, elliptic, and parabolic equations; Cauchy problem; Dirichlet problem; Green's function; Poisson formula; maximum principle.

**Prerequisites & Notes:** MATH 204, MATH 225, MATH 226, MATH 312, MATH 331, or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 533 - Advanced Ordinary Differential Equations**

Existence and uniqueness of solutions, stability theory for nonlinear equations, bifurcation.

**Prerequisites & Notes:** MATH 432 or equivalent; MATH 521

**Credits:** 3

**Grade Mode:** Letter

### **MATH 535 - Nonlinear Optimization**

Nonlinear programming with emphasis on basic theory (including Lagrange multipliers and the Kuhn-Tucker conditions), algorithms for numerical solution of problems, and applications. Introductory dynamic programming, with emphasis on applications and algorithms.

**Prerequisites & Notes:** MATH 204, MATH 224; CSCI 140 or CSCI 141 or MATH 307.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 538 - Complex Variables**

Differentiation and integration of complex-valued functions, Cauchy integral theorem, residues.

**Prerequisites & Notes:** MATH 312 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 539 - Topics in Complex Analysis**

Topics such as normal families, mapping properties of analytic functions, conformal mappings, fluid flow, Dirichlet and Neumann problems, Julia sets. Repeatable with various topics.

**Prerequisites & Notes:** MATH 521, MATH 538

**Credits:** 3

**Grade Mode:** Letter

### **MATH 541 - Probability**

Discrete and continuous random variables, moment generating functions, multivariate distributions, survey of widely used distributions such as normal, chi-square, gamma, t and F distributions. Emphasis on the theoretical aspects of probability.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 312

**Credits:** 4

**Grade Mode:** Letter

### **MATH 542 - Mathematical Statistics**

Limiting distributions, the Central Limit Theorem, statistical inferences such as confidence intervals, hypothesis testing and chi-square tests, maximum likelihood methods, sufficiency.

**Prerequisites & Notes:** MATH 441 or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **MATH 543 - Linear Statistical Models**

Matrix algebra for linear models, multivariate normal distribution, quadratic forms, Gauss-Markov Theorem, estimation in full-rank and less-than-full-rank models, hypothesis testing in full-rank models.

**Prerequisites & Notes:** MATH 441/541, and either MATH 342 or MATH 442/542 or equivalent(s).

**Credits:** 4

**Grade Mode:** Letter

### **MATH 545 - Topics in Probability**

Topics from Markov and sequential decision processes, renewal theory, inventory theory, stochastic control, random arrival and service processes, waiting time, number in queue, bulk arrivals, networks, balking. Repeatable with various topics.

**Prerequisites & Notes:** MATH 541

**Credits:** 3

**Grade Mode:** Letter

### **MATH 551 - Number Theory**

An overview of topics in elementary number theory, including multiplicative functions, quadratic residues and reciprocity, nonlinear Diophantine equations, continued fractions, primality testing and cryptology.

**Prerequisites & Notes:** MATH 302; or by permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### **MATH 556 - Applied Time Series Analysis**

Exploratory analysis of trend and seasonality, stationary and non-stationary processes including ARIMA, model estimation, selection, diagnostics, and forecasting.

**Prerequisites & Notes:** MATH 342.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 557 - Bayesian Statistics**

Introduction to Bayesian inference; prior and posterior distributions; conjugate priors; statistical inference, including summarizing posterior information and making predictions; hierarchical and linear regression models. Monte Carlo methods including Gibbs sampling.

**Prerequisites & Notes:** MATH 342 and MATH 442 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 558 - Stochastic Processes**

Selected topics in the area of stochastic processes including Random Walks, Markov Chains, Poisson Processes and Brownian Motion.

**Prerequisites & Notes:** MATH 441 or MATH 541.

**Credits:** 4

**Grade Mode:** Letter

### **MATH 560 - Topics in Geometry**

A study of one or more topics in geometry such as convex sets, polytopes, tilings, integral geometry or combinatorial geometry. Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **MATH 562 - Differential Geometry**

Geometry of curves, surfaces and manifolds.

**Prerequisites & Notes:** MATH 522

**Credits:** 4

**Grade Mode:** Letter

### **MATH 564 - Graph Theory**

Basic properties of graphs, trees, Eulerian and Hamiltonian circuits, genera of graphs, algorithms, applications.

**Credits:** 3

**Grade Mode:** Letter

### **MATH 566 - Topics in Combinatorics**

Counting techniques, generating functions, coding, coloring and relations with probability theory. Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **MATH 570 - Topics in Optimization**

Topics taken from nonlinear programming, calculus of variations or the theory of optimal control. Repeatable with various topics.

**Prerequisites & Notes:** MATH 304, MATH 521

**Credits:** 4

**Grade Mode:** Letter

### **MATH 573 - Numerical Linear Algebra**

Norms; fundamental matrix types, transformations and factorizations; linear equations, linear least squares; rounding error, condition and stability; the algebraic eigenvalue problem (QR method).

**Prerequisites & Notes:** MATH 304; ability to program

**Credits:** 4

**Grade Mode:** Letter

### **MATH 575 - Numerical Analysis**

Polynomial interpolation including splines, orthogonal systems of functions and least squares approximation; numerical differentiation and integration; solution of systems of nonlinear equations and unconstrained optimization.

**Prerequisites & Notes:** MATH 224, M/CS 375

**Credits:** 4

**Grade Mode:** Letter

### **MATH 577 - Topics in Numerical Analysis**

Topics from numerical optimization, approximation, linear algebra, quadrature, and the solution of algebraic and differential equations. Repeatable with various topics.

## MATHEMATICS

**Prerequisites & Notes:** MATH 573 or M/CS 375

**Credits:** 4

**Grade Mode:** Letter

### **MATH 582 - Teaching Core College Mathematics**

Teaching content presentation and problem solving skills in the context of core college math classes at the level of calculus and above.

**Prerequisites & Notes:** Graduate status.

**Credits:** 3

**Grade Mode:** Letter

### **MATH 595 - Teaching Algebra and Precalculus**

Curriculum and instructional support for teaching the algebra and precalculus sequence. S/U grading.

**Credits:** 2

**Grade Mode:** S/U

### **MATH 599 - Mathematics Seminar**

Repeatable to a maximum of 4 cr.

**Credits:** 1-3

**Grade Mode:** Letter

### **MATH 680 - Internship in Industrial Mathematics**

An internship in industry, government, or other organizations during which participants will work with people in the host organization on problems of a quantitative nature. Number of credits depends on time spent at the host organization. S/U grading.

**Prerequisites & Notes:** MATH 510, MATH 547, MATH 575 or equivalents

**Credits:** 2-8

**Grade Mode:** S/U

### **MATH 690 - Thesis**

Repeatable to a maximum of 4 cr. S/U grading.

**Credits:** 1-4

**Grade Mode:** S/U

### **MATH 691 - Required Project**

Repeatable to a maximum of 2 cr. S/U grading.

**Prerequisites & Notes:** advancement to candidacy

**Credits:** 1-2

**Grade Mode:** S/U

## Mathematics/Computer Science Courses

### **M/CS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **M/CS 335 - Linear Optimization**

The optimization of linear functions subject to linear constraints. Linear programming, duality theory, sensitivity analysis, applications.

**Prerequisites & Notes:** MATH 204; and one of CSCI 140 or CSCI 141 or MATH 307.

**Credits:** 4

**Grade Mode:** Letter

### **M/CS 375 - Numerical Computation**

Computer arithmetic, solution of nonlinear equations and optimization in a single variable; matrix factorization; matrix iterative techniques.

**Prerequisites & Notes:** MATH 204; CSCI 140 or CSCI 141 or MATH 307.

**Credits:** 4

**Grade Mode:** Letter

### **M/CS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **M/CS 435 - Nonlinear Optimization**

Nonlinear optimization with emphasis on basic theory (including Lagrange multipliers and the Kuhn-Tucker conditions), algorithms for numerical solution of problems, and applications. Introductory dynamic programming, with emphasis on applications and algorithms.

**Prerequisites & Notes:** MATH 204; MATH 224; MATH 331; CSCI 140 or CSCI 141 or MATH 307.

**Credits:** 4

**Grade Mode:** Letter

### **M/CS 475 - Numerical Analysis**

Polynomial interpolation including splines, orthogonal systems of functions and least squares approximation; numerical differentiation and integration; solution of systems of nonlinear equations and unconstrained optimization.

**Prerequisites & Notes:** MATH 224, M/CS 375

**Credits:** 4

**Grade Mode:** Letter

# Physics and Astronomy

## Introduction

Physics is the most foundational of sciences. It is the study of matter, energy, space and time. Astronomy, biology, chemistry, geology and engineering apply the principles of physics to specific problems. Almost all areas of modern technology involve applications of physics. The Department of Physics and Astronomy offers a Bachelor of Science (BS) degree in Physics and a Bachelor of Arts in Education (BAE) degree in Physics/Mathematics education. Students graduating with the BS degree in physics are well prepared for graduate school in physics, astronomy, materials science, and education as well as several fields of engineering and a variety of professions in industry.

## Coursework

The BS in physics is based on a core curriculum that covers fundamental theories of physics: classical mechanics, thermodynamics, electromagnetism, and quantum mechanics. Laboratory work forms an important part of the core with sophisticated upper-division laboratories in electronics, astronomy, optics, and material physics. Students planning graduate work and professional careers in astronomy should select the BS program in physics and complete the full year of 300-level astronomy courses offered in the department.

## Research

The Department of Physics and Astronomy values the role of research in the undergraduate experience. Students work collaboratively with peers and faculty to investigate open-ended problems of current interest. The department has research specialists in condensed matter and materials physics, astronomy, and physics education. Research topics in condensed matter and materials physics include magnetism and magnetic materials, organic semiconductor materials, surface science, paleomagnetism, and a variety of theoretical and computational subfields. Many of these research areas offer opportunities to collaborate across disciplines with faculty and students in Western's Advanced Materials Science and Engineering Center (AMSEC). Research topics in astronomy include observational and theoretical studies of the Milky Way, distant galaxies and galaxy clusters using imaging and spectroscopy at multiple wavelengths.

Research topics in physics education research include the identification of specific conceptual and

reasoning difficulties and the development and testing of instructional strategies.

## Teaching

Physics majors are encouraged to participate as laboratory teaching assistants. Such involvement provides valuable experience and financial support. Students report their teaching experience deepens their understanding of fundamental physics concepts, builds leadership and communication skills, and fosters community. Close collaboration among faculty and students in teaching and learning is one of the strengths of the department.

## Faculty

**ANDREAS RIEMANN** (2006) Chair and Associate Professor. BS, MS, University Halle, Germany; PhD, Free University Berlin, Germany.

**ANDREW BOUDREAU** (2008) Associate Professor. BS, University of California-Berkeley; PhD, University of Washington.

**KEVIN COVEY** (2014) Assistant Professor. BA, Carleton College; PhD, University of Washington.

**MILTON FROM** (1998) Associate Professor. BSC, University of Manitoba; MSc, PhD, McGill University.

**BRAD JOHNSON** (1997) Professor. BS, MS, University of Colorado-Colorado Springs; PhD, University of Colorado-Boulder.

**KRISTEN LARSON** (2002) Associate Professor. BS, University of California-San Diego; MS, PhD, Rensselaer Polytechnic Institute.

**JANELLE LEGER** (2008) Associate Professor. BS, University of California-Davis; PhD, University of California - Santa Cruz.

**ARMIN RAHMANI** (2016) Assistant Professor. BS, Baha'i Institute for Higher Education; PhD, Boston University.

**MELISSA R. RICE** (2014) Assistant Professor. BA, Wesley College; MS, PhD, Cornell University.

**KENNETH RINES** (2008) Associate Professor. BA, Rice University; AM, PhD, Harvard University.

**TAKELE SEDA** (2002) Associate Professor. BS, Asmara University (Eritrea); MS, Addis Ababa University (Ethiopia); PhD, University of the Witwatersand, Johannesburg, South Africa.

## Adjunct Faculty

**REGINA BARBER DEGRAAFF**, BS, Physics, Western Washington University; MS, Physics, San Diego State University; PhD, Physics, Washington State University.

**BRANDON PEDEN**, BS, Physics, MS, Mathematics, Western Washington University; PhD, Physics, University of Colorado-Boulder.

**KATHLEEN SANDELIN**, BS, Chemistry, Western Washington University; MS, Physics, College of William and Mary.

## Declaring a Physics Major/Minor

Students are advised to declare the major as soon as possible, ideally no later than the end of the freshmen year or immediately upon transfer to Western. Admission to the Physics B.S. major is a two-step process - see details under the Physics B.S. below. Declaring the major allows you to receive important information from the department, priority enrollment into required courses, and benefits such as accounts on department computers and access to department study space. Contact the department office to declare the Physics B.S. major or a minor (Physics or Astronomy) in person or by email. Be sure to provide unofficial copies of your transcript(s). We will determine which of the courses you have already taken will be applied toward the major/minor and develop a plan of study for the remaining coursework. If you are not sure which program option is for you, we can help. For the Physics/Mathematics - Secondary, BAE, contact the Math department (see below).

## Other Departmental Information

### Advice to Freshman

The core curriculum for the BS program is arranged sequentially, with earlier courses required as prerequisites for later courses. Thus, it is important to start the core sequence as early as possible, since any substantial delay will result in the student needing more than four years to complete the degree. All core courses require mathematics, and calculus is particularly important. For this reason, freshmen considering a major in physics should enroll in MATH 124, MATH 134, or MATH 138 during their first quarter at Western concurrently with PHYS 161. Freshmen who have had calculus in high school are advised to take PHYS 161 during their first quarter, along with the appropriate level of calculus course. Freshmen who have had no calculus at all should

postpone PHYS 161 until they may concurrently complete MATH 124, MATH 134, or MATH 138 with PHYS 161.

### Advice to Transfer Students

The first two years of the physics BS program is based on the following core courses:

- PHYS 161, PHYS 162, PHYS 163; MATH 124 or MATH 134, MATH 125 or MATH 135, or MATH 138, MATH 224
- PHYS 224, PHYS 225, PHYS 226, PHYS 322; PHYS 326, MATH 204, MATH 304, MATH 331; CSCI 140 or CSCI 141

Students planning to transfer to Western from a community college should strive to take as many equivalents of the courses above as possible. The community college sequence equivalent to PHYS 161-162-163 will usually be called introductory physics with calculus and will probably include labs. MATH 124 or 134, MATH 125 or 135, or 138, 224 is the first year of college calculus. MATH 204 is Elementary Linear Algebra, MATH 304 is Linear Algebra and MATH 331 is Ordinary Differential Equations. Students should be aware that like-named 200-level community college courses may not transfer as equivalent.

### Information

Anyone interested in learning more about the study of physics at Western is invited to write, phone, e-mail, fax or visit the Department of Physics and Astronomy, Western Washington University, Bellingham, WA 98225-9164, telephone: 360-650-3818, fax: 360-650-6505. The department office is in Communication Facility 385. Information about Western's physics and astronomy programs is also available at the department website, [www.wvu.edu/depts/physics](http://www.wvu.edu/depts/physics).

## Bachelor of Arts in Education

### Chemistry/Physics — Secondary, BAE (see Chemistry Department)

Chemistry/Physics - Secondary, BAE (see Chemistry Department)

### Physics/Mathematics — Secondary, BAE

Combined major offered by the Department of Physics and Astronomy, College of Science and Engineering and the Department of Mathematics, College of Science and Engineering.

**104 credits**

# PHYSICS AND ASTRONOMY

## Introduction

Physics is the fundamental science. It is the study of matter and energy and of the interaction between the two. Astronomy, Biology, Chemistry, Geology and Engineering apply the principles of Physics to specific problems. Almost all areas of modern technology involve applications of Physics.

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than Arithmetic and Geometry, Mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

## Why Consider a Physics/Mathematics - Secondary Major?

Teaching mathematics and physics is a challenge, a responsibility, and an opportunity. Learning to teach mathematics and physics occurs through a variety of means: the study of a wide variety of mathematics and physics, pedagogical preparation within a mathematical and science context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in mathematics and physics.

Everyone aspiring to be a mathematics and physics teacher is aware of the demand for qualified teachers at the secondary level, but there is an even greater need for quality mathematics and physics teachers—teachers who care about both students and mathematics and physics, teachers who have a broad and deep understanding of mathematics and physics, and teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective teacher you need to focus on expanding your personal understanding of mathematics and physics and capitalizing on opportunities to work with pre-college students as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship. Are you up to it?

Contact Information		
<b>Advisor</b> Mildred Johnson Bond Hall 212 360-650-3459 Millie.Johnson@wwu.edu	<b>Math Department</b> Bond Hall 202 360-650-3785 mathdept@wwu.edu	<b>Physics Department</b> Communications Facility 385 360-650-3818
<b>Secondary Education Professional Program Information Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3347 Janna.Cecka@wwu.edu	<b>Secondary Education Program Coordinator</b> Christina Carlson Miller Hall 401A 360-650-3327 Christina.Carlson@wwu.edu	
Sample Careers		
Secondary Education Teacher		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process)

Students are advised to declare the major as soon as possible, ideally no later than the end of the freshmen year or immediately upon transfer to Western. Contact the department office to declare in person or by mail. Be sure to provide unofficial copies of your transcript(s). We will determine which of the courses you have already taken will be applied toward the major and develop a plan of study for the remaining coursework. If you are not sure which program option is for you, we can help. Declaring the major allows you to receive



important information from the department, priority enrollment into required courses, and benefits such as accounts on department computers and access to department study space.

This major must be accompanied by the professional education program in secondary education. This major meets the requirements for Washington state teaching endorsements in both physics and mathematics. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

A cumulative GPA of at least 2.50, plus a minimum grade of C (2.0) or better in the individual courses, must be maintained in the courses required by the major. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

### Requirements

- ASTR 315 - The Solar System
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors and
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra and
  - MATH 331 - Ordinary Differential Equations
  - or
  - MATH 203 - Linear Algebra and Differential Equations I and
  - MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- At least two of the following:
  - MATH 307 - Mathematical Computing
  - MATH 341 - Probability and Statistical Inference
  - MATH 410 - Mathematical Modeling
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
  - PHYS 226 - Physics with Calculus IV
  - PHYS 224 - Modern Physics I
  - PHYS 225 - Modern Physics II
  - PHYS 322 - Fundamentals of Electronics
  - PHYS 326 - Tools and Data Analysis
  - PHYS 363 - Classical Mechanics
  - PHYS 391 - Junior Lab
  - SCED 370 - Science and Society
  - SCED 481 - Fundamentals of Teaching Science
  - SCED 491 - Methods in Secondary Education for Science Teachers
- 6 additional credits of upper-division physics or astronomy courses

### Additional Requirements

# PHYSICS AND ASTRONOMY

## Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Bachelor of Science

### Physics, BS

Department of Physics and Astronomy, College of Science and Engineering

**104-108 credits**

#### Introduction

Physics is the fundamental science. It is the study of matter and energy and the interaction between the two. Astronomy, Biology, Chemistry, Geology and Engineering apply the principles of physics to specific problems. Almost all areas of modern technology involve applications of physics. An undergraduate major in Physics provides a solid foundation upon which to build later work and study in physics, astronomy and engineering.

#### Why Consider a Physics Major?

A Bachelor's degree in Physics provides an excellent foundation in liberal arts and technology. The Physics BS degree can open a variety of doors for jobs in high tech industries, government labs, and as preparation for graduate school. Recent Physics graduates have found positions in a variety of fields including engineering, software development, optoelectronics, failure analysis, and education, among many others. Many graduates have found the skills acquired in our degree program have prepared them for further academic studies in Physics, Astronomy, Engineering, Patent Law, Medical Physics, Medicine, and Education to name a few.

#### Contact Information

##### Undergraduate Advisor

Andreas Riemann  
Communications Facility 385  
360-650-3818  
Andreas.Riemann@wwu.edu

##### Administrative Manager

Donna VanderGriend  
Communications Facility 385  
360-650-3818  
Donna.VanderGriend@wwu.edu

#### Sample Careers

Astronomer | Engineer | Research and Development Scientist | Laboratory Technician | Software Developer | Technical Consultant | Physics Teacher | Industrial Hygienist | Geophysicist | Seismologist | Optical Devices Designer | Satellite Data Analyst | Science Writer

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Admission to the Physics BS major is a two-step process. Students are classified as Phase I majors until they have completed PHYS 161, 162, 163, 224, 225, 226; and MATH 124, 125, 224; and MATH 203 and 303 (or MATH 204, 304, and 331). Admission to Phase II is based on students' academic performance in the Phase I courses. Students with a cumulative grade point average of 3.0 or higher in the Phase I courses will be given preferential admission to Phase II, while students with a cumulative grade point average below 3.0 in the Phase I courses will be considered for admission on a case by case basis. Note, however, that neither completion of the prerequisites nor attainment of any specific GPA guarantees admission to Phase II.

Students may obtain Phase I major status by contacting the Physics/Astronomy department, Communications Facility 385, and completing the Phase I major form. At this time students will be assigned an academic adviser from the physics faculty.

The application to Phase II includes an application form and a transcript, and should be submitted to the department main office by the end of the 5th week of Spring quarter during the sophomore year of the major program. Phase II major status will be granted by the beginning of Fall quarter of the junior year.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- ASTR 315 - The Solar System
- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 224 - Modern Physics I
- PHYS 225 - Modern Physics II
- PHYS 226 - Physics with Calculus IV
- PHYS 322 - Fundamentals of Electronics
- PHYS 326 - Tools and Data Analysis
- PHYS 335 - Statistical and Thermal Physics
- PHYS 339 - Optics
- PHYS 363 - Classical Mechanics
- PHYS 368 - Electromagnetism I
- PHYS 369 - Electromagnetism II
- PHYS 391 - Junior Lab
- PHYS 419 - Professional Writing for Physicists
- PHYS 455 - Quantum Mechanics I
- PHYS 456 - Quantum Mechanics II
- PHYS 475 - Physics of Solids and Materials I
- PHYS 485 - Mathematical Physics
- PHYS 486 - Computational Physics
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors and
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
  - or

## PHYSICS AND ASTRONOMY

MATH 204 - Elementary Linear Algebra  
MATH 304 - Linear Algebra  
MATH 331 - Ordinary Differential Equations

Choose either:

CSCI 140 - Programming Fundamentals in C++  
CSCI 141 - Computer Programming I

One course selected from:

PHYS 391 - Junior Lab (as a repeated course)  
PHYS 444 - Special Topics in Physics  
PHYS 476 - Physics of Solids and Materials II  
ASTR 316 - Stars and Galaxies  
ASTR 320 - Cosmology  
ASTR 416 - Astrophysics  
or other courses under advisement

## Minor

### Astronomy Minor

Department of Physics and Astronomy, College of Science and Engineering

**24 credits**

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Admission to the Minor

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

Choose one of the following series:

PHYS 114 - Principles of Physics I  
PHYS 115 - Principles of Physics II  
PHYS 116 - Principles of Physics III

Or

PHYS 161 - Physics with Calculus I  
PHYS 162 - Physics with Calculus II  
PHYS 163 - Physics with Calculus III

- ASTR 315 - The Solar System  
 ASTR 316 - Stars and Galaxies  
 ASTR 320 - Cosmology

### Physics Minor

Department of Physics and Astronomy, College of Science and Engineering

**43-48 credits**

## Introduction

Physics is the fundamental science. It is the study of matter and energy and the interaction between the two. Astronomy, Biology, Chemistry, Geology and Engineering apply the principles of physics to specific problems. Almost all areas of modern technology involve applications of physics.

Contact Information	
<b>Undergraduate Advisor</b> Andreas Riemann Communications Facility 385 360-650-3818 Andreas.Riemann@wwu.edu	<b>Administrative Manager</b> Donna VanderGriend Communications Facility 385 360-650-3818 Donna.VanderGriend@wwu.edu
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

## How to Declare (Admission and Declaration Process):

Admission to the Minor

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 224 - Modern Physics I
- PHYS 225 - Modern Physics II
- PHYS 226 - Physics with Calculus IV
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and  
MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors and  
MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 203 - Linear Algebra and Differential Equations I and  
MATH 303 - Linear Algebra and Differential Equations II
  - or
  - MATH 204 - Elementary Linear Algebra and  
MATH 331 - Ordinary Differential Equations

## Astronomy Courses

### ASTR 103 - Introduction to Astronomy

A survey of astronomy including stars, galactic structure and cosmology. Not recommended for science, math or computer science majors.

**Prerequisites & Notes:** MATH 107 or higher.  
**Credits:** 4

**Grade Mode:** Letter  
**GUR Attributes:** SCI

### ASTR 113 - Sun, Moon, and Planets

Introduction to the Solar System. Topics include the motion of objects in the sky, seasons, phases of the Moon and eclipses, and the properties of the Sun, planets, and moons with discussion of recent results from space missions. Some class sessions will be held in the planetarium. Open to all students.

## PHYSICS AND ASTRONOMY

**Prerequisites & Notes:** MATH 107 or higher.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

### **ASTR 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ASTR 315 - The Solar System**

Introduction to the modern physical understanding of the Solar System. Topics include gravity, orbits, the formation of stars and planets, planetary atmospheres and surfaces, physical processes in the Solar System.

**Prerequisites & Notes:** PHYS 114, PHYS 115 and PHYS 116; or PHYS 161, PHYS 162 and PHYS 163

**Credits:** 3

**Grade Mode:** Letter

### **ASTR 316 - Stars and Galaxies**

Observational evidence of the nature of stars; star formation and star death; structure and kinematics of the Milky Way and other galaxies.

**Prerequisites & Notes:** ASTR 315; PHYS 114, PHYS 115 and PHYS 116 or PHYS 161, PHYS 162 and PHYS 163.

**Credits:** 3

**Grade Mode:** Letter

### **ASTR 320 - Cosmology**

Large-scale structure of the universe; black holes and active galaxies; curved spacetime; evolution of the expanding universe; the Big Bang and the early universe.

**Prerequisites & Notes:** ASTR 316.

**Credits:** 3

**Grade Mode:** Letter

### **ASTR 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for

General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ASTR 416 - Astrophysics**

Application of physics to stars, nebulae and galaxies. Radiation; atomic spectra and chemical abundances in stellar atmospheres and gaseous nebulae; nuclear synthesis in stars; stellar evolution.

**Prerequisites & Notes:** ASTR 316; PHYS 335; PHYS 363.

**Credits:** 3

**Grade Mode:** Letter

## Physics Courses

### **PHYS 101 - Physics Analysis**

In-depth analysis of physical phenomena such as the motion of objects and conditions for equilibrium; development and application of conceptual models that account for observations and have predictive power. Instruction seeks to actively engage students in scientific reasoning. Lab.

**Prerequisites & Notes:** MATH 107 or higher.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### **PHYS 102 - Physics and Contemporary Issues**

Exploration of the relationships between basic physics concepts and broader social issues such as the generation of energy or global climate change; using scientific evidence to judge claims and construct arguments.

**Prerequisites & Notes:** Math 107 or higher.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

### **PHYS 104 - Physics Applications**

A study of physics as a human endeavor to understand everyday phenomena and the development of technology. Exploration of basic concepts from physics relevant to phenomena such as weather, music, or sports; investigation of the effects of technology and the causes of disasters; new advances in applied physics. Lab.

**Prerequisites & Notes:** MATH 107 or higher

**Credits:** 4

**Grade Mode:** Letter  
**GUR Attributes:** LSCI

**PHYS 114 - Principles of Physics I**

Kinematics and dynamics of particles; force, momentum, energy; rotational dynamics and equilibrium; gravity and oscillations. Recommended for students in science and pre-professional programs not requiring physics with calculus.

**Prerequisites & Notes:** MATH 115 or MATH 118.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** SCI

**PHYS 115 - Principles of Physics II**

Fluids; kinetic theory; heat and thermodynamics; principles of electricity and magnetism. Lab.

**Prerequisites & Notes:** PHYS 114  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

**PHYS 116 - Principles of Physics III**

Waves and sound; geometrical and physical optics; relativity and modern physics. Lab.

**Prerequisites & Notes:** PHYS 115  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

**PHYS 161 - Physics with Calculus I**

Kinematics and dynamics of particles; work and energy; gravitation; collisions and conservation of momentum. Includes lab.

**Prerequisites & Notes:** MATH 124 or concurrent OR MATH 134 or concurrent OR MATH 138 or concurrent.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

**PHYS 162 - Physics with Calculus II**

Electrostatics; magnetic fields of steady currents; time-varying electric and magnetic fields; DC and AC circuits; electromagnetic waves. Includes labs.

**Prerequisites & Notes:** PHYS 161; MATH 124 or MATH 134 and MATH 125 or MATH 135 or concurrent, or MATH 138.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

**PHYS 163 - Physics with Calculus III**

Rotations and oscillations, waves in elastic media, superposition, interference and standing waves; sound waves and electromagnetic waves; geometric optics including reflection and refraction; interference and diffraction of light. Includes labs.

**Prerequisites & Notes:** PHYS 162; MATH 124 or MATH 134 or MATH 134 and MATH 135 or MATH 138  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

**PHYS 190 - Exploring Physics and Astronomy**

Seminar for students interested in majoring in Physics. Current topics and trends in physics, with emphasis on research opportunities for undergraduates. S/U grading.

**Prerequisites & Notes:** PHYS 161 or concurrent OR PHYS 162 or concurrent.  
**Credits:** 1  
**Grade Mode:** S/U

**PHYS 224 - Modern Physics I**

Special relativity, quantization of charge, matter waves, bound and unbound states in quantum physics.

**Prerequisites & Notes:** PHYS 163; PHYS 226; MATH 203 or MATH 204.  
**Credits:** 3  
**Grade Mode:** Letter

**PHYS 225 - Modern Physics II**

Schrodinger equation in three dimensions, spin and atomic physics, statistical physics, molecules and solids.

**Prerequisites & Notes:** PHYS 224; MATH 303 or MATH 331  
**Credits:** 3  
**Grade Mode:** Letter

**PHYS 226 - Physics with Calculus IV**

Thermodynamics, Physics of continuous media, Introduction to statistical mechanics. Includes lab.

**Prerequisites & Notes:** PHYS 163; MATH 124 and MATH 125 or MATH 134 and MATH 135 or MATH 138  
**Credits:** 4  
**Grade Mode:** Letter

**PHYS 291 - Independent Research**

## PHYSICS AND ASTRONOMY

Individual research under faculty supervision. Written report required. Repeatable for credit with no limit. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 1-3  
**Grade Mode:** S/U

### PHYS 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### PHYS 322 - Fundamentals of Electronics

AC/DC circuit theory, transistor and op-amp circuit design, digital basics and introduction to LabView programming. Includes lab.

**Prerequisites & Notes:** PHYS 163; PHYS 326; CSCI 140 or CSCI 141.  
**Credits:** 4  
**Grade Mode:** Letter

### PHYS 326 - Tools and Data Analysis

Introduction to error analysis, data handling, and numerical solution methods in physics using computer programs such as KaleidaGraph, Mathematica, and LabView. Lecture and computer lab.

**Prerequisites & Notes:** PHYS 163; MATH 203 or MATH 204; MATH 224; CSCI 140 or CSCI 141.  
**Credits:** 3  
**Grade Mode:** Letter

### PHYS 335 - Statistical and Thermal Physics

Foundations of macroscopic thermodynamics, statistical description of physical systems, laws of thermodynamics, statistical ensemble theory and applications.

**Prerequisites & Notes:** PHYS 225; PHYS 226; MATH 224; and Phase II Physics BS majors.  
**Credits:** 4  
**Grade Mode:** Letter

### PHYS 339 - Optics

Topics in modern physical and geometrical optics including general solutions to the 3-D wave equation, analytical ray tracing, polarized light,

interferometric techniques, and introduction to lasers.

**Prerequisites & Notes:** PHYS 163; PHYS 368  
**Credits:** 3  
**Grade Mode:** Letter

### PHYS 350 - Engineering Thermodynamics

Introduction to concepts and applications of thermodynamics, including the laws of thermodynamics, processes, and cycles. Applications to ideal gases, heat engines, thermal expansion. Heat transfer.

**Prerequisites & Notes:** PHYS 161; MATH 124  
**Credits:** 3  
**Grade Mode:** Letter

### PHYS 363 - Classical Mechanics

Newtonian mechanics; general motion of a particle in three dimensions; Lagrangian mechanics; canonical coordinates; particle systems and rigid bodies; gravitation and Newtonian cosmology; nonlinear mechanics and chaos.

**Prerequisites & Notes:** PHYS 163; PHYS 326; PHYS 225 or GEOL 352; MATH 303, or MATH 304 and MATH 331; and Phase II Physics BS majors or Phase II Geophysics BS majors.  
**Credits:** 4  
**Grade Mode:** Letter

### PHYS 368 - Electromagnetism I

Vector calculus, Green's and Stokes' theorems; static electric and magnetic field laws; boundary-value problems; Lorentz force; polarization and magnetization in materials.

**Prerequisites & Notes:** PHYS 163; MATH 224; MATH 303, or MATH 304 and MATH 331.  
**Credits:** 4  
**Grade Mode:** Letter

### PHYS 369 - Electromagnetism II

Electrodynamics; Maxwell's equations; plane electromagnetic waves in free space; dielectrics and conductors; reflection and refraction at a plane boundary; electromagnetic radiation; relativistic dynamics.

**Prerequisites & Notes:** PHYS 368; MATH 303.  
**Credits:** 3  
**Grade Mode:** Letter

### PHYS 391 - Junior Lab

Selected experiments in modern physics, optics, astronomy, condensed matter physics and



materials science. Graded work includes lab notebook, oral and written presentations, and exams. Repeatable once.

**Prerequisites & Notes:** PHYS 225; PHYS 322; PHYS 326.

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### **PHYS 419 - Professional Writing for Physicists**

Presentation of scientific research in written form; abstracts, project reports, and documentation; elements of successful posters; proposals and professional critique.

**Prerequisites & Notes:** PHYS 391; PHYS 455 or concurrent, or GEOL 352.

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 444 - Special Topics in Physics**

Introduction to a special topic, current research, or application in physics. Repeatable up to two times for credit.

**Prerequisites & Notes:** PHYS 363 and PHYS 368.

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 455 - Quantum Mechanics I**

Review of the Schrodinger equation with applications to simple potentials, introduction to Dirac notation, generalized function spaces, and general uncertainty relations. The Schrodinger equation in three dimensions, including the hydrogen atom, angular momentum, and spin. Introduction to identical particles.

**Prerequisites & Notes:** PHYS 225; PHYS 363; PHYS 369; MATH 303; or MATH 304 and MATH 331.

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 456 - Quantum Mechanics II**

Introduction to perturbation theory (including time independent, degenerate, and time dependent), the variational principle and WKB approximations. Introduction to scattering theory. Special topics such as Bell's theorem, relativistic quantum mechanics.

**Prerequisites & Notes:** PHYS 455

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 475 - Physics of Solids and Materials I**

Structure and properties of materials including crystallography, symmetry, bonding-related properties, electronic structure, phase diagrams, surfaces, semiconductors, metals.

**Prerequisites & Notes:** PHYS 225 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 476 - Physics of Solids and Materials II**

Application and investigation of materials including amorphous, liquid crystal, magnetic, porous and novel materials, lasers, photo detectors, optical fibers, microscopy, spectroscopy.

**Prerequisites & Notes:** PHYS 475

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 485 - Mathematical Physics**

Fourier transforms; Laplace transforms; orthogonal functions and boundary value problems; series expansions; rotations and tensors; complex integration.

**Prerequisites & Notes:** PHYS 363 or concurrent; MATH 224; MATH 303, or MATH 304 and MATH 331.

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 486 - Computational Physics**

Introduction to methods of solving physics problems with computers. Topics include molecular dynamics, electronic states, calculation of classical electromagnetic fields and orbits, and Monte Carlo methods applied to statistical mechanics and quantum systems.

**Prerequisites & Notes:** PHYS 326; PHYS 363; PHYS 369; CSCI 140 or CSCI 141.

**Credits:** 3

**Grade Mode:** Letter

#### **PHYS 491 - Independent Research**

## PHYSICS AND ASTRONOMY

Individual research under faculty supervision.  
Written report required. Repeatable for credit. S/U  
grading.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1-3

**Grade Mode:** S/U

# Science Education

## Introduction

The Science, Mathematics and Technology Education Program is a visionary and practical program designed to enrich the training and education of K-12 pre-service and in-service teachers and, through them, their students. From a collaboration of the disciplines of education, chemistry, geology, biology, physics/astronomy, mathematics, and engineering, the Science, Mathematics and Technology Education Program (SMATE) offers an opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline.

The General Science major is offered at three levels: Elementary for students intending to teach grades K-8, Middle School for students intending to teach science in grades 4-9, and Secondary for students intending to teach science in middle or high school. Students planning to be teachers and major in one of the sciences or mathematics should consult with the appropriate science education advisor in the appropriate science or mathematics department or with the director of science education regarding the General Science major.

For further information and advisement, consult with an advisor or the director of Science, Mathematics and Technology Education, Dr. Edward Geary, phone 360-650-3637, Science, Math and Technology Education Building, SL 250D, e-mail [Edward.Geary@wwu.edu](mailto:Edward.Geary@wwu.edu) or Lori Torres, Program Manager, SL 220, phone 360.660.7605, e-mail [Lori.Torres@wwu.edu](mailto:Lori.Torres@wwu.edu).

## Faculty

**EDWARD E. GEARY** (2013) SMATE Director and Professor. BS, Stanford University; MS, PhD, Cornell University.

**ALEJANDRO ACEVEDO-GUTIÉRREZ** (2002) Associate Professor. BSc, Universidad Autonoma de Baja California Sur, Mexico; PhD, Texas A&M University.

**EMILY BORDA** (2005) Associate Professor. BS-Chemistry, Gonzaga University; MEd-Educational Leadership and Policy, MS, PhD-Chemistry, University of Washington.

**ANDREW BOUDREAU** (2008) Associate Professor, BS, University of California Berkeley (1993), PhD, University of Washington.

**DONALD BURGESS** (2004) Associate Professor.

MS Education-Biology, State University of New York, Cortland.

**SUSAN M. DEBARI** (1998) Professor. BA, Cornell University; PhD, Stanford University.

**DEBORAH A. DONOVAN** (1998) Professor. BSc, MSc, University of California-Davis; PhD, University of British Columbia.

**SCOTT R. LINNEMAN** (2000) Professor. BA, Carleton College; PhD, University of Wyoming.

**CHRIS OHANA** (1999) Associate Professor. BA, University of California- Berkeley; MA, University of Oregon; PhD, Iowa State University.

## Other Departmental Information

### Facilities and Resources

Pivotal to this program is a facility designed to accommodate this academic vision. The 19,000 square foot facility contains our state-of-the-art classrooms and laboratories, one each specifically tailored to elementary and secondary education. They surround a Learning Resource Center with more than 15,000 books on standards, assessment, curriculum and activities. It also contains collections of classic and current materials, laboratory resources, educational technology, and expertise that students, faculty, the local community and teachers from around the state can draw upon either on site or in the schools. In both its approach and facilities, the SMATE Program is a national model for teacher training in undergraduate mathematics, science and technology education. Additionally, the SMATE faculty are engaged in a number of research projects that connect the preservice program to the K-12 schools and offer students the opportunity to gain unique research and field experiences. Numerous scholarships are available each year for future teachers of science.

To find out more about the Irwin L. Slesnick STEM Education Resource Center and SMATE facilities, contact Jamie Harrington, assistant director of the SMATE program, at 360-650-3647, by e-mail at [Jamie.Harrington@wwu.edu](mailto:Jamie.Harrington@wwu.edu), visit the website, [www.smate.wwu.edu/smate/](http://www.smate.wwu.edu/smate/), or stop by the Science, Math and Technology Education Building, Science Lecture 220.

### Graduate Study

For a concentration leading to a Master of Education degree in natural science/science education see the Graduate School section of this catalog.

## Bachelor of Arts in Education

### General Science — Elementary, BAE

Department of Science Education, College of Science and Engineering

**51-52 credits**

#### Introduction

The Science, Mathematics and Technology Education Program (SMATE) is a visionary and practical program designed to enrich the training and education of K-12 pre-service teachers and, through them, their students. From a collaboration of the disciplines, Chemistry, Geology, Biology, Physics/ Astronomy, Mathematics, and Engineering, the Science, Mathematics and Technology Education Program offers an opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline.

This program is designed to prepare future teachers at the elementary and middle school level with an emphasis in Science. This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

#### Why Consider a General Science - Elementary Major?

If you want a broad base of knowledge in the field of science to prepare you for teaching at the elementary level, this major will provide it. You will take a range of introductory courses from different areas of science, including Biology, Chemistry, Physics and Geology. Other Science majors focus on a single subject such as Biology or Chemistry (see WWU Catalog).

Completion of this program results in a highly qualified status for elementary or middle school science under the federal NCLB guidelines.

#### Contact Information

##### Director and Advisor

Edward Geary  
Science, Mathematics  
& Technology Education 250D  
360-650-3637  
Edward.Geary@wwu.edu

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
wce.wwu.edu/admission

##### General Science Program Manager

Lori Torres  
Science, Mathematics &  
Technology Education 220  
360-650-7605  
Lori.Torres@wwu.edu

##### Elementary Education

##### Professional Program Information

Miller Hall 300  
360-650-3336  
wce.wwu.edu/eled/elementary-education

##### Elementary Education Program Manager

Miller Hall 301D  
360-650-7948

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. It does not result in a science endorsement. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

## Requirements

- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- GEOL 211A - Physical Geology Review
- GEOL 212 - Historical Geology
- GEOL 311 - Earth Materials
- MATH 114 - Precalculus I
- SCED 201 - Matter and Energy in Physical Systems
- SCED 202 - Matter and Energy in Earth Systems
- SCED 203 - Matter and Energy in Life Systems
- SCED 204 - Matter and Energy in Chemical Systems
- SCED 492 - Field Experience in Middle School Science
- One course from:
  - PHYS 101 - Physics Analysis
  - PHYS 104 - Physics Applications

## Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators

## SCIENCE EDUCATION

THTR 398 - Integrated Arts for Elementary Educators

☐ One course from:

ART 380 - Art Educating the Child

DNC 433 - Creative Movement for Educators With Lab

MUS 361 - Music for Elementary Teachers

THTR 350 - Theatre for Youth

THTR 351 - Creative Pedagogy

☐ ELED 425 - Social Studies for the Elementary School

☐ ELED 470 - Developing Teaching

☐ ELED 471 - Documenting Teaching

☐ ELED 480 - Literacy: Beginning Communicators

☐ ELED 481 - Literacy: Fluent Communicators

☐ ELED 491 - September Experience

☐ ELED 492 - Practicum: Experience in Literacy Methods

☐ ELED 494 - Internship - Elementary

☐ HLED 455 - Health Education Grades K-8

☐ MATH 381 - Teaching K-8 Mathematics I

☐ MATH 382 - Teaching K-8 Mathematics II

☐ MATH 383 - Teaching K-8 Mathematics III

☐ MATH 491 - Internship Seminar - Teaching K-8 Mathematics

☐ PE 345 - Physical Education for Elementary School

☐ SCED 480 - Science Methods and Curriculum for the Elementary School

☐ SCED 490 - Laboratory/Field Experience in Elementary Science

### General Science — Middle Level, BAE

Department of Science Education, College of Science and Engineering

**87-88 credits**

#### Introduction

The Science, Mathematics and Technology Education Program is a visionary and practical program designed to enrich the training and education of K-12 pre-service teachers and, through them, their students. From a collaboration of the disciplines of Chemistry, Geology, Biology, Physics/ Astronomy, Mathematics, and Engineering, the Science, Mathematics and Technology Education Program (SMATE) offers an opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and leads to a middle level science endorsement. It must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a General Science - Middle Level Major?

If you want a broad base of knowledge in the field of science to prepare you for teaching any science subject at the secondary level, this major will provide it. You will take a range of introductory courses from different areas of science, including Biology, Chemistry, Physics and Geology.

#### Contact Information

##### General Science Education

##### Advisor

Edward Geary

Science, Mathematics

& Technology Sciences 250D

360-650-3637

Edward.Geary@wwu.edu

##### Elementary Educational Professional Program

##### General Science Education

##### Program Manager

Lori Torres

Science, Mathematics

& Technology Sciences 220

360-650-7605

Lori.Torres@wwu.edu

##### Teacher Education Admissions

Miller Hall 150

##### Elementary Education

**Information**

Miller Hall 300  
360-650-3336  
wce.wvu.edu/eled/  
elementary-education

360-650-3313

wce.wvu.edu/admission

**Program  
Manager**

Miller Hall 301D  
360-650-7948

**Sample Careers**

Secondary Education Teacher

**Major/Career Resources**

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

This major must be accompanied by the professional preparation program in elementary education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

**Grade Requirements**

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

**Requirements**

- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- GEOL 211 - Physical Geology
- GEOL 212 - Historical Geology
- GEOL 252 - The Earth and Its Weather
- MATH 115 - Precalculus II
- PHYS 101 - Physics Analysis
- PHYS 102 - Physics and Contemporary Issues
- PHYS 104 - Physics Applications
- SCED 201 - Matter and Energy in Physical Systems
- SCED 202 - Matter and Energy in Earth Systems
- SCED 203 - Matter and Energy in Life Systems
- SCED 204 - Matter and Energy in Chemical Systems
- SCED 370 - Science and Society
- SEC 450 - Introduction to Middle Schools
- Plus 1 course at the 300-level for 4 credits

**Additional Requirements****Elementary Education Professional Program Requirements (100-103 credits)**

Department of Elementary Education, Woodring College of Education

# SCIENCE EDUCATION

## Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

## Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## General Science — Secondary, BAE

Department of Science Education, College of Science and Engineering



**90-112 credits****Introduction**

The Science, Mathematics and Technology Education Program is a visionary and practical program designed to enrich the training and education of K-12 pre-service teachers and, through them, their students. From a collaboration of the disciplines of Chemistry, Geology, Biology, Physics/ Astronomy, Mathematics, and Engineering, the Science, Mathematics and Technology Education Program (SMATE) offers an opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline.

This program is designed to prepare future teachers at the middle school and secondary level with an emphasis in Science. This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education.

**Why Consider a General Science - Secondary Major?**

If you want a broad base of knowledge in the field of science to prepare you for teaching any science subject at the secondary level, this major will provide it. You will take a range of introductory courses from different areas of science, including Biology, Chemistry, Physics and Geology, along with an in-depth on a single subject such as Biology or Chemistry.

Contact Information		
<b>General Science Education Advisor</b> Edward Geary Science, Mathematics & Technology Education 250D 360-650-3637 Edward.Geary@wwu.edu	<b>General Science Program Manager</b> Lori Torres Science, Mathematics & Technology Education 220 360-650-7605 Lori.Torres@wwu.edu	
<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 wce.wwu.edu/admissions/secondary-education	<b>Secondary Education Program Coordinator</b> Christina Carlson Miller Hall 401A 360-650-3327 Christina.Carlson@wwu.edu	<b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3347 Janna.Cecka@wwu.edu

**Sample Careers**

Secondary Education Teacher

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admissions and Declaration Process):**

This major must be accompanied by the professional preparation program in secondary education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

**Grade Requirements**

A grade of C (2.0) or better is required for courses in the secondary education professional program and all courses required for the endorsement.

**Requirements**

- MATH 240 - Introduction to Statistics
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology

## SCIENCE EDUCATION

- BIOL 206 - Introduction to Organismal Biology
- GEOL 211 - Physical Geology
- GEOL 212 - Historical Geology
- SCED 370 - Science and Society or equivalent
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- Electives in a single scientific discipline, under advisement to meet state endorsement standards for that discipline: 21-42 additional credits from single science discipline.

### Additional Requirements

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Master of Education

### Natural Science/Science Education, Non-Thesis, MEd (In Moratorium)

College of Science and Engineering

This program is not currently accepting new students for the 2011-2012 Academic Year. For further information, please contact Science, Mathematics and Technology Education Department, Western Washington University, 516 High Street, SL 220, Bellingham WA 98225-9155, 360-650-7605.

### Graduate Faculty

**Acevedo-Gutierrez, Alejandro**, PhD, biology.

**DeBari, Susan**, PhD, geology.

**Donovan, Deborah**, PhD, biology.

**Geary, Edward**, PhD, geology.

**Linneman, Scott**, PhD, geology.  
**Ohana, Chris**, PhD, elementary education.

Program Advisor: Dr. Edward Geary

## Goals

This program is focused on helping practicing teachers of science at all levels P-12 advance their careers by:

- Improving their instruction through advanced study, research and field work;
- Gaining familiarity with current research on student learning and new developments in curriculum assessment; and developing their leadership skills.

## Prerequisites

Students applying for admission are normally expected to have a teaching certificate and to have completed at least one year of teaching in the P-12 system prior to entering the program. Elementary endorsed teachers are expected to have completed at least one course in each of the science areas (biology, chemistry, earth science, and physics). Secondary teachers are expected to have an undergraduate major or minor and a subject endorsement in their area of specialization. (General science teachers should have an endorsement in one or more of the natural sciences. A major in a science field is highly desirable.)

## Application Information

In addition to the Graduate School-required materials for admission, each student is required to take the Graduate Record Exam (GRE), and submit a résumé and a statement of personal career goals and reasons for seeking admissions to the program. An on-campus interview may be requested by the program faculty.

## Program Requirements (48 credits)

The Non-Thesis option involves an action research project culminating in an oral presentation and written summary.

### Comprehensive assessment

Student achievement in the program will be assessed by faculty through the action research proposal, summary document and presentation.

### Core requirements (22 credits)

- EDUC 501 - Introduction to Educational Research
- EDUC 506
- I T 503 - Designing Instruction and Selecting Technologies for Learning
- SCED 501 - Advanced Studies in Science Education
- SCED 513 - Science Curriculum Grades K-12
- SCED 515 - Assessment for Science Understanding

### Focus (electives) under advisement (20 credits)

Emphasis in specific disciplines, pedagogy, assessment or science education research. At least 11 credits must be taken at the 500 level.

### Non-Thesis Research Project (6 credits)

- SCED 598 - Research Project

## SCIENCE EDUCATION

### Natural Science/Science Education, Thesis, MEd (In Moratorium)

College of Science and Engineering

This program is not currently accepting new students for the 2011-2012 Academic Year. For further information, please contact Science, Mathematics and Technology Education Department, Western Washington University, 516 High Street, SL 220, Bellingham WA 98225-9155, 360-650-7605.

#### Graduate Faculty

**Acevedo-Gutierrez, Alejandro**, PhD, biology.

**DeBari, Susan**, PhD, geology.

**Donovan, Deborah**, PhD, biology.

**Geary, Edward**, PhD, geology.

**Linneman, Scott**, PhD, geology.

**Miles, John**, PhD, Huxley College of the Environment.

**Myers, O. Eugene**, PhD, Huxley College of the Environment.

**Ohana, Chris**, PhD, elementary education.

Program Advisor: Dr. Edward Geary

#### Goals

This program is focused on helping practicing teachers of science at all levels P-12 advance their careers by:

- Improving their instruction through advanced study, research and field work;
- Gaining familiarity with current research on student learning and new developments in curriculum assessment; and developing their leadership skills.

#### Prerequisites

Students applying for admission are normally expected to have a teaching certificate and to have completed at least one year of teaching in the P-12 system prior to entering the program. Elementary endorsed teachers are expected to have completed at least one course in each of the science areas (biology, chemistry, earth science, and physics). Secondary teachers are expected to have an undergraduate major or minor and a subject endorsement in their area of specialization. (General science teachers should have an endorsement in one or more of the natural sciences. A major in a science field is highly desirable.)

#### Application Information

In addition to the Graduate School-required materials for admission, each student is required to take the Graduate Record Exam (GRE), and submit a résumé and a statement of personal career goals and reasons for seeking admissions to the program. An on-campus interview may be requested by the program faculty.

#### Program Requirements (48 credits)

This option requires students to submit a proposal for a Thesis (690a) or a Field Project (690b) for approval by the student's committee prior to registering for 690a or b. A thesis involves original research. A field project is a formal study carried out in a school setting. Both require the preparation of a formal document.

#### Program Requirements

##### Comprehensive assessment

Student achievement in the program will be assessed by faculty through either the thesis (field project) proposal or the thesis (field project) and the oral defense (option I); or the action research proposal, summary document and presentation (option II).

##### Core requirements [22 credits]

- ❑ EDUC 501 - Introduction to Educational Research

- ❑ EDUC 506
- ❑ I T 503 - Designing Instruction and Selecting Technologies for Learning
- ❑ SCED 501 - Advanced Studies in Science Education
- ❑ SCED 513 - Science Curriculum Grades K-12
- ❑ SCED 515 - Assessment for Science Understanding

Focus (electives) under advisement [20 credits]

❑ Emphasis in specific disciplines, pedagogy, assessment or science education research. At least 11 credits must be taken at the 500 level.

Thesis [6-12 credits]

- ❑ Thesis or Field Project
  - SCED 690A - Research
  - SCED 690B - Field Project

## Science Education Courses

### SCED 201 - Matter and Energy in Physical Systems

This course is the first in a 4 course series designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in physical science.

**Prerequisites & Notes:** MATH 112 or higher.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### SCED 202 - Matter and Energy in Earth Systems

This course is one of a 4 course series designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in earth science.

**Prerequisites & Notes:** MATH 112, SCED 201 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### SCED 203 - Matter and Energy in Life Systems

This course is one of a 4 course series designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in life science.

**Prerequisites & Notes:** MATH 112 or higher,

SCED 201 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### SCED 204 - Matter and Energy in Chemical Systems

This course is one of a 4 course series designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in chemical science.

**Prerequisites & Notes:** SCED 201 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### SCED 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### SCED 370 - Science and Society

An in-depth exploration of selected contemporary issues such as global climate change, energy crisis, genetically modified foods, and large-scale extinction of species. The course also explores what constitutes science and pseudo science, looking specifically at 'creation science.'

**Prerequisites & Notes:** Completion of science

## SCIENCE EDUCATION

GURs and completion 90 credits or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **SCED 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **SCED 401 - Reading in Science Education**

In-depth study of science education literature with a view to writing one short and one extensive report, plus making two short presentations to class peers based on these reports.

**Prerequisites & Notes:** SCED 491 or concurrent

**Credits:** 1

**Grade Mode:** Letter

### **SCED 417 - Special Topics in Science Education**

Topics vary.

**Prerequisites & Notes:** instr perm

**Credits:** 1

**Grade Mode:** S/U

### **SCED 445W - Outstanding Sci Ed Part 3**

Topics vary.

**Credits:** 1

**Grade Mode:** S/U

### **SCED 480 - Science Methods and Curriculum for the Elementary School**

Classroom/laboratory study of theory, curriculum, science content and processes and effective teaching methods in the context of national and Washington state standards in science and with activities appropriate for the elementary classroom.

**Prerequisites & Notes:** Completion of Natural Science GURs, including SCED 201 or permission of instructor; SCED 202, SCED 203, and SCED 204 are highly desired GURs; ELED 370 or ELED 372 or SPED 420.

**Credits:** 5

**Grade Mode:** Letter

### **SCED 481 - Fundamentals of Teaching Science**

Study of key topics related to teaching science including nature of science, science standards, constructivism, preconceptions, and assessment.

**Prerequisites & Notes:** CHEM 123 or CHEM 225 or GEOL 212 or BIOL 206 or PHYS 163.

**Credits:** 2

**Grade Mode:** Letter

### **SCED 490 - Laboratory/Field Experience in Elementary Science**

A field-based experience in which WWU students teach science within their internship year. Includes bi-weekly seminar.

**Prerequisites & Notes:** SCED 480

**Credits:** 3

**Grade Mode:** Letter

### **SCED 491 - Methods in Secondary Education for Science Teachers**

Study of literature, curriculum and teaching strategies in life, earth and physical sciences for grades 4-12, plus peer teaching and school observations.

**Prerequisites & Notes:** Admission to the secondary teaching program and a major or concentration in natural sciences; SEC 431 or SEC 532; SCED 481.

**Credits:** 5

**Grade Mode:** Letter

### **SCED 492 - Field Experience in Middle School Science**

A field-based experience in which WWU students teach science with experience mentor teachers in local middle schools. Includes weekly seminar.

**Prerequisites & Notes:** SCED 480 and SCED 490 for General Science majors; or permission of instructor for Secondary Science majors.

**Credits:** 3

**Grade Mode:** Letter

### **SCED 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**SCED 501 - Advanced Studies in Science Education**

A critical study of research and developments related to science education.

**Prerequisites & Notes:** teaching experience

**Credits:** 4

**Grade Mode:** Letter

**SCED 511 - Internship in Science Education**

Assisting with the teaching of an on-campus science methods course for pre-service elementary school teachers. S/U grading.

**Prerequisites & Notes:** instructor permission

**Credits:** 3

**Grade Mode:** S/U

**SCED 512 - In-Service Workshops in Science Education**

Planning and implementing a series of not less than three in-service workshops in elementary school science. Repeatable for elective credit. S/U grading.

**Credits:** 3

**Grade Mode:** S/U

**SCED 513 - Science Curriculum Grades K-12**

Examination of science curricula for grades K-12 with major emphasis on the elementary grades as a basis for selection of a science curriculum and teacher's guide for use in local school systems.

**Prerequisites & Notes:** teaching experience or instructor permission

**Credits:** 4

**Grade Mode:** Letter

**SCED 514 - Seminar in Elementary Science Education**

Repeatable to a maximum of 3 cr.

**Prerequisites & Notes:** instructor permission

**Credits:** 1-3

**Grade Mode:** Letter

**SCED 515 - Assessment for Science Understanding**

A seminar addressing the development of a variety of formative and summative assessment techniques and exploring psychometric properties of science items and tests for practicing science teachers.

**Prerequisites & Notes:** SCED 501, EDU 501.

**Credits:** 4

**Grade Mode:** Letter

**SCED 517L - Implementing and Supporting Science Professional Learning Communities**

This-year long seminar course will provide teachers and principals opportunities for ongoing learning and reflection on the challenges they face in supporting and sustaining effective professional learning communities.

**Credits:** 3

**Grade Mode:** S/U

**SCED 580 - Special Problems in Science Teaching in the Elementary School**

Problems related to science instruction and curriculum. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** teaching experience or instructor permission

**Credits:** 2-5

**Grade Mode:** Letter

**SCED 582 - Special Topics in the Physical Sciences for Elementary School Teachers**

In-depth study of topics in the physical sciences most appropriate for instruction in the elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** SCED 390, SCED 391 or equivalent

**Credits:** 4

**Grade Mode:** Letter

**SCED 583 - Special Topics in the Biological Sciences for Elementary School Teachers**

In-depth study of topics in the biological sciences most appropriate for instruction in elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** SCED 390, SCED 391 or equivalent

**Credits:** 4

**Grade Mode:** Letter

**SCED 584 - Special Topics in the Earth Sciences for Elementary School Teachers**

In-depth study of topics in earth sciences most appropriate for instruction in the elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** SCED 390, SCED 391 or equivalent

## SCIENCE EDUCATION

**Credits:** 4

**Grade Mode:** Letter

### **SCED 584A - Earth Science for Elementary Teachers**

In-depth study of topics in earth sciences most appropriate for instruction in the elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Credits:** 4

**Grade Mode:** Letter

### **SCED 590 - Special Problems in Science Teaching in the Junior and Senior High School**

Problems related to science instruction and curriculum. Repeatable with no maximum.

**Prerequisites & Notes:** teaching experience or instructor permission

**Credits:** 2-5

**Grade Mode:** Letter

### **SCED 590S - Special Problems in Science Teaching in the Junior and Senior High School**

Problems related to science instruction and curriculum. Repeatable with no maximum.

**Prerequisites & Notes:** teaching experience or instructor permission

**Credits:** 2

**Grade Mode:** Letter

### **SCED 592 - Special Topics in the Physical Sciences**

Content topics in chemistry and physics of special interest to secondary teachers. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** secondary method course; admission to natural science MEd program; completion of undergraduate courses required for admission

**Credits:** 4

**Grade Mode:** Letter

### **SCED 593 - Special Topics in the Biological Sciences**

Content topics in biology of special interest to the secondary teacher. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** secondary method course; admission to natural science Med program; completion of undergraduate courses required for

admission

**Credits:** 4

**Grade Mode:** Letter

### **SCED 594 - Special Topics in the Earth Sciences**

Content topics in geology and related fields of special interest to secondary teachers. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** secondary method course; admission to natural science Med program; completion of undergraduate courses required for admission

**Credits:** 4

**Grade Mode:** Letter

### **SCED 598 - Research Project**

Research in fields of biology, chemistry, earth science, general science, physical science, physics or education for non-thesis option.

**Prerequisites & Notes:** Admission to MEd natural sciences program and completion of 15 credits of 500-level courses including EDU 501, EDU 506 and SCED 501.

**Credits:** 6

**Grade Mode:** Letter

### **SCED 690A - Research**

Restricted to thesis-related research. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to program

**Credits:** 1-12

**Grade Mode:** Letter

### **SCED 690B - Field Project**

Field project under the direction of a faculty committee. A portion of the field project normally requires work off campus. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** graduate committee approval

**Credits:** 1-12

**Grade Mode:** S/U



# Fairhaven College of Interdisciplinary Studies

## Introduction

Dr. Jack Herring, Dean

### A College Within the University

Founded in 1967, Fairhaven College of Interdisciplinary Studies is an undergraduate division of Western Washington University. Its purpose is to offer students the opportunity to take an uncommon degree of responsibility for the structure and content of their own education where students design their own degree programs by drawing on the resources of a larger University. The college offers training in writing and research, critical thought and creative expression, independent judgment and scholarship, self-evaluation and narrative assessment.

As a learning community, Fairhaven is defined by five attributes: (1) interdisciplinary study, (2) student designed studies and evaluations of learning, (3) examination of issues arising from a diverse society, (4) development of leadership and a sense of social responsibility, and (5) curricular, instructional and evaluative innovations.

At Fairhaven, students are challenged to bring what they learn to bear on human concerns and crucial real-world problems, to experiment, to discover and to act. This style of education supports the development of certain values, virtues and skills: self-discipline, resourcefulness, initiative, self-development, adaptability, reasonable risk-taking, leadership, sensitivity to injustice, and respect for persons. Fairhaven courses prepare students to listen carefully and engage respectfully in discussion, to value and respect different world views and to appreciate multiple voices reflecting the diversity of experiences in our society.

Fairhaven College is committed to interdisciplinary study and serving a diverse student body in terms of age, ethnic background, academic interest, and life experience. The College is committed to a gender-conscious and multicultural approach to topics, resources and classroom practices. Courses and other learning experiences provide an opportunity to examine the impacts and contemporary and historical roots of race, class and gender relations.

Fairhaven College's role in the University is not only to provide a learning environment for students interested in self-designed study and interdisciplinary learning, but also to help the University ask questions about teaching and learning. Members of the Fairhaven community collaborate with and learn from colleagues in other colleges both within and outside of Western.

Fairhaven College also administers the curriculum of the **American Cultural Studies Program**, which offers significant depth in learning about current and historical topics in the diverse tapestry of people who make up the United States.

### A Structure for Learning

The structure of learning at Fairhaven College consists of close working relationships between teachers and students; we are known for our practice of student-centered learning. Classes are small and the emphasis is on open discussion and the exchange of ideas. Our classes are interactive; we believe every student is essential to the discovery and creation of knowledge and, hence, to unleashing the full value of an undergraduate education as a tool for enhancing the lives of individuals, communities, and the world, as creative, actively engaged citizens.

In any given quarter, students may select classes offered across the University and/or design independent study projects in consultation with their faculty advisor. Students are encouraged to formulate and carry out independent research projects. Faculty members sponsor and monitor these projects and help students develop the resources necessary to complete them. Field work, practica, internships, and study abroad can also form important components of a Fairhaven education. Students are encouraged to work outside their comfort zone and to find ways to connect their learning with challenges and opportunities in the real world, ways to understand relationships of thought and action, theory and expertise, ways to cultivate opportunities for applying what they learn through campus and community volunteer activities, and through internships.

Collaborative learning is often used together with independent research. Narrative assessments, including a student self-evaluation and written responses from faculty replace letter grades, promoting a more deeply reflective experience and encouraging a student to take full ownership of her/his/their education.

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

## Fairhaven College Learning Goals and Assessment

A culture and pedagogy of self-assessment and reflection have been significant features of teaching and learning at Fairhaven College since its founding as an experimental college. Assessment is valued as an essential part of the learning process.

Students assess their own learning in each course and are also asked to assess the course and the faculty. Students assess their writing skills in the development of a writing plan, and later in their education revisit that plan when they create their college writing portfolio. A cumulative self-assessment, the Summary and Evaluation, is required of all students prior to graduation.

Faculty provide individual narrative assessment of students in each course they teach, and provide

on-going assessment of student growth in the advising process. Faculty regularly revisit and respond to outcomes of their teaching through reviewing student self-evaluations, faculty and course evaluations. Faculty peer review of teaching practices happen regularly through team teaching, shared concentration committee mentorship of students, shared advising (often in student Transition conferences) and collaborative curriculum review and college governance.

Beyond supporting students in their individualized learning goals, Fairhaven College has also established a set of goals that we aspire all students to achieve by the time they graduate. These goals are deeply woven into the structure of the core curriculum and are regularly assessed to determine how the core curriculum can be improved.

## Fairhaven College Learning Goals

Upon graduation, Fairhaven College students will be able to:
Consider and listen openly to perspectives that are different from their own as they investigate complex issues.
Recognize and trace the development of their own ideas, skills, perspectives and learning processes.
Demonstrate the ability to imagine, problem-solve, and take creative risks.
Articulate the ways in which systems of power, privilege, and oppression shape their experiences as individuals and members of communities.
Develop a sense of personal agency for creating positive social and ecological change within a multicultural and global context.
Effectively communicate complex ideas orally and in writing.
Apply quantitative reasoning to the construction, communication and evaluation of arguments.

## Fairhaven Core Curriculum

Fairhaven students complete Fairhaven's core curriculum in lieu of the WWU General University Requirements (GUR). A student who leaves Fairhaven for another WWU program must complete the GUR. Fairhaven College also offers the opportunity for self-motivated students who have demonstrated exceptional learning skills to design an individualized alternative to parts of the core curriculum through the use of existing course challenge procedures.

The Fairhaven Core Curriculum includes a series of courses designed to widen students' exposure to various areas of study, to connections among disciplines and to interdisciplinary theory and practice. Its purpose is to help students become perceptive, probing learners who can ask questions and pursue answers with care and confidence. Skills in reading, writing, presentation and analysis

are emphasized. Each course deals with methods of knowing and understanding, themes, modes of creativity and practical applications to be found in each area of study.

Elements of this core contribute to its unique character:

- Courses are conducted in a collaborative seminar format
- Class sizes seldom exceed 20 students
- A strong mentoring/advising relationship is established
- Interdisciplinary studies mirror the shape of complex problems
- Instruction is shared by all Fairhaven faculty members - artists, scientists, philosophers, lawyers, historians, poets,

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

social scientists, anthropologists, psychologists - who adapt the diverse themes of their disciplines to core studies

- Evaluation takes the form of narrative assessment

There are core courses in each of the three curricular stages: **exploratory studies, concentrated studies and advanced studies**, as outlined in the degree-specific requirements. Students need not complete one curricular stage before advancing to the next.

## Exploratory Studies (Stage One)

- FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College
- FAIR 201A - Critical and Reflective Inquiry
- FAIR 202A - Core: Humanities and the Expressive Arts I
- FAIR 203A - Social Relationships and Responsibility: Theories and Critiques
- FAIR 206A - Core: Science and Our Place on the Planet I
- FAIR 305A - Core: Writing and Transition Conference
- One 300-level course in each of the following areas, with the specific course in each area, selected from a listing of approved courses found on Fairhaven College website:

Humanities and the Expressive Arts II  
Society and the Individual II  
Science and Our Place on the Planet II

## Concentrated Studies (Stage Two)

**Option A:** WWU major

**Option B:** Fairhaven Interdisciplinary Concentration:

- FAIR 303A - Core: Interdisciplinary Concentration Seminar
- FAIR 401A - Core: Senior Project

**Option C:** Fairhaven Upside-Down Program

## Advanced Studies (Stage Three)

- FAIR 403A - Core: Advanced Seminar (meets the writing proficiency requirement for graduation)

## Degree Requirements

Requirements for bachelor's degrees awarded by Fairhaven College are as follows:

- Meet the University Degree Requirements
- The Fairhaven Core Curriculum
- An Interdisciplinary Concentration (the individually designed major), OR the Fairhaven Upside-Down Program, OR other WWU departmental major
- Completion of at least 25 credits at Fairhaven
- Completion of at least 50 credits outside of Fairhaven
- Scholarship and credit standards as prescribed by Fairhaven College

Fairhaven College Degree Option	Curriculum Process and Requirements
Interdisciplinary Concentration, BA	Complete all three stages of core curriculum; design an interdisciplinary concentration with a committee and complete specified coursework including FAIR 401A, Senior Project.
Interdisciplinary Concentration with a Law, Diversity & Justice (LDJ) Emphasis, BA	Complete all three stages of core curriculum plus LDJ required coursework; design an interdisciplinary concentration with a strong

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

	interest in law, diversity and access to the legal system for under-served communities and complete FAIR 401A, Senior Project.
Interdisciplinary Concentration, BAE	For students seeking the flexibility interdisciplinary concentration, and wishing to apply their degree in the profession of education. Requirements match BA Interdisciplinary Concentration, plus requirements appropriate for the level of professional certification sought by student and approved through Woodring College of Education.
Fairhaven Upside-Down Program, BA	For transfer students who complete a pre-approved technical 2-year degree from a Washington state college and transfer to Western. Students complete stage and three of the Fairhaven core curriculum and a set of appropriate upper-division coursework to complement their previous academic experiences.
Fairhaven College enrollment and completion of University Major, Degree as specified for that Major (e.g. BA, BS, BFA)	Complete stage one and three of Fairhaven core curriculum and all requirements for major as determined by the relevant Department.

### Fairhaven Grade Requirements

At Fairhaven College of Interdisciplinary Studies, the A-to-F grading system is not used. Classes and studies are taken on a "Satisfactory/Unsatisfactory" basis. Academic credit is granted after requirements have been satisfactorily completed and the student has submitted a written self-evaluation of his or her work to faculty instructors. Faculty respond with a written evaluation of the student's progress. Credit will be entered on Fairhaven students' official transcripts only if they fulfill their academic obligations.

The official transcript, held in the University Registrar's office, lists all Fairhaven and other Western Washington University classes completed. A cumulative GPA is not displayed on the official transcript for Fairhaven students. The student-faculty narrative evaluations are held in the student's permanent academic file and form part of the student's credentials for applying for employment and for graduate programs. For students enrolled in Fairhaven College a complete record of academic achievement includes both the official transcript and an official set of narrative evaluations to supplement this transcript.

Credits attempted but not completed will be recorded in the student's Academic History with an NX. The college does not assign a K grade (incomplete) to Fairhaven students, but instead does not award credit until a class is completed. If a registered class is never completed and no credit is awarded, the incomplete class does not appear on the student's official transcript. An NX, indicating "no credit awarded," will appear in the Grade column of the student's unofficial Academic History. Students receiving an NX may request a Time Extension Contract from the instructor outlining

the terms of work to be completed for the awarding of credit. The maximum deadline for credit to be awarded for an NX class is one year after the quarter of enrollment, pending instructor approval.

Federal regulations require all schools participating in Title IV federal financial aid programs to have a standard of Satisfactory Progress, which applies to all applicants/recipients of financial aid as one determinant of eligibility. Classes receiving an NX will count toward credits attempted in Financial Aid Satisfactory Academic Progress and may affect eligibility for aid.

Fairhaven College follows all other student records policies of Western Washington University found elsewhere in this catalog.

### Special Opportunities

**Independent field studies** abroad or community internships might consume a full quarter's registration. The Adventure Learning Program (ALG) provides opportunities for selected Fairhaven students to spend 10 months immersed in a cultural environment different than their own while engaging in a scholarly project of their own design. In recent years, ALG grant recipients have lived and conducted research in Madagascar, Ethiopia, Kenya, Uganda, South Africa, India, Korea, Thailand, Brazil, and Lebanon.

**Professional Education.** For students wishing to acquire teaching credentials, Western's Woodring College of Education offers a choice of majors — including certain Fairhaven Concentrations — appropriate to public school teaching. Faculty advise students in the construction of their programs and work closely with the College of Education in helping students to complete requirements.

**CIEL Student Exchanges.** Fairhaven College is a member of The Consortium for Innovative Environments in Learning (CIEL), a growing network of distinguished, progressive higher education institutions. Through this network, students at Fairhaven College have the opportunity to spend a quarter or semester on one of the Consortium campuses. Visit [www.Cielearn.org](http://www.Cielearn.org).

Information on these and other special opportunities can be accessed on the Fairhaven College Website or is available at the main Fairhaven office.

### College Admission and Advising

Fairhaven College of Interdisciplinary Studies has selective admission and enrolls first-year students, transfer students, and students from other WWU programs fall, winter, spring and summer quarters. New applicants to Fairhaven and to the University complete the WWU Undergraduate Application (available online or in print form). Indicate interest in Fairhaven College in your application. Send the standard application, transcripts, and required test scores to: Office of Admissions, Western Washington University, Bellingham, WA 98225-9009.

In addition to the WWU application, Fairhaven requests a personal statement, two letters of recommendation and an interview (in person or by telephone). For more information or to make an appointment, please call 360-650-6680.

Students currently enrolled in other University programs may apply to transfer to Fairhaven's program by the quarterly application deadlines. Current WWU students applying to Fairhaven do not need to submit transcript test scores or the WWU Undergraduate Application.

Visitors are welcome, and with advance notice appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

### Advising

Students benefit from high quality advising; extensive and intensive advising is a hallmark of the Fairhaven College learning experience for all its students. All full-time faculty members are academic advisors supported by professional staff, and student peer mentoring. Great thought has been given to the design of advising at Fairhaven – multiple advisors and kinds of advising at multiple points along the path from admission to graduation. We provide an organized sequence of required advising engagements with every student. Advising is continuous and embedded in the curriculum.

The role of the faculty advisor is to mentor, advise, question, recommend resources, and ultimately, oversee and approve the student's satisfaction of degree requirements for graduation. The faculty advisor is a useful resource for facilitating connections for students with other departments and classes on campus; the advisor can also be an influential and important advocate for students seeking internships, study abroad recommendations, exceptions to policies, and graduate school information and references. Faculty advisors review each student's writing portfolio, facilitate student transition conferences, and are essential mentors in supporting the development of the student interdisciplinary concentrations.

A professional Advising Coordinator oversees the system of advising at Fairhaven. This person advises new students regarding credit evaluation, degree planning, graduation processes, narrative assessment, and programs and services outside the college. The Advising Coordinator regularly reviews the academic progress of each Fairhaven student and works with faculty advisors, support personnel, and students to promote retention and satisfactory academic progress.

### Faculty

**JACK A. HERRING** (2013) Dean. BS, University of Alaska, Fairbanks; PhD, University of Washington.

**BABAFEMI AKINRINADE** (2008) Associate Professor. LL.B University of Ife; BL Nigerian Law School, LL.M Obafemi Awolowo University, LL.M. University of Notre Dame, J.S.D. University of Notre Dame.

**JOHN L. BOWER** (1998) Professor. BS, PhD, Cornell University.

**ANDREW J. BROWN** (2015) Assistant Professor. BA, Muhlenberg College; MA, Northwestern University; ABD, Northwestern University.

**LAWRENCE J. ESTRADA** (1989) Associate Professor and Director, American Cultural Studies. BA, University of California, Santa Barbara; MEd, Whittier College; PhD, University of California, Los Angeles.

**JOHN V. FEODOROV** (2005) Associate Professor. BFA, California State University-Long Beach; MFA, Vermont College.

**JULIE A. HELLING** (2000) Associate Professor. BA, University of Iowa; JD, University of Michigan Law School.

**ANA CECILIA LOPEZ** (2016) Assistant Professor. BA, Western Washington University, Fairhaven College; JD, University of Washington Law School.

**MARK Y. MIYAKE** (2015) Assistant Professor. BA, MA, PhD, Indiana University.

**NIALL Ó MURCHÚ** (2001) Associate Professor. BA, MA, University College, Dublin; MA, PhD, University of Washington.

**HILARY SCHWANDT** (2013) Assistant Professor.

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

BA, Cal Poly, San Luis Obispo; MHS, PhD, John Hopkins Bloomberg School of Public Health.

**TANIS S'EILTIN** (1992) Associate Professor. BA, University of Alaska, Fairbanks; MFA, University of Arizona.

**TAMARA SPIRA** (2014) Assistant Professor. BA, Oberlin College; MA, PhD, University of California Santa Cruz.

**STAN TAG** (1997) Associate Professor. BA, Whitworth College; MA, PhD, University of Iowa.

**MIDORI TAKAGI** (1994) Associate Professor. BA, Oberlin College; MA, American University; MPhil, PhD, Columbia University.

**JOHN TUXILL** (2007) Associate Professor, BA, Williams College; MS University of Wisconsin-Madison, PhD, Yale University.

**JENNIFER WANG** (2014) Assistant Professor. BS, MS, PhD, University of Washington.

**Faculty specialties.** Areas of faculty study and interest include African American and Asian American history, American literature, anthropology, art and art history, civil and international human rights, constitutional and environmental law, creative writing, ecology, economics, history and philosophy of science, Holocaust and mass atrocities, human development, international law, mathematics, multicultural issues and literature, music and society, Native American issues, natural sciences, nature writing, ornithology, performance studies, physics, poetry, political economy, psychology of women, queer studies, scriptwriting, social theory, theater and drama, theory and practice of teaching, transitional justice, video production, women studies, ethics, philosophy of nature, political philosophy, and other areas.

Other members of the Western Washington University faculty from various departments and programs contribute to Fairhaven's curriculum as teachers of classes, members of advisory committees for concentrations, and as lecturers. Visiting faculty and guest lecturers from other universities, and from a variety of other occupations, also add to the resources available to Fairhaven students.

## Other College Information

### Tuition, Financial Aid and Scholarships

Fairhaven students pay the same tuition and fees as students of other colleges in the University. See other sections of this catalog for specific details. Information regarding federal, state and private financial assistance and application procedures should be addressed to: Financial Aid, Western Washington University, Bellingham, WA 98225-9006.

Fairhaven offers scholarships to selected students. Check the college's website or the WWU scholarship center website for information.

### The Registration Process

**University Registration.** Registration for Fairhaven College offerings occurs during scheduled University registration periods. Class schedules (timetables) are available online. Registration for Fairhaven College variable credit classes and independent studies is via the

#### **Web4U Independent Study Proposal process.**

**Fairhaven College Students.** Credit earned by Fairhaven students taking Fairhaven classes may apply to the core requirements, to the concentration and to the general 180-credit requirement for graduation. Credit earned in other WWU classes by Fairhaven students may apply to the major or concentration, and to the 180-credit requirement for graduation.

**Other WWU Students.** Fairhaven College credit earned by students affiliated with Western's other colleges is applied to the general 180-credit requirement for graduation. Occasionally department advisors in other colleges may approve Fairhaven courses as electives for majors. Fairhaven's courses and studies are open to all WWU students (unless indicated in prerequisites or otherwise).

**The Fairhaven College Quarterly Class Descriptions.** Available prior to registration in the fall, winter and spring, this publication is available online. It announces schedule changes and additions and describes in detail Fairhaven's offerings each term. Students are advised to consult the schedule before finalizing their programs.

# Bachelor of Arts

## Fairhaven Upside-Down Program, BA

Fairhaven College of Interdisciplinary Studies

### Introduction

**Upside-Down Program:** The usual route to a BA degree calls for general education in the first two years and specialization in the last two years. The Upside-Down Program, BA gives selected students an option to reverse this process. Graduates of Washington state 2- and 4-year colleges who hold the ATA, the AAS or other approved two-year technical degrees may apply to transfer their specializations to Fairhaven as the completed major. Stages 1 and 3 of the curriculum and a minimum of 90 credits are then required for graduation. Students are expected to complete as much as possible of their elective credit at the upper-division level (courses numbered 300 or above). Each application for this program is reviewed on an individual basis. Students are urged to contact Fairhaven College early in the admissions process.

### Why Consider the Fairhaven Upside-Down Program Major?

For students with a two-year technical or pre-professional degree, this is an opportunity to put those studies at the center of a four-year BA degree.

#### Contact Information

##### Fairhaven College Admissions Coordinator

Sara Purington  
360-650-2976  
Fairhaven.Admissions@wwu.edu

##### Fairhaven College Advising Coordinator

Jackie McClure  
360-650-3682  
Jackie.McClure@wwu.edu

#### Sample Careers

Early Childhood Education, Environmental Conservation Technician, Graphic Design, Human Services

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Fairhaven College of Interdisciplinary Studies has a selective admission process for The Upside Down, BA program and enrolls first-year students, transfer students, and students from other WWU programs fall, winter, spring and summer quarters. New applicants to Fairhaven and to the University complete the WWU Undergraduate Application (available online or in print form). Indicate interest in Fairhaven College in your application. Send the standard application, transcripts, and required test scores to: Office of Admissions, Western Washington University, Bellingham, WA 98225-9009.

In addition to the WWU application, Fairhaven requests a personal statement, two letters of recommendation and an interview (in person or by telephone). For more information or to make an appointment, please call 360-650-6680.

Visitors are welcome and with advance notice, appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

### Grade Requirements

A grade of 'S' in Fairhaven courses or C- or better in courses in other departments is required for this degree.

### Fairhaven Core Curriculum

#### Exploratory Studies (Stage One)

- FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College
- FAIR 201A - Critical and Reflective Inquiry

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

- FAIR 202A - Core: Humanities and the Expressive Arts I
- FAIR 203A - Social Relationships and Responsibility: Theories and Critiques
- FAIR 206A - Core: Science and Our Place on the Planet I
- FAIR 305A - Core: Writing and Transition Conference
- FAIR 403A - Core: Advanced Seminar
- One 300-level course in each of the following areas, with the specific course in each area, selected from a listing of approved courses found on the Fairhaven College website:
  - Humanities and the Expressive Arts II
  - Society and the Individual II
  - Science and our Place on the Planet II

### Concentrated Studies (Stage Two)

- The technical 2-year degree coursework forms the bulk of the concentrated studies for this degree.
- Transfer coursework will be complemented by a set of primarily upper-division coursework determined in consultation with The Upside Down Program advisor.

### Advanced Studies (Stage Three)

- FAIR 403A - Core: Advanced Seminar
- A minimum of 90 total credits at Western Washington University are required for this degree, with 180 credits total.

## Interdisciplinary Concentration, BA

Fairhaven College of Interdisciplinary Studies

### Introduction

**Interdisciplinary Concentration – the Individually Designed Major.** The Fairhaven College Interdisciplinary Concentration provides an opportunity for developing an individually designed major for the Bachelor of Arts or Bachelor of Arts in Education degrees. It allows maximal flexibility in formulating a program to meet personal and career goals, bringing together each student's vital interests from more than one discipline into a cohesive whole.

The self-designed concentration process allows students to work with a faculty committee to articulate a sound rationale for their area of study and to develop a plan including courses, independent study projects, senior projects and, where applicable, internships and apprenticeships. Students are assisted in completing the concentration by faculty and other advisors and by the Concentration Seminar course. At the conclusion of the program, a senior project and a concentration summary and evaluation help each graduate to evaluate her or his own work and to look toward the future.

Concentrations have been developed in a wide range of areas not available through traditional majors. Further information pertaining to the concentration, its possibilities and prospects, may be found in the Student Guide to Fairhaven College.

### Why Consider an Interdisciplinary Concentration at Fairhaven College?

Fairhaven College offers a unique opportunity for students wanting to be fully engaged in the process of designing their college education.

#### Contact Information

##### Fairhaven College Admissions Coordinator

Sara Purington  
360-650-2976  
Fairhaven.Admissions@wwu.edu

##### Fairhaven College Advising Coordinator

Jackie McClure  
360-650-3682  
Jackie.McClure@wwu.edu

#### Sample Careers

With an interdisciplinary degree the options are wide-ranging. Examples of careers of Fairhaven alumni include: university professor, award-winning independent filmmaker, corporate executive, writer, tribal



government leader, social entrepreneur, visual artist, medical doctor, organic agriculture entrepreneur, human resource professional, non-profit leader, social worker and community activist.

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Fairhaven College of Interdisciplinary Studies has selective admission and enrolls first-year students, transfer students, and students from other WWU programs fall, winter, spring and summer quarters. New applicants to Fairhaven and to the University complete the WWU Undergraduate Application (available online or in print form). Indicate interest in Fairhaven College in your application. Send the standard application, transcripts, and required test scores to: Office of Admissions, Western Washington University, Bellingham, WA 98225-9009.

In addition to the WWU application, Fairhaven requests a personal statement, two letters of recommendation and an interview (in person or by telephone). For more information or to make an appointment, please call 360-650-6680.

Students currently enrolled in other University programs may apply to transfer to Fairhaven's program by the quarterly application deadlines. Current WWU students applying to Fairhaven do not need to submit transcript test scores or the WWU Undergraduate Application.

Visitors are welcome and with advance notice, appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

### Grade Requirements

A grade of 'S' in Fairhaven courses or C- or better in courses in other departments is required for this degree.

### Fairhaven Core Curriculum

#### Exploratory Studies (Stage One)

- FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College
- FAIR 201A - Critical and Reflective Inquiry
- FAIR 202A - Core: Humanities and the Expressive Arts I
- FAIR 203A - Social Relationships and Responsibility: Theories and Critiques
- FAIR 206A - Core: Science and Our Place on the Planet I
- FAIR 305A - Core: Writing and Transition Conference
- One 300-level course in each of the following areas, with the specific course in each area, selected from a listing of approved courses found in the Fairhaven College website.
  - Humanities and the Expressive Arts II
  - Society and the Individual II
  - Science and our Place on the Planet II

#### Concentrated Studies (Stage Two)

- FAIR 303A - Core: Interdisciplinary Concentration Seminar
- FAIR 401A - Core: Senior Project
- Coursework as approved by the student's individual concentration committee

#### Additional Requirements - Advanced Studies (Stage Three)

- FAIR 403A - Core: Advanced Seminar

### Interdisciplinary Concentration: Law, Diversity & Justice Emphasis, BA

Fairhaven College of Interdisciplinary Studies

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

## Introduction

**Interdisciplinary Concentration – the Individually Designed Major.** The Fairhaven College Interdisciplinary Concentration: Law, Diversity & Justice Emphasis provides an opportunity for developing an individually designed major for the Bachelor of Arts degree. It allows maximal flexibility in formulating a program to meet personal and career goals, bringing together each student's vital interests from more than one discipline into a cohesive whole.

The self-designed concentration process allows students to work with a faculty committee to articulate a sound rationale for their area of study and to develop a plan including courses, independent study projects, senior projects and, where applicable, internships and apprenticeships. Students are assisted in completing the concentration by faculty and other advisors and by the Concentration Seminar course. At the conclusion of the program, a senior project and a concentration summary and evaluation help each graduate to evaluate her or his own work and to look toward the future.

Concentrations have been developed in a wide range of areas not available through traditional majors. Further information pertaining to the concentration, its possibilities and prospects, may be found in the Student Guide to Fairhaven College.

## Why Consider an Interdisciplinary Concentration with a Law, Diversity & Justice Emphasis at Fairhaven College?

The Law, Diversity & Justice (LDJ) Concentration is designed for students with a strong interest in law, diversity and access to the legal system for under-served communities. The Law, Diversity and Justice Concentration is open to all Fairhaven students with a passion for social justice. The concentration welcomes students who desire to effect change and who have the potential to act as leaders and role models in their communities using legal knowledge and processes. The curriculum also emphasizes a critical examination of how issues such as race, class, gender, sexual orientation and disability intersect with the legal system.

### Contact Information

#### Fairhaven College Admissions Coordinator

Sara Purington  
360-650-2976  
Fairhaven.Admissions@wwu.edu

#### Fairhaven College Advising Coordinator

Jackie McClure  
360-650-3682  
Jackie.McClure@wwu.edu

### Sample Careers

With an interdisciplinary degree with this emphasis, the options are wide-ranging. Examples of careers of Fairhaven alumni with this degree include: attorney, domestic violence legal advocate, writer, tribal government leader, social entrepreneur, human resource professional, non-profit leader, social worker and community activist.

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Fairhaven College of Interdisciplinary Studies has selective admission and enrolls first-year students, transfer students, and students from other WWU programs fall, winter, spring and summer quarters. New applicants to Fairhaven and to the University complete the WWU Undergraduate Application (available online or in print form). Indicate interest in Fairhaven College in your application. Send the standard application, transcripts, and required test scores to: Office of Admissions, Western Washington University, Bellingham, WA 98225-9009.

In addition to the WWU application, Fairhaven requests a personal statement, two letters of recommendation and an interview (in person or by telephone). For more information or to make an appointment, please call 360-650-6680.

Students currently enrolled in other University programs may apply to transfer to Fairhaven's program by the quarterly application deadlines. Current WWU students applying to Fairhaven do not need to submit transcript test scores or the WWU Undergraduate Application.

Visitors are welcome and with advance notice, appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

The Interdisciplinary Concentration: Law, Diversity and Justice Emphasis is officially declared when this concentration developed by the student under faculty supervision is accepted for filing.

## Grade Requirements

A grade of 'S' in Fairhaven courses or C- or better in courses in other departments is required for this degree.

## Fairhaven Core Curriculum

### Exploratory Studies (Stage One)

- FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College
- FAIR 201A - Critical and Reflective Inquiry
- FAIR 202A - Core: Humanities and the Expressive Arts I
- FAIR 203A - Social Relationships and Responsibility: Theories and Critiques
- FAIR 206A - Core: Science and Our Place on the Planet I
- FAIR 305A - Core: Writing and Transition Conference
- One 300-level course in each of the following areas, with the specific course in each area, selected from a listing of approved courses found in the Fairhaven College website:  
Humanities and the Expressive Arts II  
Society and the Individual II  
Science and our Place on the Planet II

### Concentrated Studies (Stage Two)

- FAIR 303A - Core: Interdisciplinary Concentration Seminar
- FAIR 401A - Core: Senior Project
- Coursework as approved by the student's individual concentration committee

### Additional Requirements - Advanced Studies (Stage Three)

- FAIR 403A - Core: Advanced Seminar

## Law, Diversity & Justice Emphasis

**LDJ Required Curriculum:** Students pursuing the Law, Diversity, & Justice Emphasis must take the courses below in addition to satisfying the Fairhaven College Core curriculum listed above. The required classes in the Law, Diversity, & Justice Emphasis are:

- FAIR 311B - The American Legal System  
or  
PLSC 311 - Introduction to Law and Judicial Process
- FAIR 412E - Advanced Topics in Law (topic varies)  
or  
FAIR 334F - International Law
- FAIR 422K - Advanced Legal Writing and Analysis (capstone in senior year)
- One course from:  
FAIR 334C - International Human Rights  
FAIR 393B - Rights, Liberties and Justice in America

## Bachelor of Arts in Education

### Interdisciplinary Concentration, BAE

Fairhaven College of Interdisciplinary Studies

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

## Introduction

**Interdisciplinary Concentration – the Individually Designed Major.** The Fairhaven College Interdisciplinary Concentration provides an opportunity for developing an individually designed major for the Bachelor of Arts in Education degree. It allows maximal flexibility in formulating a program to meet personal and career goals of aspiring educators, bringing together each student's vital interests from more than one discipline into a cohesive whole.

The self-designed concentration process allows students to work with a faculty committee to articulate a sound rationale for their area of study and to develop a plan including courses, independent study projects, senior projects and, where applicable, internships and apprenticeships. Students are assisted in completing the concentration by faculty and other advisors and by the Concentration Seminar course. At the conclusion of the program, a senior project and a concentration summary and evaluation help each graduate to evaluate her or his own work and to look toward the future.

Concentrations have been developed in a wide range of areas not available through traditional majors. Further information pertaining to the concentration, its possibilities and prospects, may be found on the Fairhaven College website ([www.wvu.edu/fairhaven/](http://www.wvu.edu/fairhaven/)).

## Why Consider an Interdisciplinary Concentration at Fairhaven College?

This major offers a unique opportunity for students seeking to enter the field of education who want to be fully engaged in the process of designing their college education.

Contact Information	
<b>Fairhaven College Admissions Coordinator</b>	<b>Fairhaven College Advising Coordinator</b>
Sara Purington 360-650-2976 Fairhaven.Admissions@wvu.edu	Jackie McClure 360-650-3682 Jackie.McClure@wvu.edu
Sample Careers	
K-12 Classroom Teacher, Curriculum Design, Outdoor Experiential Educator	
Major/Career Resources	
<a href="http://www.wvu.edu/careers/students_choosingamajor.shtml">http://www.wvu.edu/careers/students_choosingamajor.shtml</a>	

## How to Declare (Admission and Declaration Process)

Fairhaven College of Interdisciplinary Studies has selective admission and enrolls first-year students, transfer students, and students from other WWU programs fall, winter, spring and summer quarters. New applicants to Fairhaven and to the University complete the WWU Undergraduate Application (available online or in print form). Indicate interest in Fairhaven College in your application. Send the standard application, transcripts, and required test scores to: Office of Admissions, Western Washington University, Bellingham, WA 98225-9009.

In addition to the WWU application, Fairhaven requests a personal statement, two letters of recommendation and an interview (in person or by telephone). For more information or to make an appointment, please call 360-650-6680.

Students currently enrolled in other University programs may apply to transfer to Fairhaven's program by the quarterly application deadlines. Current WWU students applying to Fairhaven do not need to submit transcript test scores or the WWU Undergraduate Application.

Visitors are welcome and with advance notice, appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

## Grade Requirements

A grade of 'S' in Fairhaven courses or C- or better in courses in other departments (C or better for Woodring College of Education courses) is required for this degree.

## Fairhaven Core Curriculum

### Exploratory Studies (Stage One)

- FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College
- FAIR 201A - Critical and Reflective Inquiry
- FAIR 202A - Core: Humanities and the Expressive Arts I
- FAIR 203A - Social Relationships and Responsibility: Theories and Critiques
- FAIR 206A - Core: Science and Our Place on the Planet I
- FAIR 305A - Core: Writing and Transition Conference
- One 300-level course in each of the following areas, with the specific course in each area, selected from a listing of approved courses found in the Fairhaven College website.
  - Humanities and the Expressive Arts II
  - Society and the Individual II
  - Science and our Place on the Planet II

### Concentrated Studies (Stage Two)

- FAIR 303A - Core: Interdisciplinary Concentration Seminar
- FAIR 401A - Core: Senior Project
- Coursework as approved by student's individual concentration committee. For students wishing to acquire teaching credentials, Western's Woodring College of Education offers a choice of majors appropriate to public school teaching. Faculty advise students in the construction of their programs and work closely with Woodring College of Education in helping students to complete requirements.

### Advanced Studies (Stage Three)

- FAIR 403A - Core: Advanced Seminar

## Minor

### Audio Technology, Music and Society Minor

Fairhaven College of Interdisciplinary Studies

**30 credits (minimum)**

#### Introduction

This minor provides study in audio recording techniques, augmented by the study of music and music's role in our society as entertainment, as cultural representation and as a tool for social critique.

#### Why Consider an Audio Technology, Music and Society Minor?

This minor is useful for students who have a passion for music and want to connect it to social change.

<b>Contact Information</b>	
<p><b>Fairhaven College</b> 360-650-6680</p>	<p><b>Minor Advisors</b> John Feodorov John.Feodorov@wwu.edu John Bower John.Bower@wwu.edu</p>
<b>Sample Careers</b>	
Audio recording technician   Music producer	
<b>Major/Career Resources</b>	
http://www.wwu.edu/careers/students_choosingamajor.shtml	

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

## How to Declare (Admission and Declaration Process):

Students seeking admission to the minor must first complete FAIR 270H - Introduction to Audio Recording satisfactorily and should then contact Jackie McClure at Fairhaven College. This minor is open to all students that meet the prerequisite.

## Grade Requirements

A grade of 'S' in Fairhaven courses or C- or better in courses in other departments is required for this minor.

## Core Requirements

- FAIR 270H - Introduction to Audio Recording
- FAIR 370I - Introduction to Pro Tools
- FAIR 370J - Studio Recording I
- FAIR 370K - Studio Recording II
- MUS 101 - Fundamentals of Music
- Two courses selected from the Music and Society list:
  - FAIR 255Y - Folk Music Experience
  - FAIR 336V - Topics in Art
  - FAIR 334Q - The Science and Music of Natural Sounds
  - FAIR 336M - Topics in Music & Society
  - FAIR 353V - Art in Public Sphere
  - FAIR 353Y - Songwriting Workshop
  - MUS 205 - Survey of World Musical Cultures
  - MUS 305 - Musics of the Pacific Rim

## Electives (7-11 credits) by advisement

Through these electives a student may focus more on one element of the minor.

- Choose electives from courses in the Music and Society Core Requirements list not applied to the Core or courses from the following list:
  - COMM 244 - Advocacy Through Media
  - COMM 430 - Visual Rhetoric
  - FAIR 336V - Topics in Art
  - FAIR 353Y - Songwriting Workshop
  - JOUR 190 - Introduction to Mass Media
  - JOUR 375 - Diversity, Mass Media and Social Change
  - MUS 105 - Survey of Popular and Rock Music
  - MUS 230 - Introduction to Electroacoustic Music
  - MUS 232 - Computer Music Seminar
  - MUS 432 - Electroacoustic Music(Other courses or independent studies may be substituted with permission of minor advisor.)

## Education and Social Justice Minor (see Secondary Education Department)

Education and Social Justice Minor (see Secondary Education department)

## Law, Diversity & Justice Minor

Fairhaven College of Interdisciplinary Studies

**23-28 credits**

## Introduction

The Law, Diversity & Justice Minor is an interdisciplinary course of study for students who are interested in law, diversity and access to the legal system for under-served communities. **This minor, open to all Western students**, is taught by a faculty that includes attorneys using law school texts. The minor builds the skills necessary for success after college: critical reading, writing, research, oral communication, and analytical ability. The curriculum also emphasizes a critical examination of how issues such as race, class, gender, sexual orientation and disability intersect with the legal system. The minor welcomes students who desire to effect change and who have the potential to act as leaders and role models in their communities using legal knowledge and processes.

## Why Consider a Law, Diversity & Justice Minor?

For students who want to understand how legal systems work for and against justice in our society.

### Contact Information

**Fairhaven College**  
360-650-6680

**Minor Advisor**  
Niall O'Murchu  
Niall.OMurchu@wwu.edu

### Sample Careers

Pursuit of advanced study leading to a degree in Law, Community Legal Advocate, Social Justice non-profit administrator.

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Successful completion of PLSC 311 with a grade of C- or better or FAIR 311B with a grade of 'S', and permission of the Law, Diversity and Justice (LDJ) Minor Advisor.

## Grade Requirements

A grade of 'S' in Fairhaven courses or C- or better in courses in other departments is required for this minor.

## Core Requirements (15-18 credits)

- FAIR 311B - The American Legal System  
Or  
PLSC 311 - Introduction to Law and Judicial Process
- FAIR 412E - Advanced Topics in Law  
Or  
FAIR 334F - International Law
- FAIR 422K - Advanced Legal Writing and Analysis
- One course from:
  - FAIR 334C - International Human Rights
  - FAIR 393B - Rights, Liberties and Justice in America

## Electives (minimum 8-10 credits)

Additional coursework related to diversity issues approved in advance by the LDJ Minor advisor. These courses might be drawn from the American Cultural Studies courses, Fairhaven courses, Political Science courses, Sociology courses, or other appropriate electives with approval.

## Fairhaven Courses

### **FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College**

Provides a framework for Fairhaven College's interdisciplinary philosophy and practices. Students will be introduced to the Fairhaven community, mission, educational philosophies, and their complementary processes leading toward graduation. S/U grading.

**Prerequisites & Notes:** admission to Fairhaven College

**Credits:** 1

**Grade Mode:** S/U

### **FAIR 162B - Film/Video Production with Final Cut Pro**

In this course you will learn how to plan for, shoot and edit short videos using Final Cut Pro X. Students will complete 4 short videos by the end of the week; one 30 second commercial, one "my life on campus" video, a short silent video and a group music video. Throughout the assignments the class will cover the basics of shooting with a green screen, light kit set-up, microphones and prosumer video cameras. Taught during Summer Quarter for College Quest only.

**Credits:** 1

**Grade Mode:** S/U

### **FAIR 200 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver. S/U grading.

**Credits:** 1-15

### **FAIR 201A - Critical and Reflective Inquiry**

This interdisciplinary seminar engages students in the processes of critical and reflective thinking, reading and writing. It is a place to explore what these processes are, why they are valued, how they work, and where they fit into a Fairhaven education. Exploration of these processes will be rooted in a topical and methodological approach of the professor's choosing. S/U grading.

**Prerequisites & Notes:** Admission to Fairhaven College

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 202A - Core: Humanities and the Expressive Arts I**

Explores the assumptions and practices which inform human inquiry and creativity in literature, philosophy and the arts. S/U grading.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 203A - Social Relationships and Responsibility: Theories and Critiques**

This interdisciplinary seminar is an introduction to modern social theory. Employs critical social theories to explore social relationships and examine society from positions of race, class, gender and sexuality, focusing specifically on the rights, responsibilities and obligations of individuals and communities. Integral to this examination are the experiences of those excluded from the Western ideals of freedom and equality that, arguably, form the basis of liberal democracy. S/U grading.

**Prerequisites & Notes:** Admission to Fairhaven College

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 206A - Core: Science and Our Place on the Planet I**

Science and technology are systematic, self-critical, intellectual activities by which a culture seeks to understand and benefit from the physical phenomena of its world. This course addresses science in Western culture - its social and philosophical implications, its technological applications, its potential and its limitations. S/U grading.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 210A - World Issues**

Exploration of the complex dynamics of our globalized world from a holistic, inter-disciplinary and cross-border perspective. Examination of multiple world issues such as global inequality and poverty, food security, human rights, water, energy, population growth, migration, cultural change and public health, and of our individual and community roles as agents of social change on local and global levels. This course is connected to the World Issues Forum speaker series. Repeatable up to 10 credits. S/U grading.



**Credits:** 5  
**Grade Mode:** S/U  
**GUR Attributes:** ACGM

**FAIR 212C - Introduction to Political Economy**

Study of the American macroeconomic system from two perspectives: orthodox and critical; application of both theoretical frameworks to problems in modern society. S/U grading.

**Credits:** 5  
**Grade Mode:** S/U

**FAIR 212E - Coast to Coast on a Piece of Toast: Hoboism and the Great Depression**

Explores phenomenon of 'riding the rails' in America in the Twentieth Century. Examines the effects of 'hoboism' and the Great Depression on labor and politics as well as literature, music and art. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 213B - Topics in Popular Culture**

Introductory course looking at critical interpretations of popular culture theory as it relates to particular popular culture phenomena from an interdisciplinary perspective. Topics may include reality television, soap operas, celebrity and tabloid magazines, advertising, and more. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A or concurrent registration.

**Credits:** 2-5  
**Grade Mode:** S/U

**FAIR 213D - Slave Narratives and Other Testimonies of the Old South**

An introductory, interdisciplinary approach to early African American history and the history of the Old South. Using slave autobiographies, WPA interviews, free black testimonies and memoirs in addition to contemporary historical works, we will reconstruct, analyze and deconstruct the history of Southern life and culture during the Antebellum era through the Civil War. S/U grading.

**Credits:** 3  
**Grade Mode:** S/U

**FAIR 214B - Interdisciplinary Topics in American Experience**

Significant events, movements, art genres, history or other phenomena in American society. Uses multiple approaches, not limited to the traditional

disciplines, to interpret course material. Examples of topics include a particular art form, the Ku Klux Klan etc. Repeatable with different topics. S/U grading.

**Credits:** 3-4  
**Grade Mode:** S/U

**FAIR 215F - The Asian-American Experience**

The history of Asians in the United States, the development of communities and the effects of the encounter between Asian cultures and the developing American cultural context. Also offered as AMST 205. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 205

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 216B - Testimonies of the New South**

An interdisciplinary, introductory-level course examining the social, cultural, economic changes that occurred in the South after the Civil War to the early 1900s. The primary source of documentation will be autobiographies, speeches, literature and commentaries made by black and white southerners who experienced these changes at that time. This course is a continuation of Fair 213D. S/U grading.

**Credits:** 3  
**Grade Mode:** S/U

**FAIR 218C - The Hispano/A-American Experience**

The development of the Hispano/a-American community, with emphasis on its history, its social and political institutions, and the effects of education, continuing immigration and economic stratification. Also offered as AMST 203. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 203.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 219D - The African-American Experience**

An overview of African-American history from an interdisciplinary perspective. Emphasis is on the struggle for social and political equality in a developing capitalist economy. The contemporary social, economic and political life of African Americans will also be examined. S/U grading. Also offered as AMST 204.

**Credits:** 4  
**Grade Mode:** S/U

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

## **FAIR 221J - Interdisciplinary Writing**

Directed toward the student who wishes to improve expository writing skills. Theory, practice and criticism of student work. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 222G - Imaginative Writing: Poetry**

This course is an invitation to immerse yourself in the language of being: poetry. We will explore what it means to breathe, to live as creatures of rhythm, to delight in pattern, to illuminate images and moments, to sing, and to let words trip the light fantastic along our tongues. We will read ancient and contemporary poetry, listen to poetry, discuss poetry, cook poetry, eat poetry, make poetry, walk poetry, and discover poetry in strange and ordinary places in our lives. Be prepared to experiment, take risks, work hard, ask lots of questions, and write and write and write. Repeatable to 12 credits. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 222H - Imaginative Writing: Fiction**

This class will look at fiction through both reading and creative writing, it will follow examples of fiction, non-fiction and poetry into that borderland of nets where the marvelous meets the real. Repeatable to 12 credits. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 223G - Elements of Style**

An examination of the rules and principles of English composition, including grammar, punctuation, word usage, sentence construction, and strategies for proofreading and revision. Repeatable 3 times. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

## **FAIR 223K - Collecting Personal Narratives: The Art of the Interview**

Introduction to skills in listening, questioning, and critical approaches to critiquing interviews. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 225G - Presentational Speaking**

An opportunity to develop strategies for effective presentations in a variety of contexts. S/U grading.

**Credits:** 3  
**Grade Mode:** S/U

## **FAIR 226H - Words**

An etymological exploration of words: their origins, roots, history, evolution, connotations, and usage. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 227J - Walking**

A literary and experiential examination of walking. S/U grading.

**Prerequisites & Notes:** 0  
**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 230C - Active Lifestyles for Health**

This course combines the academic and practical study of active lifestyles. Classes will include the study of particular types of fitness activities combined with involvement in the activity itself. Repeatable up to four credits including original course. S/U grading.

**Prerequisites & Notes:** FAIR 201A or concurrent.  
**Credits:** 2  
**Grade Mode:** S/U

## **FAIR 231N - Introduction to Applied Human Ecology: Sustainable Systems**

Study of relationships between human systems and the environment with an emphasis on the principle of sustainability. Study of models of sustainable development and appropriate technology complement practical applications in the Outback Farm/Wetland/Outdoor Learning Center. Student participation in instruction. S/U grading. Repeatable up to 9 credits, including original course.

**Credits:** 3  
**Grade Mode:** S/U

## **FAIR 232P - User-Friendly Statistics**

Basic statistical techniques (sampling, distributions, graphing, hypothesis testing, test of correlation and significance) in the context of real-world issues of concern to nontechnical majors, along with skills for evaluating and critiquing statistical arguments and discerning statistical abuse. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 234P - Psychology and Society**

This class will take a social psychological perspective to understand the ways individual's behaviors are influenced by the real or imagined presence of others, with a focus on social situations and construals as causes of behavior. The core areas of the field concentrate on attitudes, group processes, and interpersonal and intergroup relations. S/U grading.

**Credits:** 5  
**Grade Mode:** S/U

**FAIR 234U - Introduction to Cross-Cultural Psychology**

This survey course provides an introduction to understanding and developing an appreciation for cultural influences on the self, behavior, cognition, emotion, relationships, morality, and mental and physical health, with an emphasis on social psychological research. The course will focus on both international and U.S. perspectives. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 242R - The Art of Play: Reclaiming Imagination and Spontaneity for The Adult**

The practice of adult play with focus on methods to reclaim imagination and spontaneity. Providing an intellectual and interdisciplinary framework for understanding the nature of play through readings in philosophy, anthropology and psychology. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 243T - Awareness Through the Body**

An experiential introduction to the discipline of somatics and to traditions of somatic practice. Attention is paid both to theories and experiences of the body and its immediate environment. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 243U - Topics in Mind and Body**

An interdisciplinary exploration of the interface between mind, body and psyche; including, but not limited to, studies in somatics, movement, dance, sensory awareness, cross-cultural or integrative

wellness paradigms, consciousness, death and dying. Approaches may be experiential, historical, education, theoretical, cultural, political and transpersonal. Repeatable with different topics to a maximum of 15 credits. S/U grading.

**Credits:** 3-5  
**Grade Mode:** S/U

**FAIR 252V - Introduction to Drawing**

Studio course introducing experimental drawing mediums and style. Assigned projects emphasize the possibilities of extending traditional concepts concerning the parameters of drawing. Students set and solve their own experiential creative problems. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 254X - Introduction to Relief Printing**

Introduction to basic relief printing techniques with emphasis on narrative image-making and composition. Woodblocks, linoleum blocks and plexiglass plates will be employed for understanding printing techniques. Repeatable up to 8 credits. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 255Y - Folk Music Experience**

Focus on group performance of music from the American folk tradition, practicing instruments, learning songs, and researching folk music issues, performers, and/or songs and meeting weekly to play music together. Repeatable to a maximum of 8 credits. S/U grading.

**Credits:** 2  
**Grade Mode:** S/U

**FAIR 257V - Topics in Studio Art**

An interdisciplinary exploration of specific topics in studio art, including painting, printmaking, sculpture, and mixed media. Approaches may include historical, theoretical, literary, cultural, or political readings. Repeatable with different topics. S/U grading.

**Credits:** 3-8  
**Grade Mode:** S/U

**FAIR 258W - Introduction to Acrylic Painting**

Acrylic painting techniques and elements of form composition and color using still life, photographs and live models. S/U grading.

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**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 261E - Race In/To the Movies I: Race Relations on Film 1900-1950**

Explores race relations in America between 1900 and 1950 using film as one source of historical documentation. Films such as Birth of a Nation, Broken Blossoms and The Scar of Shame will demonstrate how movies both reflect and reinforce contemporary perceptions of inter- and intra-race relations. Readings will place the films into a broader historical context. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 263B - The American Indian Experience**

Pre-contact American Indian cultures and the impacts of colonization, primarily in North America. Focus on such aspects as sovereignty, treaty rights, health, education and economic development. Also offered as AMST 202. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 202  
**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 270B - Introduction to Digital Video Production**

This class will introduce basic camera use and video editing in the digital medium. Students will script, shoot, and edit 5 assignments using Final Cut Studio 2. Projects range from a 30-second commercial to a 3-5 minute final video on the student's choice of topic. S/U grading.

**Credits:** 2  
**Grade Mode:** S/U

## **FAIR 270H - Introduction to Audio Recording**

Introduction to Audio Recording explores the techniques, tools, and technology used in multi-track recording. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

## **FAIR 280 - Practicum**

By arrangement: fall, winter and spring. Fairhaven College independent study proposal approval required for registration. Learning through practical involvement outside the classroom; general exposure and experience. Repeatable. S/U grading.

**Prerequisites & Notes:** approval by two or more Fairhaven faculty

**Credits:** 1-6  
**Grade Mode:** S/U

## **FAIR 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver. S/U grading.

**Credits:** 1-15

## **FAIR 303A - Core: Interdisciplinary Concentration Seminar**

Application of procedures and assistance in ordering one's course of study into an effective concentration proposal. Credit awarded upon filing the proposal or declaration of a WWU major. S/U grading.

**Prerequisites & Notes:** FAIR 101a, FAIR 201a, FAIR 203a and FAIR 305a. Required of students in the Interdisciplinary Concentration.

**Credits:** 5  
**Grade Mode:** S/U

## **FAIR 305A - Core: Writing and Transition Conference**

Development of a portfolio of writing and demonstration of writing competency and readiness to pursue Concentrated Studies, in consultation with faculty. See Student Guide to Fairhaven College for procedure. Partially satisfies the all-University writing proficiency requirement. S/U grading.

**Prerequisites & Notes:** FAIR 101a and FAIR 201a.

**Credits:** 3  
**Grade Mode:** S/U

## **FAIR 310N - American Indians in the Cinema**

Explores portrayal of American Indians in the cinema and the effects of racist images and perpetuated stereotypes on Native identity, self-esteem and cultural survival. S/U grading.

**Credits:** 5  
**Grade Mode:** S/U

## **FAIR 310W - American Indian Celebrations**

Cultural background and history of some American

Indian celebrations. Films, readings, discussion, and sharing individual research. Will attend several Native celebrations in the area. This course is offered during the Summer quarter. S/U grading.

**Prerequisites & Notes:** AMST course or instructor permission

**Credits:** 3-5

**Grade Mode:** S/U

### **FAIR 311B - The American Legal System**

The American legal system and how it affects individuals and society. The structure and evolving nature of the legal system, legal reasoning and the role of courts in government. Skill development in reading and analyzing court opinions. S/U grading.

**Prerequisites & Notes:** FAIR 203A or Social Science GUR or permission of instructor.

**Credits:** 5

**Grade Mode:** S/U

**GUR Attributes:** SSC

### **FAIR 311C - Alternatives in Education**

Exploration of various alternative education and school reform movements including philosophy, politics, implementation, financing and historical context. Some of the models which may be discussed include: Montessori, Steiner (Waldorf), home schooling, free schools, single culture or gender school programs, New American Schools Development Corporation. Repeatable with different topics. S/U grading.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 312D - Issues in International Studies**

Explores issues of concern to selected nations. May also include global scope. Examples of topics include globalization, reinventing development, and environmental issues in economically poor countries. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** FAIR 203a or instructor permission.

**Credits:** 3-6

**Grade Mode:** S/U

### **FAIR 312E - Transgender Identities and Histories**

An overview of the transgender, transsexual, and intersex communities, focusing on the development of identity (male, female, 'other'). This course will look at the narratives of trans people and the history of the communities, as well as the questions raised about the nature of gender

identity formation. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 203A.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 312F - Globalizations since 1870**

Overview of the global political economy and the expansions of the capitalist system from the late nineteenth century to the early twenty-first, from the era of globalization before World War I to our current era of globalization since 1973, via Two World Wars, the Great Depression, decolonization, and the Cold War. Examines facets of the history, politics, economics, sociology, and culture of globalization, the increased mobility of goods, people, capital, and ideas around the world. S/U grading. Also offered as INTL 312.

**Prerequisites & Notes:** FAIR 203A or INTL 201 required; FAIR 212C or ECON 206 or HNRS 209 recommended.

**Credits:** 5

**Grade Mode:** S/U

**GUR Attributes:** SSC

### **FAIR 313D - Slave Narratives and Other Testimonies of the Old South**

This is an upper division course that examines the history of African and African-American slavery in the U.S. Starting from 1619, we will be exploring the development of the slave system, also referred to as the 'peculiar institution,' from the view point of enslaved African Americans, to the final collapse and destruction of slavery during the Civil War. While the predominant source of documentation will be narratives and other testimonies written during the 19th century, we will also pay attention to how scholars have approached slavery over the years.

**Prerequisites & Notes:** Any lower division U.S. history course or AMST 204 or FAIR 203A; or permission of instructor.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 313E - Queer Issues in Education**

Explores challenges for gay, lesbian, bisexual, transgendered students, teachers and families in the education system including social and development considerations, the impact of mediated heterosexism, politics of schooling. Also explores roles of allies and curriculum transformation. S/U grading.

**Prerequisites & Notes:** AMST 242

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**Credits:** 4  
**Grade Mode:** S/U

### **FAIR 314B - Advanced Interdisciplinary Topics in American Experience**

Study of events, movements, art genres, or other phenomena in America. Employs interdisciplinary approaches and social theory to deeply explore topics. Topics might include the art deco movement, nativist movements, or war. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A  
**Credits:** 4  
**Grade Mode:** S/U

### **FAIR 314E - Critical Pedagogy**

This course helps students, who may or may not be looking toward a professional career in schools, develop the knowledge and skills necessary to critically examine and evaluate various classroom practices using the theories and practice of critical pedagogy. Analyses will focus on those practices which are conceptually sound, ethically responsible, and culturally responsive, or will consider the various ways to make them so.

**Prerequisites & Notes:** AMST 301 or FAIR 366E.  
**Credits:** 4  
**Grade Mode:** S/U

### **FAIR 319B - Current Issues in Law**

A look at one or two current legal issues being addressed by US courts (including federal, state and/or tribal) today. Study of the cases surrounding the legal issue, popular opinion about the issue, and current cases testing the legal issue. Examples of possible topics include abortion, immigration, criminal law and procedure. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 311B or PLSC 311 or permission of instructor.  
**Credits:** 2-5  
**Grade Mode:** S/U

### **FAIR 319E - Advanced Topics in Popular Culture**

Advanced course studying major popular culture theorists and applying those theories to the study of popular culture from an interdisciplinary perspective. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 203A  
**Credits:** 2-5  
**Grade Mode:** S/U

### **FAIR 322M - Memoirs and Memory: Childhood in America**

Using literature, film and theoretical readings, investigates the 'idea' of childhood and, using other cultures and historical periods as lenses, examines how today's American society constructs the ideal and implements the reality. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 203A or equivalent or instructor permission.  
**Credits:** 4  
**Grade Mode:** S/U

### **FAIR 323G - Imaginative Writing II**

An opportunity to continue development of creative skills in fiction, poetry or writing for children, including the revision of promising works for publication. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 222G or FAIR 222H, creative writing course, or instructor permission.  
**Credits:** 4  
**Grade Mode:** S/U

### **FAIR 323H - Elements of Style II**

An exploration into the art of syntax and sentence-making. Builds on the exercises and concepts examined in Fair 223g Elements of Style. S/U grading.

**Prerequisites & Notes:** FAIR 223g or permission of instructor.  
**Credits:** 1  
**Grade Mode:** S/U

### **FAIR 324H - Poetry and Lyric**

Exploration of both poetry and song lyrics with a focus on similarities and differences of compositional intent. Reading, listening and writing to explore how constraints and conventions of form shape poems and songs. S/U grading.

**Prerequisites & Notes:** FAIR 202A or equivalent or poetry course.  
**Credits:** 4  
**Grade Mode:** S/U

### **FAIR 325G - Maps**

An interdisciplinary exploration of maps and mapmaking. Emphasis on the history of maps, diverse ways of mapping, cross-cultural expressions of space, and hands-on creation of individual and communal maps. S/U grading.

**Prerequisites & Notes:** FAIR 202A or instructor permission.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 325J - Studies in Myth and Mythology**

Literary and artistic archetypes, world mythology, comparative cosmology, symbols and the unconscious. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** Background in humanities or cultural history.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 328M - American Lives**

Examines the lives and work of Americans. Subjects may include artists, environmentalists, writers, scientists, civil rights activists, athletes, children, and so on. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A or instructor permission.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 330D - Natural History and Environmental Issues of NW Washington**

This field course will introduce students to the natural history and environmental issues of Northwestern Washington. S/U grading.

**Credits:** 5  
**Grade Mode:** S/U

**FAIR 330E - Ethnobotany**

Study of how people use plants--as food, medicine, material goods, and symbolic and ceremonial elements of human culture. Includes a focus on plant identification, historical exploration of plant uses, and hands-on learning about wild edibles, plant domestication, herbal medicines, fibers and more. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent.

**Credits:** 5  
**Grade Mode:** S/U

**FAIR 331N - Natural History**

An experiential and literary investigation into the science of natural history, its roots, and the diverse ways it is being applied to our contemporary lives and world. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent or instructor permission.

**Credits:** 5  
**Grade Mode:** S/U

**FAIR 332N - Current Environmental Topics**

The interdisciplinary context of current environmental issues, including the scientific basis for concern. Examples include acid rain, loss of genetic diversity, climate modification by logging, global warming, ozone depletion, overpopulation, nuclear waste disposal. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A or instructor permission.

**Credits:** 2-5  
**Grade Mode:** S/U

**FAIR 334B - Transitional Justice**

This course examines different approaches taken by countries and the international community in dealing with past serious violations of human rights, and the process by which formerly repressive States transform themselves into societies based on democracy and the rule of law. S/U grading.

**Prerequisites & Notes:** FAIR 203A

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 334C - International Human Rights**

This course examines the idea of human rights, its historical, philosophical and legal origins. It explores the notion of universal rights and examines the relativity debate. It will introduce students to rights that are guaranteed and selective substantive rights will be examined - civil and political rights; economic, social and cultural rights, and other classes of rights. Other considerations include national, regional and international institutions created to supervise implementation of and compliance with those rights. It will also consider the role of non-governmental organizations and activists who seek to enforce human rights. S/U grading.

**Prerequisites & Notes:** FAIR 203a or instructor permission.

**Credits:** 5  
**Grade Mode:** S/U

**FAIR 334D - State Failure and State Collapse**

Exploration of State failure and State collapse; considers the causes and consequences of State collapse and related issues of anarchy, civil war and the emergence of strong non-State actors. It also examines the regional implications of State collapse and the possibility of predicting and

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preventing failure and collapse. Student cannot receive credit for both this course and Fair 334e. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 334E - State Collapse and State Reconstruction**

Exploration of State failure and collapse and the prospects for reconstruction in these States. It examines the causes and consequences of State failure and collapse; the possibility of predicting and preventing failure or collapse; and various State rebuilding models. Focuses on contemporary cases of failure and collapse and State reconstruction. Student cannot receive credit for both this course and either FAIR 334D or FAIR 334G. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 334F - International Law**

Introduction to public international law, which governs the relations of States and increasingly, other non-State actors. Covers the basic doctrines of public international law and the international legal system, which will be applied to contemporary issues of international law. S/U grading. Also offered as INTL 334.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 334G - State Reconstruction**

This course considers the prospects for rebuilding failed and collapsed States. It examines various state-building models and focuses on contemporary cases of reconstruction in the aftermath of failure and collapse, and other post-conflict reconstruction situations. Students cannot receive credit for both this course and FAIR 334E. S/U grading.

**Prerequisites & Notes:** FAIR 334D or permission of instructor.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 334H - Human Rights in Africa**

This course examines the state and contemporary

practice of human rights in Africa. It reviews efforts aimed at human rights promotion and protection, in the context of colonialism and neo-colonialism, apartheid, the authoritarianism of the post-colonial African State and recent public health challenges that threaten the welfare and dignity of individual Africans. Topics to be covered include the role of the African Charter on Human and People's Rights; human rights and democracy; the NEPAD initiative; economic, social, and cultural rights; the public health challenge -- HIV/AIDS, malaria and other diseases; human rights of women, children, and other vulnerable groups; human rights and armed conflict in Africa; challenges to and future prospects for human rights in Africa. S/U grading.

**Prerequisites & Notes:** FAIR 203A or FAIR 334C or SSC GUR course or instructor permission.

**Credits:** 5

**Grade Mode:** S/U

**GUR Attributes:** ACGM

### **FAIR 334J - Genocide**

The course will explore the relationship between genocide and newer forms of mass violence, state-sponsored and non-state terror. Students will gain an understanding of the background, causes and effect of genocide; how to define and the possibility of predicting and preventing genocide, and the multiple impact of genocide on victims, perpetrators, bystanders and the society/country where it occurs.

**Prerequisites & Notes:** FAIR 203A or FAIR 334C or instructor permission.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 334K - Human Trafficking and Smuggling**

Interdisciplinary examination of the various manifestations of human trafficking and human smuggling: human trafficking, bonded labor, forced labor, worst forms of child labor, organ trafficking, prostitution and sexual slavery. Examines the rise and growth, and the cross-sectoral consequences of trafficking and smuggling. Examines the challenges of addressing human trafficking and human smuggling, and the appropriate policy responses to the problem by State and non-State actors around the world. Also offered as INTL 335. S/U grading.

**Prerequisites & Notes:** FAIR 203A or INTL 201.

**Credits:** 4

**Grade Mode:** S/U

**GUR Attributes:** ACGM

### **FAIR 334L - The Holocaust**



Interdisciplinary examination of the origins, course, and aftermath of the Nazi Holocaust. Situates the Holocaust within the multiple genocides around the world in the twentieth century. Examines the responses of targeted groups, survivor accounts (including the impact on children of the victims and perpetrators), and issues of memorialization, politicization, representation, and sacralization of the Nazi Holocaust. Also offered as INTL 336. S/U grading.

**Prerequisites & Notes:** FAIR 203A or INTL 201.  
**Credits:** 4  
**Grade Mode:** S/U  
**GUR Attributes:** BCGM

#### **FAIR 334N - Topics in Evolutionary Biology**

Explores evolutionary theory, the history of evolutionary thought, and the relevance of biological evolution to the modern human condition. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A.  
**Credits:** 4-8  
**Grade Mode:** S/U

#### **FAIR 334P - Field Studies in Science**

Systematic studies of quantitative natural history, employing field techniques from biology, chemistry, physics, and interdisciplinary science. Repeatable to a maximum of 20 credits. S/U grading.

**Prerequisites & Notes:** FAIR 206A.  
**Credits:** 3-8  
**Grade Mode:** S/U

#### **FAIR 334Q - The Science and Music of Natural Sounds**

Recording sounds in local natural settings with a focus on how and why animals produce sound, how sound travels through the environment, how we can use the sound for biological survey work and to estimate environmental degradation, how urban sounds differ from natural areas, and using recordings to compose and perform music. S/U grading.

**Prerequisites & Notes:** FAIR 206A or instructor permission.  
**Credits:** 5  
**Grade Mode:** S/U

#### **FAIR 334R - Olympic National Park Natural History and Ecology**

This field course introduces the natural history and ecology of the Olympic National Park through a

weeklong camping trip including visits and study in old growth forest, beaches, montane, and river systems. Offered summer quarter only. S/U grading.

**Prerequisites & Notes:** FAIR 206A or Permission of Instructor.  
**Credits:** 5  
**Grade Mode:** S/U

#### **FAIR 334S - Holocaust Film**

Focuses on cinematic treatments and complex issues surrounding the representation of the Holocaust. Highlights the representation in films of how the victims attempted to hide; how the Germans rounded them up, took them to camps and killed them, as well acts of courage and resistance by victims, perpetrators and bystanders. Examines how cinematic 'kitsch' and the voyeurism of uninformed audiences around the world have adulterated public memory of the Holocaust. Also offered as INTL 338.

**Prerequisites & Notes:** FAIR 201A or ENG 101 or INTL 201.  
**Credits:** 5  
**Grade Mode:** S/U  
**GUR Attributes:** HUM

#### **FAIR 335B - Global Inquiry**

Preparation for global studies and travel abroad. Repeatable to a maximum of 4 credits, including original course. S/U grading.

**Prerequisites & Notes:** FAIR 201a or equivalent  
**Credits:** 2  
**Grade Mode:** S/U

#### **FAIR 335C - Multicultural Psychology**

Interpersonal and intergroup mechanisms that can have the cumulative impact on the health, performance outcomes, and acceptance of various racial minority groups and Whites in the United States, the intersectionality between race, gender, social class, and other social group memberships will be examined.

**Prerequisites & Notes:** FAIR 203a or equivalent or instructor permission  
**Credits:** 5  
**Grade Mode:** S/U

#### **FAIR 335H - HIV and AIDS in a Global Context**

Students will learn the biology of HIV and AIDS as well as the social and political factors that affected the spread, positively or negatively, of HIV in a global context. Topics will include the typology of

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the HIV virus, how the virus interacts with the human host, the spread of HIV, the process of moving from HIV infection to an AIDS diagnosis, the history of HIV from an American perspective, the history of HIV from a non-Western perspective, the current approach to HIV treatment, and the future direction of HIV prevention and treatment programs. Links between the biology, social, political, and historical aspects of HIV in a global context will be emphasized throughout the course – as well as with other infectious diseases. S/U grading.

**Prerequisites & Notes:** FAIR 206A.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 335M - Nutrition and Public Health**

This course will discuss the biology of nutrition and its impact on the individual, society, and the global community. Students will build an understanding of nutrition and various types of malnutrition, such as starvation, eating disorders, and obesity; as well as a variety of metabolic disorders and food allergies. This class will include discussions on the impact of diet on health with every topic covered. The class will also explore inequities in nutrition – why they might exist and what types of programs have been piloted to address the inequities.

**Prerequisites & Notes:** FAIR 206A or instructor permission

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 335N - Visioning Sustainable Futures**

A critical examination of alternative futures envisioned by various writers representing the world views of diverse cultures and communities of interest, in light of present-day sociopolitical, economic and environmental realities. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A or ENG 101, and previous course work/experience in sociopolitical/environmental issues from sociopolitical perspective

**Credits:** 4-5

**Grade Mode:** S/U

### **FAIR 335P - Global Biodiversity Science and Policy**

Introduction to the science of documenting, describing, categorizing, and measuring biological diversity globally, from genes and species to eco-regions and biomes. Includes an examination of 1) biodiversity's importance for human welfare and 2) current policies and approaches for conserving and sustaining biological diversity worldwide. S/U

grading.

**Prerequisites & Notes:** FAIR 206A or equivalent.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 335Q - Qualitative Research Methods**

Students in this course will learn how to design qualitative studies, collect and analyze data, and write a report on qualitative findings. Each student will work with a team of other students on a topic of their choice. This study will be a quarter long project for each team of students – ending in a culminating presentation and research paper on the study findings at the end of the term. S/U grading.

**Prerequisites & Notes:** FAIR 206A.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 336B - Topics in Social Issues**

An interdisciplinary exploration of specific topics in the social sciences, including studies in economics, political science, international studies, social theory, ethnicity, race, culture, gender, class, law, psychology, and social activism. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203a or equivalent

**Credits:** 4-5

**Grade Mode:** S/U

### **FAIR 336H - Topics in Performance**

Stories matter. An interdisciplinary exploration of specific topics in performance, including studies in economics, political science, international studies, social theory, ethnicity, race, culture, gender, class, law, psychology, and social activism and how they are represented through performance. Will include performance components; no performance experience necessary. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A.

**Credits:** 2-6

**Grade Mode:** S/U

### **FAIR 336M - Topics in Music & Society**

An interdisciplinary exploration of specific topics in the social applications and context of music, including studies of varied music genres and their roles in society as entertainment, as cultural representation and as tools for social critique. Repeatable with different topics up to 12 credits. S/U grading.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 336N - Topics in Science**

The interdisciplinary exploration of specific topics in science, including health, reproductive science, ecology, energy, natural history, animal studies, botany, sustainability, the history of science, and science and society. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206a or equivalent  
**Credits:** 4-5  
**Grade Mode:** S/U

**FAIR 336V - Topics in Art**

An interdisciplinary exploration of specific topics in the arts, including music, art, creativity, dance, theatre, and performance. Approaches may be historical, theoretical, literary, cultural, or political, or through studio work. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202a or equivalent  
**Credits:** 4-5  
**Grade Mode:** S/U

**FAIR 338P - Cultural and Biological Perspectives on Pregnancy and Childbirth**

The biology of pregnancy and childbirth, including the development of the fetus, morphological, physiological and psychological changes women experience during pregnancy and childbirth, and the co-evolutionary relationship between mothers and fetuses. Explores childbirth from cross-cultural and historical perspectives, and focuses on the ways American medicine has viewed and treated childbirth and recent changes in American childbirth practices. S/U grading.

**Prerequisites & Notes:** FAIR 203A and 206A or instructor permission.  
**Credits:** 5  
**Grade Mode:** S/U

**FAIR 340P - Sustainable Forestry**

An examination of the development of forestry as an applied science in Europe & the U.S. and of forest management worldwide, asking what common conditions favor or promote sustainable approaches to forest management? Critical examination of sustainability itself as a guiding concept in natural resource management. S/U grading.

**Prerequisites & Notes:** FAIR 206A or permission of instructor.

**Credits:** 4  
**Grade Mode:** S/U

**FAIR 341R - Psychology of Mindfulness and Well-Being**

Numerous studies show that 'mindfulness,' an ancient practice now widely used in the West, offsets stress and leads to health, focus, and feelings of well-being. This course examines the origins, techniques and effects of mindfulness. S/U grading.

**Prerequisites & Notes:** FAIR 203A and psychology related course or instructor permission.  
**Credits:** 5  
**Grade Mode:** S/U

**FAIR 341T - Awareness Through the Body II**

A continuation of FAIR 243T with deeper attention, experiential and cognitive, to the philosophical concepts introduced in the first course, to psychophysical integration, and to the underlying principles, methods and theories in somatics. S/U grading.

**Prerequisites & Notes:** FAIR 243T or instructor permission.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 342U - The Body Speaks: Culture and Eating Disorders**

Examines eating disorders in the United States and developing countries from cultural and gender perspectives, as well as controversies regarding origins and treatments. S/U grading.

**Prerequisites & Notes:** previous course in psychology or instructor permission.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 343R - Death and Dying**

The implications of one's death for philosophy, culture, art, literature, aging, economics, psychology, medicine and living. Draws upon books, essays, films, field trips and personal experience. S/U grading.

**Credits:** 5  
**Grade Mode:** S/U

**FAIR 343U - Advanced Topics in Mind and Body**

An advanced examination of specific mind-body topics. Repeatable with different topics. S/U grading.

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**Prerequisites & Notes:** FAIR 201A

**Credits:** 3-5

**Grade Mode:** S/U

## **FAIR 344P - Asian-American Psychology**

This course examines the current psychological research on Asian American individuals and the community, with an emphasis on social psychological research. Topics will include the model minority myth, stereotypes of unassimilation, multicultural identities, perceived exemplary family values, and stigma and mental health. Also offered as AMST 344. S/U grading.

**Prerequisites & Notes:** AMST 205 or FAIR 215F or PSY 101.

**Credits:** 4

**Grade Mode:** S/U

**GUR Attributes:** BCGM

## **FAIR 344U - Cross-Cultural Psychology**

Introducing non-Western perspective of human behaviors. Culture's influences on human thinking, feeling, and action. Learning diversity in understanding societies and human beings. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** any psychology course

**Credits:** 4

**Grade Mode:** S/U

## **FAIR 345A - Principles of Social Entrepreneurship**

This course is an introduction to the principles and practices of social entrepreneurship. The emphasis is on understanding systems changes to improve the lives of people and the planet in the face of current local and global problems. The course will analyze social entrepreneur's current efforts to address and solve these problems by through socially responsible and sustainable systems.

**Prerequisites & Notes:** FAIR 203A or other introductory social theory/responsibility class approved by instructor.

**Credits:** 4

**Grade Mode:** S/U

## **FAIR 349V - Art During Wartime**

This class will explore how various artists, composers and filmmakers have expressed enthusiasm and disdain for war and its injustices throughout history. We will discuss potential contemporary applications for art during wartime and create three art projects based upon reading and discussions. S/U grading.

**Prerequisites & Notes:** FAIR 202a or equivalent

**Credits:** 4

**Grade Mode:** S/U

## **FAIR 351V - Art, Race and Gender**

This combination studio art and seminar course explores how artists and theorists address issues of race and gender identity through art. Students will research numerous artists and theorists while creating artworks that explore and express their own identities. Strategies for creating dialogues through art will also be discussed. Offered every other year. S/U grading.

**Prerequisites & Notes:** Either FAIR 220A or Art History, and one art studio course or instructor permission. Some familiarity with race or gender issues is recommended.

**Credits:** 4

**Grade Mode:** S/U

## **FAIR 351W - Printmaking Narratives**

Exploration of and experimentation with advanced printmaking techniques emphasizing the four-color technique. Relief, intaglio, drypoint, woodcut collagraph and monotype illustrating personal narratives and themes. S/U grading.

**Prerequisites & Notes:** FAIR 254X or two design or two studio art courses.

**Credits:** 4

**Grade Mode:** S/U

## **FAIR 353V - Art in Public Sphere**

Explore history and concepts behind public art, create proposals and models for public art projects, and research artists who work within public space. S/U grading.

**Prerequisites & Notes:** Introduction to drawing and one of: FAIR 355Y, FAIR 359V, FAIR 355W or permission. Background in art history recommended.

**Credits:** 4

**Grade Mode:** S/U

## **FAIR 353Y - Songwriting Workshop**

Examination of the elements of songwriting: discussing techniques, strategies and blocks; the roles and inter-relationships of melody, rhythm, and lyric; and song forms and styles. Through a series of exercises, development of a portfolio of songs. S/U grading.

**Credits:** 4

**Grade Mode:** S/U

## **FAIR 354V - Scriptwriting Workshop I**

Practice in the art and craft of writing for the dramatic media: theater, film, television and radio. Intensive writing and rewriting experience with a supportive group of other writers. S/U grading.

**Prerequisites & Notes:** previous course work or experience with creative writing or instructor permission

**Credits:** 4

**Grade Mode:** S/U

#### **FAIR 356V - Site-Specific Art**

Students will explore the creation of three-dimensional art installations, environments and/or performances developed for specific locations outside of the traditional art gallery paradigm. Students will research histories of prospective sites and communities in order to write proposals and create thematic and socially relevant artworks. S/U grading. Repeatable up to 8 credits, including original course.

**Prerequisites & Notes:** FAIR 202A and one studio art course or instructor permission. ART 109 recommended.

**Credits:** 4

**Grade Mode:** S/U

#### **FAIR 356W - Video, Performance & Sound Art**

Students will explore and develop ideas and existing skills in the areas of video, performance and/or sound art within the context of contemporary art; culminating in a public screening, exhibition or performance of a final project. Students will present proposals and timelines to the instructor, give regular progress reports to the class, and write artist statements for each of their projects. Experimentation and creative risk-taking is highly encouraged. Emphasis will be placed upon stepping outside of traditional and popular genres in order to challenge both artist and audience. S/U grading

**Prerequisites & Notes:** FAIR 202A or one course in either music, art or theater/dance history, and previous course in either audio, video or performance practice.

**Credits:** 4

**Grade Mode:** S/U

#### **FAIR 356X - Dreams, Imagination and Creativity**

A study, through readings, discussion, experiences, of the content and interrelationships between dreams, imagination and creativity to enhance the intuitive dimension of daily life. Extending the range of imagination through practice: visualization techniques, artistic expression, journal writing. S/U grading.

**Prerequisites & Notes:** FAIR 203A or FAIR 243R or instructor permission.

**Credits:** 4

**Grade Mode:** S/U

#### **FAIR 357V - Topics in Studio Art II**

An interdisciplinary exploration of specific topics in studio art, including painting, printmaking, sculpture, and mixed media for students with some studio art background. Approaches may include historical, theoretical, literary, cultural, or political readings. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A and previous experience in studio art or permission of instructor.

**Credits:** 3-8

**Grade Mode:** S/U

#### **FAIR 357Y - Theatre/Film Production**

An opportunity to work with intensive instruction on production of student-written dramas or films. Repeatable twice. S/U grading.

**Prerequisites & Notes:** previous work in theatre/film production or instructor permission

**Credits:** 4

**Grade Mode:** S/U

#### **FAIR 358V - Intermediate Acrylic Painting**

Intermediate acrylic painting techniques and elements of form composition and color using still life, photographs and live models. S/U grading.

**Prerequisites & Notes:** FAIR 258W

**Credits:** 4

**Grade Mode:** S/U

#### **FAIR 361E - Race In/To the Movies II: Race Relations on Film: 1950-1980**

Explores race relations in America between 1950 and 1980, using film as one source of historical documentation. Films such as Raisin in the Sun, Twelve Angry Men and various 'Blaxploitation' movies will demonstrate how movies both reflect and reinforce contemporary perceptions on inter- and intra-race relations. Readings will place the films into a broader historical context. S/U grading.

**Prerequisites & Notes:** FAIR 261E or other film studies class.

**Credits:** 4

**Grade Mode:** S/U

#### **FAIR 362F - We're Not for Sale: History of Asian Women in America**

Explores the history and experiences of Asian

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women in America from the mid-19th century to the present. S/U grading.

**Prerequisites & Notes:** FAIR 215F or AMST 205 or course in history of American women.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 363B - Suzie Wong to Miss Saigon: Asian Presence in Hollywood**

Explores the different perspectives of, and attitudes toward, Asian Americans and Asians in America from 1915 to the present, using film as a main source of historical documentation. S/U grading.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 364C - El Movimiento Chicano**

Examines the sociohistorical, political and cultural characteristics of the Chicana/o Movement from 1848 to present. Formation and symbolic evolution of the United Farmworkers' Movement, the Chicana/o cultural renaissance of the '60s and '70s, the Chicana/o student movement for educational liberation and the roots of the Chicana/feminist and lesbian movements from the '70s through the '90s. S/U grading.

**Prerequisites & Notes:** FAIR 203A or FAIR 218C or AMST 203 or HIST 463.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 365C - Contemporary Voices of Latin American Resistance**

This course will look at the formative structure of Latin American leftist, political ideology by examining the writings of Theotonio Dos Santos, Paulo Freire, Che Guevara, Jose Marti and Antonio Gramsci. It will further focus on contemporary authors and the present course of Latin American politics by reflecting upon the political beliefs and perspectives of such authors as: Comandante Marcos, Elena Poniatowska, Eduardo Galeano, Hugo Chavez, Evo Morales, Luiz Ignacio Lula Da Silva and Michelle Bachelet. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 366E - Comparative Cultural Studies**

Interaction of immigrant and indigenous cultures with the developing American cultural patterns. Emphasis on modes and concepts of interaction,

especially related to African Americans, Native Americans, Asian Americans and Latinos. Also offered as AMST 301. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 301

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 367B - Issues in Political Economy**

Upper division seminar in political economy. Course themes may include, but are not limited to: labor market stratification by race and gender; trade and globalization; human and political development; varieties of capitalism; and varieties of welfare states. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission.

**Credits:** 3-6

**Grade Mode:** S/U

### **FAIR 369C - Vietnam War Redux**

This course examines the war in Vietnam from 1962-1975 from the under/other side. It does not focus on whether or why the United States lost the war. Rather, it explores the tragic costs of the war from usually marginalized perspectives: Vietnamese fighters and civilians, American families, and women and minorities who served. S/U grading.

**Prerequisites & Notes:** FAIR 203A or instructor permission

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 369D - American War Stories: The Great War to Iraq**

This seminar presents an exploration of the major stories (literature, cinema, arts) and social movements produced by American wars since WWI. Rather than a traditional history of the wars aimed at discovering how and why someone lost and why others won, the seminar examines the impacts war has had on American and opponents' veterans, families, arts and ideals. We will learn how war affects people at the individual and family level, how movements of support and resistance develop and what have been the wars' major influences on popular culture. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 370I - Introduction to Pro Tools**

This course will introduce students to mixing and

editing audio with Avid's Pro Tools software. S/U grading.

**Prerequisites & Notes:** FAIR 270H or concurrent.

**Credits:** 2

**Grade Mode:** S/U

### **FAIR 370J - Studio Recording I**

Studio Recording I takes the concepts introduced in FAIR 270H and FAIR 370I and allows the student to apply and practice them in a hands-on manner, with the goal of becoming familiar and competent in the use of all the gear in the Fairhaven Recording Studio. S/U grading.

**Prerequisites & Notes:** FAIR 370I or FAIR 370P.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 370K - Studio Recording II**

This class will give students with advanced recording experience the opportunity to record and mix on an industry standard Pro Tools HD system. Students will enhance their knowledge of Pro Tools and learn how to use the software in conjunction with a large-format analog mixing console. Repeatable up to 6 credits. S/U grading.

**Prerequisites & Notes:** FAIR 370J or FAIR 370H.

**Credits:** 2

**Grade Mode:** S/U

### **FAIR 370T - World Issues Group Study**

As engaged citizens, what do we know and understand about global issues and ourselves in a world faced with the complex issues of growing economic disparities, fragile democracies, environmental degradation, wars, human rights, globalization, and ethnic/religious conflicts? What is our awareness of and participation in local and global efforts for peace and justice? Students in the class join campus and community members in the weekly World Issues Forum with guest speakers. As a class, students research, discuss and reflect on the forum topic and find ways to respond through social justice/service learning in the community. Repeatable up to 12 credits. S/U grading.

**Prerequisites & Notes:** FAIR 203A; or a social science GUR course.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 371B - Topics in Middle East Studies**

Seminar in Middle East studies. Course themes may include, but are not limited to, a survey of the history and political economy of the Modern Middle

East; the colonial past and present in the Middle East; Orientalism; US policy toward the Middle East; State-society Relations in the Middle East; and case studies of specific countries and conflicts. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission.

**Credits:** 3-6

**Grade Mode:** S/U

**GUR Attributes:** ACGM

### **FAIR 371E - Nations and Nationalism**

Survey course on the development of national identity since the late eighteenth century and the rise of the nation-state. Focus on the slippage between national and ethnic identities and the predicaments of stateless nations. Comparative case studies of various nationalisms in the United States, Europe, and the post-colonial world. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 372F - Race and Society Within the Latino Caribbean**

The purpose of the course is to examine the past and present context of how race and cultural fusion have been experienced among peoples and nation states within the Latino Caribbean. Particular emphasis will be placed on the various ways in which racial/cultural identities are complicated by questions of gender, religion, politics, class and sexuality both in the Caribbean as well as those Latino-a Caribbean populations now residing in the United States. S/U grading.

**Prerequisites & Notes:** One of ANTH 101, ANTH 104, ANTH 201, FAIR 201a, FAIR 203a, AMST 203 or HIST 273.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 374B - The Cultural Creation of Identity**

How ethnic, racial and cultural identity is created by society. Includes a study of the social construction of identity from a scholarly perspective, but will also require the student to examine his or her own personal identity. S/U grading.

**Prerequisites & Notes:** FAIR 203A or instructor permission.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 381G - Topics in Literature**

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An exploration of writers, periods, genres, theories or comparative studies which engage the student in the careful reading and critical discussion of literature, and in writing clearly about the works and issues involved. Repeatable with different topics. S/U grading.

**Credits:** 3-5

**Grade Mode:** S/U

### **FAIR 384J - Writing Nature**

Workshop on creative nonfiction writing focusing on natural history, nature, wildness, environment, conservation, science, medicine, landscape or place. S/U grading.

**Prerequisites & Notes:** FAIR 201A or instructor permission.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 386E - Topics in Humanities**

An interdisciplinary exploration of specific topics in the humanities, including history, philosophy, religion, literature, and mythology. Repeatable to a maximum of 15 credits with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A or equivalent

**Credits:** 4-5

**Grade Mode:** S/U

### **FAIR 387K - Grant Writing Workshop**

Focuses on the basics of grant writing, including seeking funding sources, reading and interpreting funding guidelines, developing and refining proposals, and tricks of the trade. Development of, either individually or as a group, two small grant proposals. S/U grading.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 388M - Oral History**

Study in methods for conducting, editing, and interpreting oral interviews. S/U grading.

**Prerequisites & Notes:** FAIR 223 or instructor permission

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 393B - Rights, Liberties and Justice in America**

Study of American ideas of rights and liberties; what they mean in practice; competing principles and ideologies at work in the arena of

constitutional rights; history of our justice system with regard to rights and liberties and directions it seems to be heading. S/U grading.

**Prerequisites & Notes:** upper-division courses in social science or history highly recommended

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 399B - Contemporary American Indian Issues**

Presents timely issues in Indian-White relations. Emphasis on case studies of issues of sovereignty, land claims, treaty rights, cultural appropriation, economic development, health, education, and environment. Also offered as AMST 315. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** AMST 202 or FAIR 263 or HIST 275; or instructor permission. Also offered as AMST 315

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver. S/U grading.

**Credits:** 1-15

### **FAIR 401A - Core: Senior Project**

Independent study required of students undertaking an Interdisciplinary Concentration. See the Fairhaven College Guidelines for Concentrations for more information. S/U grading.

**Credits:** 1-18

**Grade Mode:** S/U

### **FAIR 403A - Core: Advanced Seminar**

Required of all Fairhaven College students. A forum in which students are required to reflect on, summarize and evaluate their major or concentration programs and to consider their education in relation to the world they are entering. Course must be taken in final quarter before graduation. S/U grading.

**Prerequisites & Notes:** Required by all Fairhaven students. Senior status.

**Credits:** 4

**Grade Mode:** S/U



**FAIR 412D - Global Justice**

Examination of the question of justice in a globally interconnected world, including the moral duties we as individuals, societies and governments have to those disadvantaged by world economy and global institutions. Also offered as INTL 412. S/U grading.

**Prerequisites & Notes:** FAIR 210A or INTL 201 or FAIR 203A.  
**Credits:** 5  
**Grade Mode:** S/U

**FAIR 412E - Advanced Topics in Law**

Investigation of an area of the law using a law school class format and text. Examples of topics include Federal Indian Law II, Property Law, Current Issues in the U.S. Supreme Court, and critical legal studies. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 311B or PLSC 311 or permission of instructor.  
**Credits:** 2-5  
**Grade Mode:** S/U

**FAIR 413A - International Childhood**

An examination of a wide range of children's experiences around the world, including a cultural analysis of middle-class American childhood, to unpack constricted, culture-bound conceptions of childhood and to illustrate the diverse forms of children's development and societal roles.

**Prerequisites & Notes:** INTL 201 or FAIR 203A  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 413E - Curers, Clients and Culture: Cross Cultural Perspectives on Health and Illness**

Examines health belief systems in cross-cultural perspective, including the roles of practitioner and patient; explanation, diagnosis and treatment of disease; the impact of modernization on non-Western medical systems, and ethnicity and health care in the U.S. S/U grading.

**Prerequisites & Notes:** cross-cultural study or instructor permission  
**Credits:** 5  
**Grade Mode:** S/U

**FAIR 414B - Vietnam on Film**

Exploration of the cinematic interpretations of the Southeast Asian war as a process of rationalizing and renegotiating American interests and history

to suit contemporary political and cultural purposes. S/U grading.

**Prerequisites & Notes:** FAIR 369C or HIST 104 or evidence of familiarity with the Vietnam War or instructor permission.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 414D - Special Topics in Social Justice Education**

Specific issues in social justice education will be used as lenses for analyzing, evaluating and transforming interlocking systems of power, privilege, oppression and discriminatory institutional structures and cultural practices and social behavior. Also offered as EDUC 414.

**Prerequisites & Notes:** AMST 301 or FAIR 366E; FAIR 314E; and EDUC 411.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 419F - Cross-Cultural Shamanism**

Cross-cultural comparison of the roles, recruitment, techniques and performances of shamans, those ceremonial practitioners who move in a state of ecstasy between various spiritual realms. The relationships between healing, magic, sorcery and alternative states of consciousness in cultural context. S/U grading.

**Prerequisites & Notes:** FAIR 203A and either ANTH 201 or a course in cross-cultural studies, or instructor permission.  
**Credits:** 5  
**Grade Mode:** S/U

**FAIR 421H - Advanced Topics in Literature**

In-depth consideration of a small number of works, with theoretical or comparative analysis and intensive work with critical discussion and writing. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** 300-level course work in literature  
**Credits:** 3-5  
**Grade Mode:** S/U

**FAIR 422J - Art of the Essay**

An advanced course in the art of writing essays. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 202A, and 300-level writing course.  
**Credits:** 4  
**Grade Mode:** S/U

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

### **FAIR 422K - Advanced Legal Writing and Analysis**

Explores persuasive legal writing, researching and writing an appellate brief on a current legal issue. S/U grading.

**Prerequisites & Notes:** FAIR 311B or PLSC 311 or permission of instructor.

**Credits:** 4

**Grade Mode:** S/U

### **FAIR 423K - Space, Place and Imagination**

An advanced exploration of the relationship between who we are and where we are, between self and place, imagination and landscape. S/U grading.

**Prerequisites & Notes:** 300-level Humanities course.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 432Q - Ecological Restoration**

Introduces students to the science and practice of restoring ecological integrity and health to natural landscapes. The approach of the course will be philosophical as well as empirical. This course is repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent, a course in biology or ecology, and upper level standing, or instructor's permission.

**Credits:** 5

**Grade Mode:** S/U

### **FAIR 433P - Advanced Topics in Evolutionary Biology**

Explores advanced and specific topics in evolutionary theory, the history of evolutionary thought, and/or the application of biological evolution to the modern human experience. Repeatable with different topics to a maximum of 8 credits. S/U grading.

**Prerequisites & Notes:** Any course in evolution or permission of instructor.

**Credits:** 1-8

**Grade Mode:** S/U

### **FAIR 434P - Advanced Studies in Field Science**

In-depth quantitative field study, including study design, data collection and analysis, and the writing of a scientific paper to report the findings. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A, or equivalent,

or instructor permission.

**Credits:** 5-8

**Grade Mode:** S/U

### **FAIR 436B - Advanced Topics in Social Issues**

An advanced examination of specific topics in the social sciences. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A; 300-level social science course or equivalent

**Credits:** 4-8

**Grade Mode:** S/U

### **FAIR 436N - Advanced Topics in Science**

An advanced examination of specific topics in science. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A; 300-level science course or equivalent

**Credits:** 4-8

**Grade Mode:** S/U

### **FAIR 436V - Advanced Topics in Art**

An advanced examination of specific topics in the arts. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A; 300-level art course

**Credits:** 4-8

**Grade Mode:** S/U

### **FAIR 440N - Ethnoecology: Conservation and Development**

Exploration of the role of traditional ecological knowledge in maintaining and restoring healthy ecological relationships between communities and the environment. Taught every other year. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent or permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### **FAIR 441U - The Relational Self: Theories and Research**

Study of new paradigms of the self, including revisions of familiar concepts of identity, self-knowledge and self-esteem. S/U grading.

**Prerequisites & Notes:** previous courses in psychology or instructor permission

**Credits:** 4

**Grade Mode:** S/U

**FAIR 444U - Depression: Causes, Cultures and Treatments**

An examination of biochemical, clinical and cultural explanations for depression and questions regarding why depression is becoming so widespread. Issues will include the increase of depression symptoms worldwide, gender differences in depression and specific treatments. S/U grading.

**Prerequisites & Notes:** previous psychology courses or instructor permission  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 448T - Risk and Resilience in Adolescent Girls: Development, Culture and Identity**

A consideration of latest literature on female adolescent development, including diversity. S/U grading.

**Prerequisites & Notes:** Previous courses in psychology or women studies.  
**Credits:** 5  
**Grade Mode:** S/U

**FAIR 451X - Resistance Art of the Indigena**

Examines contemporary visual and literary arts of indigenous peoples of Canada and the United States. Emphasis on artwork that reflects personal and cultural histories, government and state relations, and Western misrepresentation of Native peoples in the media and academia. S/U grading.

**Prerequisites & Notes:** FAIR 218C or AMST 202 or FAIR 399B or AMST 315; studio art courses or experience above the 200-level  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 451Y - The 'Primitive' in Modern Art**

This class will provide students with an alternative understanding of art and art history beginning in the Modern era late in the nineteenth century and continuing forward to the 21st century. The study of Primitivism will work to introduce students to early Western concepts of race, art and identity. The investigation of methods with which Indigenous artists and scholars challenge these notions will provide a new lens for understanding the history of colonization, the politics of representation, and various definitions of race and art. Also offered as AMST451

**Prerequisites & Notes:** FAIR 202A or AMST 301 or instructor permission.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 454Y - Scriptwriting Workshop II**

Advanced practice in the art and craft of writing for dramatic media: theatre, film, television, radio. Emphasis on sharpening forms and styles, and on preparing scripts for production. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** FAIR 354V; previous 200-level work in scriptwriting any medium, or instructor permission.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 455V - Advanced Printmaking**

Advanced printmaking techniques illustrating various themes developed by students in consultation with instructor, with an emphasis on technique and aesthetics. S/U grading.

**Prerequisites & Notes:** FAIR 254X, FAIR 351W.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 457V - Advanced Topics in Studio Art**

An advanced exploration of specific topics in studio art, including painting, printmaking, sculpture, and mixed media for students with some studio art background. Approaches may include historical, theoretical, literary, cultural, or political readings. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A and upper-division coursework in studio art or permission of instructor.  
**Credits:** 3-8  
**Grade Mode:** S/U

**FAIR 464D - Advanced Topics in American Indian Studies**

This seminar presents an interdisciplinary examination of a major topic in Indian/White relations such as gaming, treaty rights, sovereignty, or education. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 4  
**Grade Mode:** S/U

**FAIR 480 - Internship**

By arrangement: fall, winter and spring. Fairhaven College independent study proposal approval required for registration. Practicum in an area related to one's course of study; addresses specific roles or responsibilities. S/U grading.

**Prerequisites & Notes:** approval of two or more

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

Fairhaven faculty

**Credits:** 1-15

**Grade Mode:** S/U

## **FAIR 486E - Advanced Topics in the Humanities**

An advanced examination of specific topics in the humanities. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A or equivalent; 300-level humanities course

**Credits:** 4-8

**Grade Mode:** S/U

## **FAIR 490A - Good Teaching: Power of Art and Community**

This course is offered in conjunction with the annual Northwest Teacher's Conference. See <http://www.nwteachersconference.org/> for details about registering for the Conference. The specific workshops vary from year to year, but through pre-reading activities, daily workshops and reflective writing, students will explore questions related to the challenge of sustaining good teaching practices amid increasing pressures to standardize curriculum, classrooms, and children's needs. We will envision learning environments where finding meaning matters and where the creative process is valued as a learning strategy. We will identify personal and community resources needed to broaden and/or transform teaching practices.

**Credits:** 2

**Grade Mode:** S/U

## **FAIR 499B - Special Problems in Interdisciplinary Studies**

Investigation of problems and issues through advanced interdisciplinary study. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** upper-division status or instructor permission

**Credits:** 10-15

**Grade Mode:** S/U

# Huxley College of the Environment

## Introduction

Dr. Steven J. Hollenhorst, Dean

Huxley College of the Environment is one of seven colleges constituting Western Washington University, consistently recognized as one of the outstanding public institutions of higher education in the West.

As one of the oldest environmental colleges in the nation, Huxley College is a recognized leader in producing the next generation of environmental professionals and stewards. Huxley's integrative approach is designed to train students for creative, fulfilling careers in a changing world. Since its establishment in 1969, Huxley College has won national and international recognition for undergraduate and graduate programs that are continually refined to enhance practical, collaborative approaches to solving environmental problems.

Students enter Huxley College with a foundation in science and social science and pursue specialization in their chosen fields with plans of study designed to provide a broad base of knowledge and perspective. A unique component of our programs is the interdisciplinary requirement that Environmental Science students take courses in Environmental Studies, and vice versa. Students are also encouraged to design independent programs within the college and to participate in cooperative programs with other university departments. Huxley faculty and staff are readily available to collaborate with student initiatives in learning. In addition to classroom work, seniors participate in internships and may serve with faculty and staff on college committees. Students also complete a capstone class in which students find solutions to very real community problems that may end with a presentation to a city council, port governing board or even representatives from the Washington State Department of Ecology instead of a final exam.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Business and Sustainability*	BA
Economics/Environmental Studies*	BA
Environmental Education	BA, MED
Environmental Policy	BA
Environmental Science	BS, MS
Environmental Studies	BA, MA
Environmental Studies/Elementary	BAE
Geography	BA
Geography/Elementary	BAE

Faculty specialties include oceanography, zoology, engineering, geology, disaster resilience, psychology, coastal geography, population biology, urban planning, marine chemistry and many other fields. Huxley College courses embrace natural and physical sciences, human ecology and ethics, history and resource policy, writing and photography, and others. Our students publish the quarterly award-winning Planet magazine, and routinely receive instruction and mentoring in the use of a variety of new technologies included in the water quality, toxicology and planning labs, and Shannon Point Marine Center.

Most Huxley College classrooms, offices and laboratories are located in the Environmental Studies building and Arntzen Hall. Huxley College also houses the Institute of Environmental Toxicology for research on risk assessment and effects of toxic substances; the Institute for Watershed Studies for freshwater and limnological studies; the Resilience Institute for promoting sustainable development and fostering resilient communities; and the Huxley Spatial Institute for teaching and research in Geographic Information Science and remote sensing. Huxley College is also a collaborating partner with the College of Business and Economics and the College of Science and Engineering to support the Institute for Energy Studies, an innovative new program designed to meet the needs of a rapidly expanding green-energy economy and student interest in energy-related fields.

## Mission

Huxley College of the Environment addresses today's environmental issues and prepares tomorrow's interdisciplinary problem solvers. We accomplish this mission by integrating outstanding educational programs, faculty-student collaboration, applied research, and professional and community service.

## Vision

Huxley College of the Environment is a premier institution for the education of future environmental experts and leaders.

# HUXLEY COLLEGE OF THE ENVIRONMENT

Geography/Social Studies BA  
Student/Faculty Design BA, BS  
Urban Planning and Sustainable Development BA  
\*These are degrees shared with other colleges at Western.

## College Admission and Advisement

### Admissions and Declaration of Major

- Completion of required preparatory course work
- A brief essay in response to a given question
- Academic performance (gpa)

Applications should be received by the Huxley College office (ES 539) by:

- April 25 for admission to summer or fall quarters
- October 6 for admission winter quarter
- January 15 for admission spring quarter

### Department Chairs

Dr. John M. Rybczyk Environmental Sciences  
Dr. Gigi Berardi Environmental Studies

## Other College Information

### Departments, Courses and Programs

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online Timetable of Classes, and Extended Education bulletins.

# Environmental Sciences

## Introduction

Chair: John M. Rybczyk

Environmental science draws on basic knowledge of the physical, chemical, biological and quantitative aspects of natural systems. The knowledge of how natural systems work is applied to solving problems largely created by human activities. Often these problems are represented by disturbances in the functioning of natural systems. Humans are altering their own life-support systems — the air, the water and the soil. Scales of disturbance range from the molecular and cellular to individuals, populations, ecosystems, and regional and global levels.

Graduates in environmental science enter a wide variety of career paths in local, state and federal governments, universities, and the private sector. Fields include environmental toxicology, environmental chemistry, terrestrial ecology, environmental impact assessment, watershed studies, air pollution control, solid and hazardous waste management, and marine pollution assessment. Many graduates choose to pursue advanced studies.

## Faculty

The interdisciplinary nature of environmental science is reflected in the wide-ranging expertise of the environmental science faculty. Oceanographers, toxicologists, chemists, biologists, limnologists, terrestrial ecologists and others work together as an interdisciplinary team to offer a curriculum grounded in the sciences, but oriented to the understanding and solution of environmental problems. Active engagement in research allows the faculty to bring an analysis of new knowledge into the classroom.

## Facilities and Equipment

Facilities are available for teaching laboratory courses and for student research projects. Students gain practical hands-on experience in data collection and analysis in both laboratory and field settings including terrestrial, aquatic, estuarine and marine environments. Specialized equipment is available for a wide variety of applications including toxicological and water quality monitoring (in a state-certified lab), atmospheric chemistry, dendrochronology, global positioning systems, wildlife telemetry, and forest and aquatic habitat characterization. Instrumentation includes an autoanalyzer for phosphorous, carbon and nitrogen, a gamma ray

detector for sediment dating and a remotely operated vehicle (ROV) equipped with a camera for underwater viewing of the marine environment. Extensive computer facilities include a Geographic Information Systems and Remote Sensing laboratory with state-of-the-art capabilities.

The Shannon Point Marine Center offers access to aquaria and a wide variety of laboratory and field sampling equipment for students interested in the marine environment.

The Canyon Lake Creek Community Forest provides access to 2,300 acres in the foothills of Mt. Baker.

In addition to these university owned facilities, our location provides unparalleled access to public lands that cover a range of environments including the alpine zone, dense old-growth forests, wetlands, lakes, streams, estuaries and the coast.

## Faculty

**JOHN M. RYBCZYK** (2000) Chair and Professor. BS (wildlife biology), Michigan State University; MS (ecosystem biology), Eastern Michigan University; PhD (oceanography and coastal science), Louisiana State University.

**JENISE M. BAUMAN** (2014) Assistant Professor. BS (horticulture), Eastern Kentucky University; MS (plant pathology), West Virginia University; PhD (botany) Miami University.

**CHARLES J. BARNHART** (2014) Assistant Professor. BS (physics and astronomy), University of Washington-Seattle; PhD (planetary geophysics), University of California-Santa Cruz.

**BRIAN L. BINGHAM** (1995) Professor. BS (zoology), MS (zoology), Brigham Young University; PhD (biology), Florida State University.

**LEO R. BODENSTEINER** (1995) Professor. BA (biology), Moorhead State University; MA (zoology), PhD (zoology), Southern Illinois University-Carbondale.

**ANDREW G. BUNN** (2006) Professor. BS (zoology) The Evergreen State College; MEM (resource ecology) Duke University; PhD (environmental science), Montana State University-Bozeman.

**REBECCA BUNN** (2010) Associate Professor. BS, (civil engineering), Michigan Technology Institute; MS, (environmental engineering) University of Colorado; PhD (land resources and environmental science), Montana State University.

**JAMES M. HELFIELD** (2005) Associate Professor. BA (English), Duke University; MSc (physical geography), University of Toronto; PhD (forest ecology), University of Washington.

**STEVEN J. HOLLENHORST** (2012) Professor and Dean, Huxley College of the Environment. BS, MS (recreation and park management), University of Oregon; PhD (recreation and park management),

## ENVIRONMENTAL SCIENCES

The Ohio State University.

**PETER S. HOMANN** (1996) Professor. BA (natural sciences) and BS (chemistry), Case Western Reserve University; MS (forest ecology), Yale School of Forestry and Environmental Studies; PhD (forest soils, nutrient cycling), University of Washington.

**WAYNE G. LANDIS** (1989) Professor and Director, Institute of Environmental Toxicology and Chemistry. BA (biology), Wake Forest University; MA (biology) and PhD (zoology), Indiana University.

**BROOKE A. LOVE** (2012) Assistant Professor, BS (engineering geology) Stanford University, PhD (chemical oceanography) University of Washington.

**ROBIN A. MATTHEWS** (1986) Professor and Director, Institute for Watershed Studies. BS (biology), University of California-Riverside; MS (environmental studies), Indiana University; PhD (botany/aquatic ecology), Virginia Polytechnic Institute and State University.

**JOHN F. McLAUGHLIN** (1996) Associate Professor. BA (biological sciences), BA (biochemistry), BA (integrated science program), Northwestern University; MS (biological sciences) and PhD (biological sciences, population biology), Stanford University.

**DAVID H. SHULL** (2003) Professor. BS (oceanography), University of Washington; MS (oceanography), University of Connecticut; PhD (environmental, coastal and ocean sciences), University of Massachusetts.

**RUTH M. SOFIELD** (2003) Professor. BA, West Virginia University; MS, McNeese State University; PhD (environmental science and engineering), Colorado School of Mines.

**DAVID O. WALLIN** (1995) Professor. BS (biology), Juniata College; MA (biology), The College of William and Mary; PhD (environmental science), University of Virginia.

### Emeritus Faculty

**JOHN T. (JACK) HARDY** Professor Emeritus of Environmental Sciences. BA, University of California-Santa Barbara; MA, Oregon State University; PhD, University of Washington

**J. RICHARD MAYER** Professor Emeritus of Environmental Science. BS, Union College; MA, Columbia University; PhD, Yale University.

**ROBERT L. MONAHAN** Professor Emeritus of Geography and Environmental Social Sciences. BA, University of Washington; MA, University of Michigan; PhD, McGill University.

**LYNN A. ROBBINS** Professor Emeritus of Environmental Studies. BA, University of Utah; MA, PhD, University of Oregon.

**BRADLEY F. SMITH** (1994) Professor Emeritus of Huxley College of the Environment. BA, MA, Western Michigan University; PhD, University of Michigan.

**WILLIAM C. SUMMERS** Professor Emeritus of Environmental Science. BS, ME, PhD, University of Minnesota.

**THOMAS A. TERICH** Professor Emeritus of Geography. BA and MA, California State University, Los Angeles; PhD, Oregon State University.

**HERBERT H. WEBBER** Professor Emeritus of Geography and Environmental Social Sciences. BSc, PhD, University of British Columbia.

**MING-HO YU** Professor Emeritus of Huxley College. BS, National Taiwan University; MS, PhD, Utah State University.

### Adjunct Faculty

**JAMES D. ALLAWAY**, PhD (natural resources, policy, and planning), Cornell University.

**JUDE APPLE**, Marine Scientist, Shannon Point Marine Center. PhD (marine and estuarine ecology), University of Maryland.

**PAUL DINNEL** Marine Scientist, Shannon Point Marine Center. PhD (fisheries), University of Washington.

**STEFAN FREELAN**, MS (geography), Western Washington University.

**JERRY FREILICH**, Research and Monitoring Coordinator, Olympic National Park, PhD (aquatic ecology), University of Georgia.

**APRIL MARKIEWICZ**, MS (environmental science), Western Washington University.

**BRADY OLSON**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**CLIFF RICE**, PhD, Research Scientist, Washington Department of Fish and Wildlife.

**MICHAEL G. STONER**, Environmental Manager, Port of Bellingham. MS (forest soils), University of Washington.

**SUZANNE STROM**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**KATHRYN L. VAN ALSTYNE**, Marine Scientist, Shannon Point Marine Center. PhD (marine ecology), University of Washington.

**SETH VIDANA**, WWU Sustainability Coordinator. MEd (environmental education), Western Washington University.

**SAUL WEISBERG**, Executive Director, North Cascades Institute. MS (biology), Western Washington University.

### Affiliated Faculty

**JOHN BOWER**, Associate Professor, Fairhaven College

**DON BURGESS**, Assistant Professor, SMATE

**CRAIG DUNN**, Associate Professor, Management, CBE

**DAN HAGEN**, Professor, Economics, CBE

**JILL HECKATHORN**, Senior Instructor, PE

**VICTOR NOLET**, Professor, Woodring College of



## Education

**ARUNAS OSLAPAS**, Professor, Engineering Technology  
**DEBRA J. SALAZAR**, Professor, Department of Political Science  
**DAVID SATTLER**, Professor, Department of Psychology

**STEPHEN D. SULKIN**, Professor and Director, Shannon Point  
**PHIL THOMPSON**, Assistant Professor, Economics, CBE  
**JOHN TUXILL**, Assistant Professor, Fairhaven College

## Bachelor of Science

### Environmental Science Extension Major, BS

Department of Environmental Sciences, Huxley College of the Environment

**133-138 credits (preparatory courses and major)**

#### Introduction

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better. This Environmental Science major is offered at off-site locations. Exact locations are listed in the Extended Education section of this catalog.

#### Contact Information

##### Department Chair

John Rybczyk  
 Environmental Studies 336  
 360-650-2081  
 John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
 Environmental Studies 539  
 360-650-3520  
 Kathryn.Patrick@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

If you are interested in the Environmental Science (Extension), BS major, you must first complete either: a Direct Transfer Agreement (DTA) Associate Degree or the equivalent to Western Washington University's General University Requirements. You can decide to become an Environmental Science major at any time. It is advantageous to plan for your major during your freshman or sophomore year, as prerequisite classes can be a part of earning your DTA. Contact the program manager (see below) to develop a plan for completing the prerequisite courses while earning your DTA. Your email can be added to the 'interested students' distribution list for Huxley College on the Peninsulas and you will begin to receive notifications, general announcements, and information about jobs, internships, or research opportunities.

Important information about admission to the ESCI major:

Admission is a competitive process and requires the coursework above and a satisfactory GPA in all coursework. You must then submit two applications: the Extension Undergraduate Program at <http://admissions.wwu.edu/print/EESPEExtensionUGApp.pdf> and a Huxley on the Peninsulas application that lists relevant experience and includes a 1-2 page essay describing your reasons for wanting to enter into the Environmental Science Extension major. Applications are obtained from the program manager and accepted in the spring for fall admittance.

If you have any questions, please contact Nancy Bluestein-Johnson, program manager, by phone (360-417-6521) or [Nancy.Bluestein-Johnson@wwu.edu](mailto:Nancy.Bluestein-Johnson@wwu.edu)

# ENVIRONMENTAL SCIENCES

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Preparatory Courses (48-53 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

### Major (85 credits)

- ESCI 325 - Fundamentals of Ecology
- ESCI 340 - Biostatistical Analysis
- ESCI 493 - Environmental Impact Assessment
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or the following series:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 326 - Climatology
- One course from (minimum of 10 credits):
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
- Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 328 - Introduction to Ecosystem Management
  - ESCI 361 - Water Quality
  - ESCI 407 - Forest Ecology
  - ESCI 429 - Stream Ecology
- Electives under advisement (28-35 credits)
  - A minimum of 20 credits from:
    - ESCI 300- or 400-level
  - Additional electives, if needed from:
    - BIOL 300- or 400-level
    - CHEM 300- or 400-level
    - ENVS 300- or 400-level

ESCI 300– or 400-level  
 GEOL 300- or 400-level  
 MATH 125 - Calculus and Analytic Geometry II  
 MATH 203 - Linear Algebra and Differential Equations I  
 MATH 204 - Elementary Linear Algebra  
 MATH 205 - Linear Algebra Workshop  
 MATH 307 - Mathematical Computing  
 MATH 309 - Introduction to Proof in Discrete Mathematics  
 MATH 224 - Multivariable Calculus and Geometry I  
 MATH 225 - Multivariable Calculus and Geometry II  
 MATH 226 - Limits and Infinite Series  
 MATH 300- or 400-level  
 Maximum 3 courses allowed from:  
 PHYS 114 - Principles of Physics I  
 PHYS 115 - Principles of Physics II  
 PHYS 116 - Principles of Physics III  
 PHYS 161 - Physics with Calculus I  
 PHYS 226 - Physics with Calculus IV  
 PHYS 300- or 400-level

## Environmental Science — Freshwater Ecology Emphasis, BS

Department of Environmental Sciences, Huxley College of the Environment

**133-138 credits**

### Introduction

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#### Contact Information

##### Department Chair

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 John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
 Environmental Studies 539  
 360-650-3520  
 Kathryn.Patrick@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Preparatory Courses (48-53 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II

## ENVIRONMENTAL SCIENCES

- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

### Major (85 credits)

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or the following series:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment
- One course from:
  - ESCI 325 - Fundamentals of Ecology
  - BIOL 325 - Ecology
- One course from:
  - ESCI 340 - Biostatistical Analysis
  - BIOL 340 - Biometrics
- One course from:
  - ESCI 454 - Science, Management and Outreach of Contaminated Sites
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
  - ESCI 494 - Marine Conservation
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands: Resource Management
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
  - Or other ENVS or ESCI approved course with a capstone (CPST) attribute.
- One course from: (minimum of 10 credits; maximum of 15 credits)
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
  - ESCI 498D - International Study
- One course from two of the following categories:
  - Human Ecology, Geography:
    - ENVS 303 - Human Ecology and Sustainability
    - ENVS 341 - Population and Resources
    - ENVS 343 - Urbanization: Processes and Patterns
  - Environmental Policy:
    - ENVS 304 - Environment and Resource Policy
    - ENVS 316 - Explorations in Environmental Studies
  - Environmental History, Philosophy, Ethics:
    - ENVS 305 - Environmental History and Ethics
- Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory

ESCI 361 - Water Quality  
 ESCI 407 - Forest Ecology  
 ESCI 408 - Field Methods in Wildlife Ecology  
 ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout AND  
 ESCI 411 - Habitat Assessment of Pacific Salmon and Trout  
 ESCI 421 - Fisheries Management Lab AND  
 ESCI 425 - Environmental Biology of Fishes  
 ESCI 423 - Reconstructing Climate  
 ESCI 426 - Marine Invertebrates and Their Environment  
 ESCI 428 - Freshwater Algae Bioindicators  
 ESCI 429 - Stream Ecology  
 ESCI 430 - Limnology and Limnology Lab  
 ESCI 440 - Wetlands Ecology  
 ESCI 442 - Introduction to Remote Sensing  
 ESCI 445 - Marine Geochemistry  
 ESCI 455 - Environmental Toxicology I AND  
 ESCI 457 - Environmental Toxicology Laboratory I  
 ESCI 456 - Environmental Toxicology II AND  
 ESCI 458 - Environmental Toxicology Laboratory II

□ Electives under advisement (28-37 credits)

A minimum of 20 credits from

ESCI 300- or 400-level

Additional electives, if needed from:

BIOL 300- or 400-level

CHEM 300- or 400-level

ENRG 270 - Energy Science I

ENRG 300- or 400-level

ENVS 300- or 400-level

ESCI 300- or 400-level

FAIR 330E - Ethnobotany

FAIR 434P - Advanced Studies in Field Science

GEOL 300- or 400-level

MATH 125 - Calculus and Analytic Geometry II

MATH 203 - Linear Algebra and Differential Equations I

MATH 204 - Elementary Linear Algebra

MATH 205 - Linear Algebra Workshop

MATH 224 - Multivariable Calculus and Geometry I

MATH 225 - Multivariable Calculus and Geometry II

MATH 226 - Limits and Infinite Series

MATH 300- or 400-level

Maximum 3 courses allowed from:

PHYS 114 - Principles of Physics I

PHYS 115 - Principles of Physics II

PHYS 116 - Principles of Physics III

PHYS 161 - Physics with Calculus I

PHYS 226 - Physics with Calculus IV

PHYS 300- or 400-level

Freshwater Ecology Emphasis (34 credits minimum)

Complete the following courses to fulfill the Freshwater Ecology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

□ A minimum of 25 credits from:

ESCI 302 - Environmental Pollution

ESCI 333 - Introduction to Environmental Toxicology

ESCI 361 - Water Quality

ESCI 407 - Forest Ecology

ESCI 408 - Field Methods in Wildlife Ecology

ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout

ESCI 411 - Habitat Assessment of Pacific Salmon and Trout

ESCI 421 - Fisheries Management Lab

## ENVIRONMENTAL SCIENCES

ESCI 425 - Environmental Biology of Fishes  
ESCI 428 - Freshwater Algae Bioindicators  
ESCI 429 - Stream Ecology  
ESCI 430 - Limnology and Limnology Lab  
ESCI 431 - Watershed Biogeochemistry  
ESCI 433 - Population Biology  
ESCI 439 - Conservation of Biological Diversity  
ESCI 440 - Wetlands Ecology  
ESCI 442 - Introduction to Remote Sensing  
ESCI 459 - Aquatic Toxicology  
ESCI 460 - Contaminant Movement in the Environment  
ESCI 463 - Wetlands for Wastewater Treatment  
ESCI 490 - Environmental Risk Assessment  
ESCI 492 - Climate Change

Additional electives, if needed, from:

Maximum 3 courses allowed from:

BIOL 403 - Physiological Ecology of Animals  
BIOL 404 - Plant Ecology  
BIOL 405 - Microbial Ecology  
BIOL 416 - Ecosystem Ecology and Global Change  
BIOL 452 - Systematic Botany  
BIOL 456 - Algae  
BIOL 462 - Entomology

Maximum 3 courses allowed from:

CHEM 300- or 400-level

Maximum 3 courses allowed from:

ENVS 320 - GIS I: Introduction to Geographic Information Science  
ENVS 327 - The Soil Environment  
ENVS 426 - Water Resources  
ENVS 427 - Soil Landscapes

Maximum 3 additional courses allowed from:

ENVS 300- or 400-level

FAIR 434P - Advanced Studies in Field Science

Maximum 3 courses allowed from:

GEOL 413 - Fluvial Geomorphology  
GEOL 415 - Sedimentology and Stratigraphy  
GEOL 472 - Surface Water Hydrology  
GEOL 473 - Hydrogeology  
GEOL 474 - Ground Water Contamination

Maximum 3 courses allowed from:

PHYS 114 - Principles of Physics I  
PHYS 115 - Principles of Physics II  
PHYS 116 - Principles of Physics III  
PHYS 161 - Physics with Calculus I  
PHYS 226 - Physics with Calculus IV

## Environmental Science — Marine Ecology Emphasis, BS

Department of Environmental Sciences, Huxley College of the Environment

**133-138 credits**

### Introduction

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

## Contact Information

**Department Chair**

John Rybczyk  
 Environmental Studies 336  
 360-650-2081  
 John.Rybczyk@wwu.edu

**Huxley College Admissions Advisor**

Kathryn Patrick  
 Environmental Studies 539  
 360-650-3520  
 Kathryn.Patrick@wwu.edu

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements****Preparatory Courses (48-53 credits)**

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

**Major (85 credits)**

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or one of the following series:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment
- One course from:
  - ESCI 325 - Fundamentals of Ecology
  - BIOL 325 - Ecology
- One course from:
  - ESCI 340 - Biostatistical Analysis
  - BIOL 340 - Biometrics
- One course from:
  - ESCI 454 - Science, Management and Outreach of Contaminated Sites
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
  - ESCI 494 - Marine Conservation

## ENVIRONMENTAL SCIENCES

ENVS 410 - Agroecology and Sustainable Agriculture

ENVS 430 - Borderlands: Resource Management

ENVS 474 - Planning for Sustainable Communities

ENVS 493 - Environmental Impact Assessment

ENVS 496 - Environmental Stewardship

Or other ENVS or ESCI approved course with a capstone (CPST) attribute.

- ❑ One course from: (minimum of 10 credits; maximum of 15 credits)

ESCI 498A - Senior Thesis

ESCI 498B - Internship

ESCI 498C - Senior Project

ESCI 498D - International Study

- ❑ One course from two of the following categories:

Human Ecology, Geography:

ENVS 303 - Human Ecology and Sustainability

ENVS 341 - Population and Resources

ENVS 343 - Urbanization: Processes and Patterns

Environmental Policy:

ENVS 304 - Environment and Resource Policy

ENVS 316 - Explorations in Environmental Studies

Environmental History, Philosophy, Ethics:

ENVS 305 - Environmental History and Ethics

- ❑ Two lecture/lab courses or combination of courses from:

ESCI 321 - Oceanography AND

ESCI 322 - Oceanography Laboratory

ESCI 361 - Water Quality

ESCI 407 - Forest Ecology

ESCI 408 - Field Methods in Wildlife Ecology

ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout AND

ESCI 411 - Habitat Assessment of Pacific Salmon and Trout

ESCI 421 - Fisheries Management Lab AND

ESCI 425 - Environmental Biology of Fishes

ESCI 423 - Reconstructing Climate

ESCI 426 - Marine Invertebrates and Their Environment

ESCI 428 - Freshwater Algae Bioindicators

ESCI 429 - Stream Ecology

ESCI 430 - Limnology and Limnology Lab

ESCI 440 - Wetlands Ecology

ESCI 442 - Introduction to Remote Sensing

ESCI 445 - Marine Geochemistry

ESCI 455 - Environmental Toxicology I AND

ESCI 457 - Environmental Toxicology Laboratory I

ESCI 456 - Environmental Toxicology II AND

ESCI 458 - Environmental Toxicology Laboratory II

- ❑ Electives under advisement (28-37 credits)

A minimum of 20 credits from

ESCI 300- or 400-level

Additional electives, if needed from:

BIOL 300- or 400-level

CHEM 300- or 400-level

ENRG 270 - Energy Science I

ENRG 300- or 400-level

ENVS 300- or 400-level

ESCI 300- or 400-level

FAIR 330E - Ethnobotany

FAIR 434P - Advanced Studies in Field Science

GEOL 300- or 400-level

MATH 125 - Calculus and Analytic Geometry II

MATH 203 - Linear Algebra and Differential Equations I

MATH 204 - Elementary Linear Algebra

MATH 205 - Linear Algebra Workshop

MATH 224 - Multivariable Calculus and Geometry I

MATH 225 - Multivariable Calculus and Geometry II



MATH 226 - Limits and Infinite Series  
 MATH 300- or 400-level  
 Maximum 3 courses allowed from:  
 PHYS 114 - Principles of Physics I  
 PHYS 115 - Principles of Physics II  
 PHYS 116 - Principles of Physics III  
 PHYS 161 - Physics with Calculus I  
 PHYS 226 - Physics with Calculus IV  
 PHYS 300- or 400-level

### Marine Ecology Emphasis (34 credits minimum)

Complete the following courses to fulfill the Marine Ecology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

- A minimum of 25 credits from:
  - ESCI 321 - Oceanography
  - ESCI 322 - Oceanography Laboratory
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout
  - ESCI 411 - Habitat Assessment of Pacific Salmon and Trout
  - ESCI 421 - Fisheries Management Lab
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 431 - Watershed Biogeochemistry
  - ESCI 432 - Topics in Marine Ecology
  - ESCI 433 - Population Biology
  - ESCI 439 - Conservation of Biological Diversity
  - ESCI 440 - Wetlands Ecology
  - ESCI 444 - Biogeochemistry of Marine Sediments
  - ESCI 445 - Marine Geochemistry
  - ESCI 455 - Environmental Toxicology I
  - ESCI 456 - Environmental Toxicology II
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 458 - Environmental Toxicology Laboratory II
  - ESCI 459 - Aquatic Toxicology
  - ESCI 460 - Contaminant Movement in the Environment
  - ESCI 463 - Wetlands for Wastewater Treatment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 492 - Climate Change
  - ESCI 494 - Marine Conservation
- Additional electives, if needed, from:
  - Maximum 3 courses allowed from:
    - BIOL 403 - Physiological Ecology of Animals
    - BIOL 405 - Microbial Ecology
    - BIOL 407 - Marine Ecology
    - BIOL 410 - Animal Behavior
    - BIOL 416 - Ecosystem Ecology and Global Change
    - BIOL 456 - Algae
    - BIOL 460 - Invertebrate Zoology
    - BIOL 464 - Biology of Marine Mammals
  - Maximum 3 courses allowed from:
    - CHEM 300- or 400-level
  - Maximum 3 courses allowed from:
    - ENVS 300- or 400-level
- GEOL 340 - Geological Oceanography
  - Maximum 3 courses allowed from:
    - MATH 125 - Calculus and Analytic Geometry II
    - MATH 204 - Elementary Linear Algebra
    - MATH 224 - Multivariable Calculus and Geometry I
    - MATH 331 - Ordinary Differential Equations

## ENVIRONMENTAL SCIENCES

Maximum 3 courses allowed from:  
PHYS 114 - Principles of Physics I  
PHYS 115 - Principles of Physics II  
PHYS 116 - Principles of Physics III  
PHYS 161 - Physics with Calculus I  
PHYS 226 - Physics with Calculus IV

### Environmental Science — Terrestrial Ecology Emphasis, BS

Department of Environmental Sciences, Huxley College of the Environment

**133-138 credits**

#### Introduction

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

#### Contact Information

##### Department Chair

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360-650-2081  
John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Preparatory Courses (48-53 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

##### Major (85 credits)

- Choose either:

CHEM 251 - Elementary Organic Chemistry

or the following series:

CHEM 351 - Organic Chemistry

CHEM 352 - Organic Chemistry

CHEM 354 - Organic Chemistry Laboratory I

One course from:

ESCI 321 - Oceanography

ESCI 435 - Landscape Ecology

ESCI 492 - Climate Change

ENVS 326 - Climatology

ENVS 327 - The Soil Environment

One course from:

ESCI 325 - Fundamentals of Ecology

BIOL 325 - Ecology

One course from:

ESCI 340 - Biostatistical Analysis

BIOL 340 - Biometrics

One course from:

ESCI 454 - Science, Management and Outreach of Contaminated Sites

ESCI 470 - Ecological Restoration

ESCI 490 - Environmental Risk Assessment

ESCI 491 - Oceanography of Puget Sound

ESCI 493 - Environmental Impact Assessment

ESCI 494 - Marine Conservation

ENVS 410 - Agroecology and Sustainable Agriculture

ENVS 430 - Borderlands: Resource Management

ENVS 474 - Planning for Sustainable Communities

ENVS 493 - Environmental Impact Assessment

ENVS 496 - Environmental Stewardship

Or other ENVS or ESCI approved course with a capstone (CPST) attribute.

One course from: (minimum of 10 credits; maximum of 15 credits)

ESCI 498A - Senior Thesis

ESCI 498B - Internship

ESCI 498C - Senior Project

ESCI 498D - International Study

One course from two of the following categories:

Human Ecology, Geography:

ENVS 303 - Human Ecology and Sustainability

ENVS 341 - Population and Resources

ENVS 343 - Urbanization: Processes and Patterns

Environmental Policy:

ENVS 304 - Environment and Resource Policy

ENVS 320 - GIS I: Introduction to Geographic Information Science

Environmental History, Philosophy, Ethics:

ENVS 305 - Environmental History and Ethics

Two lecture/lab courses or combination of courses from:

ESCI 321 - Oceanography AND

ESCI 322 - Oceanography Laboratory

ESCI 361 - Water Quality

ESCI 407 - Forest Ecology

ESCI 408 - Field Methods in Wildlife Ecology

ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout AND

ESCI 411 - Habitat Assessment of Pacific Salmon and Trout

ESCI 421 - Fisheries Management Lab AND

ESCI 425 - Environmental Biology of Fishes

ESCI 423 - Reconstructing Climate

ESCI 426 - Marine Invertebrates and Their Environment

ESCI 428 - Freshwater Algae Bioindicators

ESCI 429 - Stream Ecology

ESCI 430 - Limnology and Limnology Lab

ESCI 440 - Wetlands Ecology

## ENVIRONMENTAL SCIENCES

- ESCI 442 - Introduction to Remote Sensing
- ESCI 445 - Marine Geochemistry
- ESCI 455 - Environmental Toxicology I AND
- ESCI 457 - Environmental Toxicology Laboratory I
- ESCI 456 - Environmental Toxicology II AND
- ESCI 458 - Environmental Toxicology Laboratory II

Electives under advisement (28-37 credits)

A minimum of 20 credits from

ESCI 300- or 400-level

Additional electives, if needed from:

BIOL 300- or 400-level

CHEM 300- or 400-level

ENRG 270 - Energy Science I

ENRG 300- or 400-level

ENVS 300- or 400-level

ESCI 300- or 400-level

FAIR 330E - Ethnobotany

FAIR 434P - Advanced Studies in Field Science

GEOL 300- or 400-level

MATH 125 - Calculus and Analytic Geometry II

MATH 203 - Linear Algebra and Differential Equations I

MATH 204 - Elementary Linear Algebra

MATH 205 - Linear Algebra Workshop

MATH 224 - Multivariable Calculus and Geometry I

MATH 225 - Multivariable Calculus and Geometry II

MATH 226 - Limits and Infinite Series

MATH 300- or 400-level

Maximum 3 courses allowed from:

PHYS 114 - Principles of Physics I

PHYS 115 - Principles of Physics II

PHYS 116 - Principles of Physics III

PHYS 161 - Physics with Calculus I

PHYS 226 - Physics with Calculus IV

PHYS 300- or 400-level

### Terrestrial Ecology Emphasis (34 credit minimum)

Complete the following courses to fulfill the Terrestrial Ecology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

A minimum of 24 credits from

ENVS 327 - The Soil Environment

ENVS 427 - Soil Landscapes

ESCI 330 - Natural History of the Pacific Northwest

ESCI 392 - Introduction to Global Change

ESCI 407 - Forest Ecology

ESCI 408 - Field Methods in Wildlife Ecology

ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout

ESCI 411 - Habitat Assessment of Pacific Salmon and Trout

ESCI 423 - Reconstructing Climate

ESCI 431 - Watershed Biogeochemistry

ESCI 433 - Population Biology

ESCI 435 - Landscape Ecology

ESCI 439 - Conservation of Biological Diversity

ESCI 442 - Introduction to Remote Sensing

ESCI 492 - Climate Change

Additional electives, if needed, from:

Maximum 4 courses allowed from:

BIOL 326 - Ecology Laboratory

BIOL 403 - Physiological Ecology of Animals

BIOL 404 - Plant Ecology

BIOL 410 - Animal Behavior

BIOL 416 - Ecosystem Ecology and Global Change  
 BIOL 432 - Evolutionary Biology  
 BIOL 450 - Plant Anatomy  
 BIOL 451 - Developmental Biology of Plants  
 BIOL 452 - Systematic Botany  
 BIOL 460 - Invertebrate Zoology  
 BIOL 462 - Entomology  
 BIOL 465 - Vertebrate Zoology  
 BIOL 467 - Comparative Vertebrate Physiology  
 BIOL 468 - Comparative Vertebrate Physiology Laboratory  
 BIOL 479 - Plant Physiology  
 BIOL 482 - Developmental Biology of Animals

Maximum 3 courses allowed from:

CHEM 300- or 400-level

Maximum 4 courses allowed from:

ENVS 320 - GIS I: Introduction to Geographic Information Science  
 ENVS 326 - Climatology  
 ENVS 372 - Natural Hazards Planning  
 ENVS 420 - GIS III: Analysis and Modeling  
 ENVS 421 - GIS IV: Advanced GIS Applications  
 ENVS 422 - Advanced Spatial Analysis  
 ENVS 428 - Biogeography

Maximum 4 courses allowed from:

ESCI 321 - Oceanography  
 ESCI 361 - Water Quality  
 ESCI 421 - Fisheries Management Lab  
 ESCI 429 - Stream Ecology  
 ESCI 430 - Limnology and Limnology Lab  
 ESCI 440 - Wetlands Ecology  
 ESCI 455 - Environmental Toxicology I  
 ESCI 456 - Environmental Toxicology II  
 ESCI 457 - Environmental Toxicology Laboratory I  
 ESCI 458 - Environmental Toxicology Laboratory II  
 ESCI 459 - Aquatic Toxicology  
 ESCI 462 - Air Pollution  
 ESCI 490 - Environmental Risk Assessment

Maximum 3 courses allowed from:

ENVS 300- or 400-level

Maximum 3 courses allowed from:

FAIR 330E - Ethnobotany  
 FAIR 434P - Advanced Studies in Field Science

Maximum 3 courses allowed from:

GEOL 310 - Geomorphology  
 GEOL 318 - Structural Geology  
 GEOL 413 - Fluvial Geomorphology  
 GEOL 415 - Sedimentology and Stratigraphy  
 GEOL 470 - Landslides and Slope Stability  
 GEOL 472 - Surface Water Hydrology  
 GEOL 473 - Hydrogeology  
 GEOL 474 - Ground Water Contamination

Maximum 3 courses allowed from:

PHYS 114 - Principles of Physics I  
 PHYS 115 - Principles of Physics II  
 PHYS 116 - Principles of Physics III  
 PHYS 161 - Physics with Calculus I  
 PHYS 226 - Physics with Calculus IV

## Environmental Science — Toxicology Emphasis, BS

Department of Environmental Sciences, Huxley College of the Environment

# ENVIRONMENTAL SCIENCES

**133-138 credits**

## Introduction

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

### Contact Information

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Kathryn Patrick  
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### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Preparatory Courses (48-53 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

### Major (85 credits)

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or the following series:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment
- One course from:

- BIOL 325 - Ecology
- ESCI 325 - Fundamentals of Ecology
- One course from:
  - BIOL 340 - Biometrics
  - ESCI 340 - Biostatistical Analysis
- One course from:
  - ESCI 454 - Science, Management and Outreach of Contaminated Sites
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
  - ESCI 494 - Marine Conservation
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands: Resource Management
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
 Or other ENVS or ESCI approved course with a capstone (CPST) attribute.
- One course from: (minimum of 10 credits; maximum of 15 credits)
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
  - ESCI 498D - International Study
- One course from two of the following categories:
  - Human Ecology, Geography:
    - ENVS 303 - Human Ecology and Sustainability
    - ENVS 341 - Population and Resources
    - ENVS 343 - Urbanization: Processes and Patterns
  - Environmental Policy:
    - ENVS 304 - Environment and Resource Policy
    - ENVS 316 - Explorations in Environmental Studies
  - Environmental History, Philosophy, Ethics:
    - ENVS 305 - Environmental History and Ethics
- Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout AND
  - ESCI 411 - Habitat Assessment of Pacific Salmon and Trout
  - ESCI 421 - Fisheries Management Lab AND
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Reconstructing Climate
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 428 - Freshwater Algae Bioindicators
  - ESCI 429 - Stream Ecology
  - ESCI 430 - Limnology and Limnology Lab
  - ESCI 440 - Wetlands Ecology
  - ESCI 442 - Introduction to Remote Sensing
  - ESCI 445 - Marine Geochemistry
  - ESCI 455 - Environmental Toxicology I AND
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 456 - Environmental Toxicology II AND
  - ESCI 458 - Environmental Toxicology Laboratory II
- Electives under advisement (28-37 credits)
  - A minimum of 20 credits from:
    - ESCI 300- or 400-level
  - Additional electives, if needed from:
    - BIOL 300- or 400-level

## ENVIRONMENTAL SCIENCES

CHEM 300- or 400-level  
ENRG 270 - Energy Science I  
ENRG 300- or 400-level  
ENVS 300- or 400-level  
ESCI 300- or 400-level  
FAIR 330E - Ethnobotany  
FAIR 434P - Advanced Studies in Field Science  
GEOL 300- or 400-level  
MATH 125 - Calculus and Analytic Geometry II  
MATH 203 - Linear Algebra and Differential Equations I  
MATH 204 - Elementary Linear Algebra  
MATH 205 - Linear Algebra Workshop  
MATH 224 - Multivariable Calculus and Geometry I  
MATH 225 - Multivariable Calculus and Geometry II  
MATH 226 - Limits and Infinite Series  
MATH 300- or 400-level  
Maximum 3 courses allowed from:  
PHYS 114 - Principles of Physics I  
PHYS 115 - Principles of Physics II  
PHYS 116 - Principles of Physics III  
PHYS 161 - Physics with Calculus I  
PHYS 226 - Physics with Calculus IV  
PHYS 300- or 400-level

### Toxicology Emphasis (34 credit minimum)

Complete the following courses to fulfill the Toxicology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

- ESCI 455 - Environmental Toxicology I
- ESCI 456 - Environmental Toxicology II
- Minimum of 2 courses from:
  - ESCI 321 - Oceanography
  - ESCI 340 - Biostatistical Analysis
  - ESCI 361 - Water Quality
  - ESCI 421 - Fisheries Management Lab
  - ESCI 428 - Freshwater Algae Bioindicators
  - ESCI 430 - Limnology and Limnology Lab
  - ESCI 431 - Watershed Biogeochemistry
  - ESCI 433 - Population Biology
  - ESCI 435 - Landscape Ecology
  - ESCI 439 - Conservation of Biological Diversity
  - ESCI 444 - Biogeochemistry of Marine Sediments
  - ESCI 462 - Air Pollution
  - ESCI 492 - Climate Change
- Minimum of 4 courses, including 1 lab from:
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 453 - Science and Management of Contaminated Sites
  - ESCI 454 - Science, Management and Outreach of Contaminated Sites
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 458 - Environmental Toxicology Laboratory II
  - ESCI 459 - Aquatic Toxicology
  - ESCI 460 - Contaminant Movement in the Environment
  - ESCI 490 - Environmental Risk Assessment
- Additional electives, if needed, from:
  - BIOL 321 - Genetics
  - BIOL 322 - Genetics Lab
  - BIOL 405 - Microbial Ecology
  - CHEM 333 - Analytical Chemistry
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry



CHEM 353 - Organic Chemistry  
 CHEM 354 - Organic Chemistry Laboratory I  
 CHEM 375 - Elements of Biochemistry  
 CHEM 471 - Biochemistry I  
 ENVS 320 - GIS I: Introduction to Geographic Information Science  
 ENVS 326 - Climatology  
 ENVS 327 - The Soil Environment  
 Maximum 6 additional courses allowed from:  
 ENVS 300- or 400-level  
 Maximum 3 courses from:  
 PHYS 114 - Principles of Physics I  
 PHYS 115 - Principles of Physics II  
 PHYS 116 - Principles of Physics III  
 PHYS 161 - Physics with Calculus I  
 PHYS 226 - Physics with Calculus IV

## Environmental Science, BS

Department of Environmental Sciences, Huxley College of the Environment

**133-138 credits**

### Introduction

Environmental Science draws on basic knowledge of the physical, chemical, biological and quantitative aspects of natural systems. The knowledge of how natural systems work is applied to solving problems largely created by human activities. Often these problems are represented by disturbances in the functioning of natural systems. Humans are altering their own life-support systems – the air, the water and soil. The scale of disturbance ranges from the molecular and cellular to individuals, populations, ecosystems, and regional and global levels.

The Environmental Science major will acquire the scientific and problem solving skills needed to conserve and restore the natural environment. Students of Environmental Science will go directly into an environmental science career or on to graduate school to further their study.

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

### Why Consider an Environmental Science Major?

Are you excited by how natural systems work? Do you want to solve the problems of the natural environment caused by human activities? Do you love to work outdoors? Do you love the sciences and scientific inquiry? Then Environmental Science is for you.

#### Contact Information

##### Department Chair

John Rybczyk  
 Environmental Studies 336  
 360-650-2081  
 John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
 Environmental Studies 539  
 360-650-3520  
 Kathryn.Patrick@wwu.edu

#### Sample Careers

Wildlife Biologist | Naturalist | Endangered Species Biologist | Environmental Inspector | Environmental Scientist | Fisheries Biologist | Marine Biologist | Safety and Health Specialist | Park Ranger | Aquatic Toxicologist | Wetlands Ecologist | Biological Survey | Water Resources Specialist | Environmental Chemist | Soil Conservation Specialist

#### Major/Career Resources

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[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Admission and Declaration of Major

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Preparatory Courses (48-53 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

#### Major (85 credits)

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or the following series:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment
- One course from:
  - ESCI 325 - Fundamentals of Ecology
  - BIOL 325 - Ecology
- One course from:
  - ESCI 340 - Biostatistical Analysis
  - BIOL 340 - Biometrics
- One course from:
  - ESCI 454 - Science, Management and Outreach of Contaminated Sites
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
  - ESCI 494 - Marine Conservation
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands: Resource Management
  - ENVS 474 - Planning for Sustainable Communities

- ENVS 493 - Environmental Impact Assessment
- ENVS 496 - Environmental Stewardship
- ☐ One course from: (minimum of 10 credits; maximum of 15 credits)
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
  - ESCI 498D - International Study
- ☐ One course from two of the following categories:
  - Human Ecology, Geography:
    - ENVS 303 - Human Ecology and Sustainability
    - ENVS 341 - Population and Resources
    - ENVS 343 - Urbanization: Processes and Patterns
  - Environmental Policy:
    - ENVS 304 - Environment and Resource Policy
    - ENVS 316 - Explorations in Environmental Studies
  - Environmental History, Philosophy, Ethics:
    - ENVS 305 - Environmental History and Ethics
- ☐ Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout AND
  - ESCI 411 - Habitat Assessment of Pacific Salmon and Trout
  - ESCI 421 - Fisheries Management Lab AND
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Reconstructing Climate
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 428 - Freshwater Algae Bioindicators
  - ESCI 429 - Stream Ecology
  - ESCI 430 - Limnology and Limnology Lab
  - ESCI 440 - Wetlands Ecology
  - ESCI 442 - Introduction to Remote Sensing
  - ESCI 445 - Marine Geochemistry
  - ESCI 455 - Environmental Toxicology I AND
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 456 - Environmental Toxicology II AND
  - ESCI 458 - Environmental Toxicology Laboratory II
- ☐ Electives under advisement (28-37 credits)
  - A minimum of 20 credits from
  - ESCI 300- or 400-level
  - Additional electives, if needed from:
  - BIOL 300- or 400-level
  - CHEM 300- or 400-level
  - ENRG 270 - Energy Science I
  - ENRG 300- or 400-level
  - ENVS 300- or 400-level
  - ESCI 300- or 400-level
  - FAIR 330E - Ethnobotany
  - FAIR 434P - Advanced Studies in Field Science
  - GEOL 300- or 400-level
  - MATH 125 - Calculus and Analytic Geometry II
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 204 - Elementary Linear Algebra
  - MATH 205 - Linear Algebra Workshop
  - MATH 224 - Multivariable Calculus and Geometry I
  - MATH 225 - Multivariable Calculus and Geometry II
  - MATH 226 - Limits and Infinite Series
  - MATH 300- or 400-level
  - Maximum 3 courses allowed from:
  - PHYS 114 - Principles of Physics I

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PHYS 115 - Principles of Physics II  
PHYS 116 - Principles of Physics III  
PHYS 161 - Physics with Calculus I  
PHYS 226 - Physics with Calculus IV  
PHYS 300- or 400-level

### Student/Faculty Designed, BS (Huxley College of the Environment)

Department of Environmental Sciences, Huxley College of the Environment

#### Introduction

Students who wish to design their own majors within Huxley College should obtain complete guidelines from the Undergraduate Advisors located in ES 539, the Huxley College office. The major must be developed with faculty advisement and must be approved by two faculty members and the Huxley College Curriculum Committee at least four quarters before the student's anticipated graduation.

#### Contact Information

##### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Sample Careers

Career choices are determined by the student's interests.

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students who wish to pursue a BS with a Student/Faculty Designed major must complete the preparatory courses and apply to the Environmental Science major first. The declaration of a Student/Faculty Designed major degree occurs after approval of the title and coursework by Huxley College's Curriculum Committee and the University's Academic Coordinating Commission.

It is strongly advised that students meet with the Huxley College admissions advisor as they begin their preparatory classes. Students can also declare as an Environmental Science pre-major during their first advising meeting.

Once the student has completed the preparatory courses for the Environmental Science major they can submit their plan for their self-designed major to the Huxley College Curriculum Coordinating Committee with a brief written explanation of their major and the signatures of two faculty advisors. This must be done at least four quarters before graduation.

The Academic Coordinating Commission, a standing committee of Western's Faculty Senate, must provide final approval of a Student/Faculty Designed major title.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Master of Science

### Environmental Science, Environmental Toxicology & Chemistry, Thesis, MS

Department of Environmental Sciences, Huxley College of the Environment

## Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Bauman, Jenise M.**, Assistant Professor. BS (horticulture), Eastern Kentucky University; MS (plant pathology), West Virginia University; PhD (botany) Miami University.

**Barnhart, Charles J.**, Assistant Professor. BS (physics and astronomy), University of Washington; PhD (planetary geophysics), University of California-Santa Cruz.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Darby, Kate J.**, PhD, social and environmental justice, environmental justice pedagogy in higher education, sustainable food systems and urban socio-ecological systems.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Kamel, Nabil**, PhD

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Laniga, Tamara (Tammi)**, PhD, federal land use policy and planning, collaborative planning, community economic development, and the social components of bioenergy development.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

## Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems. This specialization focuses on the transport, fate and toxic effects of chemicals in the environment, laboratory testing and field work, chemical analytical measurement of pollutants and the influence of nutritional factors on pollutant toxicity. Studies of chemical fate and toxicity at the biochemical, organismal, population and ecosystem levels.

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## Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

## Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

## Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.

**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants should submit their application materials by February 1 and indicate in the statement of purpose how the prerequisites listed above have or will be met before starting the program.

**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

## Supporting Materials:

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
- The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website [huxley.wvu.edu](http://huxley.wvu.edu) prior to contacting potential faculty advisors; students are admitted into the program only upon agreement of potential faculty advisors.

## Program Requirements (45-69 credits)

Minimum of 45 credits are required, including:

- ESCI 501 (3);
- 30 credits of course work, including three courses from the area of specialization, or course substitutions, under advisement;
- 12 credits of ESCI 690 (thesis).

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

## Specialization courses:

- ESCI 450
- ESCI 460 - Contaminant Movement in the Environment

- ❑ ESCI 500 (when toxicology/chemistry topic)
- ❑ ESCI 502 - Experimental Design
- ❑ ESCI 503 - Statistical Ecology
- ❑ ESCI 517 (when toxicology/chemistry topic)
- ❑ ESCI 533 - Advanced Population Biology
- ❑ ESCI 545 (when toxicology/chemistry topic)
- ❑ ESCI 555 - Advanced Environmental Toxicology I
- ❑ ESCI 556 - Advanced Environmental Toxicology II
- ❑ ESCI 557 - Advanced Environmental Toxicology Laboratory I
- ❑ ESCI 558 - Advanced Environmental Toxicology Laboratory II
- ❑ ESCI 559 - Aquatic Toxicology
- ❑ ESCI 562 - Advanced Air Pollution
- ❑ ESCI 590 - Advanced Environmental Risk Assessment
- ❑ ESCI 597 (when toxicology/chemistry topic)
- ❑ ESCI 599 - Graduate Environmental Studies Seminar (when toxicology/chemistry topic)

## Environmental Science, Freshwater Ecology, Thesis, MS

Department of Environmental Sciences, Huxley College of the Environment

### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Bauman, Jenise M.**, Assistant Professor. BS (horticulture), Eastern Kentucky University; MS (plant pathology), West Virginia University; PhD (botany) Miami University.

**Barnhart, Charles J.**, Assistant Professor. BS (physics and astronomy), University of Washington; PhD (planetary geophysics), University of California-Santa Cruz.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Darby, Kate J.**, PhD, social and environmental justice, environmental justice pedagogy in higher education, sustainable food systems and urban socio-ecological systems.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Kamel, Nabil**, PhD

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Laniga, Tamara (Tammi)**, PhD, federal land use policy and planning, collaborative planning, community economic development, and the social components of bioenergy development.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

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**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

### Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems. This specialization focuses on the study of physical, chemical and biological processes in freshwater systems, including lakes, streams and watersheds.

### Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

### Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

### Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.

**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants should submit their application materials by February 1 and indicate in the statement of purpose how the prerequisites listed above have or will be met before starting the program.

**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

### Supporting Materials:

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
- The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website [huxley.wvu.edu](http://huxley.wvu.edu) prior to contacting potential faculty advisors; students are admitted into the program only upon agreement of potential faculty advisors.

### Program Requirements (45-69 credits)

Minimum of 45 credits are required, including:

- ESCI 501 (3);



- 30 credits of course work, including three courses from the area of specialization, or course substitutions, under advisement;
- 12 credits of ESCI 690 (thesis)

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

## Specialization courses:

- ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout
- ESCI 411 - Habitat Assessment of Pacific Salmon and Trout
- ESCI 421 - Fisheries Management Lab
- ESCI 425 - Environmental Biology of Fishes
- ESCI 428 - Freshwater Algae Bioindicators
- ESCI 431 - Watershed Biogeochemistry
- ESCI 463 - Wetlands for Wastewater Treatment
- ESCI 500 (when freshwater topic)
- ESCI 502 - Experimental Design
- ESCI 503 - Statistical Ecology
- ESCI 517 (when freshwater topic)
- ESCI 522 - Estuarine Ecology
- ESCI 529 - Advanced Stream Ecology
- ESCI 530 - Advanced Limnology
- ESCI 533 - Advanced Population Biology
- ESCI 540 - Wetlands Ecology
- ESCI 545 (when freshwater topic)
- ESCI 559 - Aquatic Toxicology
- ESCI 597 (when freshwater topic)
- ESCI 599 - Graduate Environmental Studies Seminar (when freshwater topic)

## Environmental Science, Marine and Estuarine Science (MES), Thesis, MS

Department of Environmental Sciences, Huxley College of the Environment

### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Bauman, Jenise M.**, Assistant Professor. BS (horticulture), Eastern Kentucky University; MS (plant pathology), West Virginia University; PhD (botany) Miami University.

**Barnhart, Charles J.**, Assistant Professor. BS (physics and astronomy), University of Washington; PhD (planetary geophysics), University of California-Santa Cruz.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Darby, Kate J.**, PhD, social and environmental justice, environmental justice pedagogy in higher education,

## ENVIRONMENTAL SCIENCES

sustainable food systems and urban socio-ecological systems.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Kamel, Nabil**, PhD

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Laniga, Tamara (Tammi)**, PhD, federal land use policy and planning, collaborative planning, community economic development, and the social components of bioenergy development.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Meliou, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

### Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems.

**The Marine and Estuarine Science (MES) option** is offered through Huxley College of the Environment, the Department of Biology, and Shannon Point Marine Center. Students graduating from the program will have an understanding of biota and topical management issues, and fundamental biological and chemical oceanographic processes. Curriculum Coordinator: Dr. Brian L. Bingham

### Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

### Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

### Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.

**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants should submit their application materials by February 1 and indicate in the statement of purpose how the prerequisites listed above have or will be met before starting the program.

**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

**Supporting Materials:**

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
- The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website [huxley.wvu.edu](http://huxley.wvu.edu) prior to contacting potential faculty advisors; students are admitted into the program only upon agreement of potential faculty advisors.

**Program Requirements (45 to 69 credits)**

a minimum of 45 credits are required, including:

- ESCI 501 (3);
- 30 credits of course work, including three courses from the area of specialization, or course substitutions, under advisement;
- 12 credits of ESCI 690 (thesis).

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

**Specialization courses:**

ESCI 421 - Fisheries Management Lab  
 ESCI 425 - Environmental Biology of Fishes  
 ESCI 426 - Marine Invertebrates and Their Environment  
 ESCI 432 - Topics in Marine Ecology  
 ESCI 445 - Marine Geochemistry  
 ESCI 463 - Wetlands for Wastewater Treatment  
 ESCI 491 - Oceanography of Puget Sound  
 ESCI 500 (when marine topic)  
 ESCI 502 - Experimental Design  
 ESCI 503 - Statistical Ecology  
 ESCI 517 (when marine topic)  
 ESCI 521 - Biological Oceanography  
 ESCI 522 - Estuarine Ecology  
 ESCI 533 - Advanced Population Biology  
 ESCI 540 - Wetlands Ecology  
 ESCI 542 - Remote Sensing  
 ESCI 545 (when marine topic)  
 ESCI 597 (when marine topic)  
 ESCI 599 - Graduate Environmental Studies Seminar (when marine topic)  
 BIOL 508 - Advanced Topics in Marine Biology  
 BIOL 545 (when marine topic)

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Additional requirement in MES option:

BIOL 505 - Current Research in Science

Visit the Marine and Estuarine Science graduate program website, <http://www.wvu.edu/mesp/index.shtml>, for a complete list of participating faculty and their research interests.

### **Environmental Science, Regional, Global and Terrestrial Ecosystems, Thesis, MS**

Department of Environmental Sciences, Huxley College of the Environment

#### **Graduate Faculty**

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Bauman, Jenise M.**, Assistant Professor. BS (horticulture), Eastern Kentucky University; MS (plant pathology), West Virginia University; PhD (botany) Miami University.

**Barnhart, Charles J.**, Assistant Professor. BS (physics and astronomy), University of Washington; PhD (planetary geophysics), University of California-Santa Cruz.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Darby, Kate J.**, PhD, social and environmental justice, environmental justice pedagogy in higher education, sustainable food systems and urban socio-ecological systems.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestriaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Kamel, Nabil**, PhD

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Lanning, Tamara (Tammi)**, PhD, federal land use policy and planning, collaborative planning, community economic development, and the social components of bioenergy development.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

## Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems. This specialization focuses on terrestrial ecosystems and on large-scale regional and global environmental problems. Examination of natural ecosystems, resources and the effects of large-scale change.

## Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

## Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

## Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.

**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants should submit their application materials by February 1 and indicate in the statement of purpose how the prerequisites listed above have or will be met before starting the program.

**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

## Supporting Materials:

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
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## Program Requirements (45 to 69 credits)

Minimum of 45 credits are required, including:

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- 12 credits of ESCI 690 (thesis).

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public

## ENVIRONMENTAL SCIENCES

presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

### Specialization courses:

ESCI 408 - Field Methods in Wildlife Ecology  
ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout  
ESCI 411 - Habitat Assessment of Pacific Salmon and Trout  
ESCI 423 - Reconstructing Climate  
ESCI 431 - Watershed Biogeochemistry  
ESCI 500 (when terrestrial ecosystem topic)  
ESCI 502 - Experimental Design  
ESCI 503 - Statistical Ecology  
ESCI 507 - Advanced Forest Ecology  
ESCI 517 (when terrestrial ecosystem topic)  
ESCI 533 - Advanced Population Biology  
ESCI 535 - Advanced Landscape Ecology  
ESCI 536 - Environmental Impact Assessment Practicum  
ESCI 539 - Advanced Conservation of Biological Diversity  
ESCI 542 - Remote Sensing  
ESCI 545 (when terrestrial ecosystem topic)  
ESCI 562 - Advanced Air Pollution  
ESCI 590 - Advanced Environmental Risk Assessment  
ESCI 592 - Climate Change  
ESCI 597 (when terrestrial ecosystem topic)  
ESCI 599 - Graduate Environmental Studies Seminar (when terrestrial ecosystem topic)  
EGEO 504 - Geographic Methods and Techniques  
EGEO 535 - Environmental Problems and Regional Development  
EGEO 552 - Advanced GIS

## Minor

### Environmental Science Minor

Department of Environmental Sciences, Huxley College of the Environment

#### 24-29 credits

##### Contact Information

##### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ESCI 101 - Environmental Studies: A Scientific Approach
- ESCI 302 - Environmental Pollution

- ❑ ESCI 325 - Fundamentals of Ecology
- ❑ One lab/lecture course or combination of courses from:
  - ESCI 321 - Oceanography and
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout and
  - ESCI 411 - Habitat Assessment of Pacific Salmon and Trout
  - ESCI 421 - Fisheries Management Lab and
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Reconstructing Climate
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 429 - Stream Ecology
  - ESCI 430 - Limnology and Limnology Lab
  - ESCI 440 - Wetlands Ecology
  - ESCI 442 - Introduction to Remote Sensing
  - ESCI 445 - Marine Geochemistry
  - ESCI 455 - Environmental Toxicology I and
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 456 - Environmental Toxicology II and
  - ESCI 458 - Environmental Toxicology Laboratory II
- ❑ One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment
- ❑ Electives under advisement (6 credits)
  - BIOL 326 - Ecology Laboratory
  - BIOL 340 - Biometrics
  - ESCI 300- and 400-level
 Maximum 1 course allowed from:
  - ENVS 320 - GIS I: Introduction to Geographic Information Science
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment

## Environmental Sciences Courses

### ESCI 101 - Environmental Studies: A Scientific Approach

An introduction to environmental studies which stresses a scientific approach toward understanding the nature and scope of contemporary problems in man's environment. The course reflects application of physical, chemical, biological and geologic principles to define ecological change, both natural and man-made.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

### ESCI 204 - The Oceans: Topics in Marine Science

Introduction to marine life and environments from the polar regions to the tropics and from the near

surface to the ocean depths. Examines the role of the ocean in controlling climate and supporting a great diversity of life forms. Considers all the major marine ecosystems, their use by humans and the impacts of humans.

**Prerequisites & Notes:** 2 quarters college-level natural science courses; MATH 112

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SCI

### ESCI 205 - Distinguished Scholar Program Seminar: Ds

Seminar and field course work with various Environmental topics. Equivalent to ESTU 205 and repeatable with different topics up to 4 credits combined. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College Distinguished Scholars Program

**Credits:** 1

**Grade Mode:** S/U

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### ESCI 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ESCI 302 - Environmental Pollution

Examination of human-induced environmental perturbations of air, land and water occurring on local, regional and global scales.

**Prerequisites & Notes:** CHEM 115 or CHEM 121; 1 quarter of biology; MATH 114

**Credits:** 4

**Grade Mode:** Letter

### ESCI 310 - Environmental Systems

Interaction of biotic systems with earth's physical systems; principles of ecology and natural systems; ecosystem structure, function and management. Should not be taken by students who have completed or intend to enroll in ESCI 325 or BIOL 325.

**Prerequisites & Notes:** CHEM 121; 1 quarter Biology; MATH 114

**Credits:** 4

**Grade Mode:** Letter

### ESCI 315 - Art, Science and Ethics of Flyfishing

The goals of this course are to learn how to fly fish and to use fly fishing as a window into environmental studies and, more specifically, into the structure and function of river ecosystems and how people interact with them. Class format includes lectures, discussions, and laboratory and field exercises to gain insight into stream ecology and to understand relations of science, ethics, and environmental management. Offered summer only.

**Prerequisites & Notes:** Knowledge of ecology or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### ESCI 316 - Advanced Flyfishing: river stewardship, reflection, and native trout

Students will be immersed in a wilderness setting for one intensive week of hands-on study, following classroom preparation. Classroom

preparation includes lectures, organism identification, flyfishing techniques, and fly tying as background for the field experience. Selections from flyfishing literature will be used to discuss the reflective nature and ethics of fly fishing and conservation with a focus on native trout. Students will learn to identify freshwater fishes of the Pacific Northwest and will be collecting and identifying aquatic insects at three long-term monitoring sites that will be surveyed by subsequent classes to assess environmental status. In conjunction with all of these activities, students will be instructed in journaling and will be expected to use these to record observations and reflections.

**Prerequisites & Notes:** ESCI 315 or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

### ESCI 321 - Oceanography

Principles of oceanography, with emphasis on a description of the marine environment as an entity. Physics, chemistry and biology of the ocean.

**Prerequisites & Notes:** 2 quarters Biology; CHEM 121; MATH 115; Physics recommended

**Credits:** 4

**Grade Mode:** Letter

### ESCI 322 - Oceanography Laboratory

A laboratory course supplementing lectures in oceanography, especially ESCI 321 and GEOL 340. Emphasis on the coastal ocean as ecological habitat, and physical oceanography - waves, tides and currents.

**Prerequisites & Notes:** pre/corequisite: ESCI 321

**Credits:** 2

**Grade Mode:** Letter

### ESCI 325 - Fundamentals of Ecology

Investigation of the complex interactions of organisms with each other and with their physical surroundings, explored in the context of populations, communities, ecosystems and landscapes.

**Prerequisites & Notes:** BIOL 204, BIOL 205 and BIOL 206; CHEM 121, CHEM 122 and CHEM 123

**Credits:** 3

**Grade Mode:** Letter

### ESCI 328 - Introduction to Ecosystem Management

Identification of non-market ecosystem values required of ecosystem management. Site specific



inventory and assessment of resource values, methods of collecting, storing, displaying and interpretation of resource data. The use of GIS as a resource management tool. Laboratory time will focus on identifying resource values of parks, natural preserves and other areas with high resource values. Course offered only at Huxley on the Peninsulas.

**Prerequisites & Notes:** ESCI 302 or ESCI 310 or one year of biology or instructor permission

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 330 - Natural History of the Pacific Northwest**

A field-oriented introduction to the geology, climate and ecosystems of the Pacific Northwest, with a focus on the biology and the ecology of important organisms.

**Prerequisites & Notes:** ESCI 310 or one year of biology or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 333 - Introduction to Environmental Toxicology**

Explore the foundations of how environmental pollutants affect biological health. Topics include source and exposure routes of pollutants, basics of quantitative toxicology, effects of exposures, risk perception, and environmental regulations as they relate to toxicology.

**Prerequisites & Notes:** One course general biology, one course general chemistry, or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 340 - Biostatistical Analysis**

Study, at an introductory and intermediate level, of data analysis and statistical tests commonly used in the biological and environmental sciences. Descriptive statistics, hypothesis testing, analysis of variance, regression and correlation, experimental design. Calculator required.

**Prerequisites & Notes:** BIOL 204, BIOL 205 and BIOL 206; CHEM 121, CHEM 122 and CHEM 123.

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 360 - Energy Efficient and Carbon Neutral Design**

Introduction to energy use in buildings and the concept of energy efficiency as a resource.

Provides a quantitative but accessible approach to the analysis, design and evaluation of measures to improve energy efficiency and pursue net-zero and/or carbon neutral design. Topics covered include building heating and cooling loads, HVAC system efficiency, solar energy resources and sun angles, passive solar design and rooftop photovoltaic sizing, energy efficient and zero-carbon design for buildings, vehicles, appliances, hot water and HVAC. Also offered as ENRG 360.

**Prerequisites & Notes:** MATH 115; ENRG 101 or ENRG 380 or ESCI 380 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 361 - Water Quality**

Water quality principles, problems, and issues; standard methods of assessing water quality; practical approaches in solving water-related problems. Includes laboratory.

**Prerequisites & Notes:** CHEM 121, CHEM 122, CHEM 123 and BIOL 204, BIOL 205, BIOL 206; or CHEM 121, BIOL 101, and ESCI 302 or ESCI 310 or ESCI 392.

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 366 - Life Cycle and Net Energy Analysis**

Life cycle analysis (LCA) is a powerful tool for assessing the environmental impact associated with all the stages of a product's life from cradle-to-grave (i.e from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling). This large picture view helps avoid a narrow outlook on environmental concerns and is an excellent method of comparing two potential products to see which has less impact on the environment. This course will focus on the energetic costs and carbon emissions associated with energy resources and technologies. Also offered as ENRG 366.

**Prerequisites & Notes:** CHEM 121 and MATH 124.

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 380 - Energy and Environment**

How do our choices in energy production impact the global and local environment? What does the future hold in terms of human use of energy? This class emphasizes the physical principles behind energy and the effects of energy on the environment. We will explore the interdependence of world economies and environment as well as look at individual opinions and choices on energy

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related issues. This course is also offered as ENRG 380.

**Prerequisites & Notes:** CHEM 121, and MATH 114

**Credits:** 3

**Grade Mode:** Letter

### **ESCI 392 - Introduction to Global Change**

By 2050, there will be ten billion people on the planet and we are changing the global environment at a pace unknown to history. We will unravel some of the linkages between biophysical systems, ecological responses, and human activities. We will cover changes to the climate, but also take a step back to appreciate the incredible suite of simultaneous global changes taking place in biotic diversity, hydrologic and chemical cycles, and human assimilation of Earth's energy.

**Prerequisites & Notes:** CHEM 121, BIOL 101, MATH 114

**Credits:** 3

**Grade Mode:** Letter

### **ESCI 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ESCI 402 - Topics in Environmental Studies**

Presentations by WWU faculty, researchers from other institutions, and Huxley College graduate students on a wide variety of topics in environmental studies. A written critique of selected presentations required. Questions, discussions and interactions encouraged. Informal brown bag lunch format. Repeatable to a maximum of 3 cr. S/U grading.

**Prerequisites & Notes:** Huxley major

**Credits:** 1

**Grade Mode:** S/U

### **ESCI 407 - Forest Ecology**

Ecology and analysis of forest ecosystems. Investigates the interactions of ecosystem components, specifically soil, plant and animal processes, with an emphasis on Pacific Northwest forests. Includes investigative field and lab studies of local ecosystems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340 or BIOL 340; or equivalent

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 408 - Field Methods in Wildlife Ecology**

Rationale and practice of methods to study vertebrates in the field. Emphasis on terrestrial environments. Students design and conduct field research projects.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340; or equivalent

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout**

Examination of the habitat, ecology and management of Pacific salmon and trout, with emphasis on Pacific northwest ecosystems. Topics covered include basic principles of watershed and riparian ecology, habitat requirements and ecology of salmonid fishes, effects of forest management and other land use practices on stream habitat, and strategies for mitigating adverse impacts.

**Prerequisites & Notes:** ESCI 310 or ESCI 325 or BIOL 325, or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ESCI 411 - Habitat Assessment of Pacific Salmon and Trout**

A project-oriented course based on laboratory and field investigations of riparian and in-stream habitats and their fish communities. Small groups will undertake investigations of local streams through the use of commonly accepted assessment practices.

**Prerequisites & Notes:** Co-req ESCI 410 or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

### **ESCI 421 - Fisheries Management Lab**

Field and laboratory experience in typical fisheries management techniques. Especially directed toward marine and freshwater sampling, population identification and quantification, and estimation of management parameters.

**Prerequisites & Notes:** ESCI 325.

**Credits:** 2

**Grade Mode:** Letter

### **ESCI 423 - Reconstructing Climate**

Introduction to the central concepts and techniques of reconstructing climate. This includes the reconstructions of past temperature, precipitation, streamflow, and sea surface temperatures using proxy data from ice cores, pollen records, tree rings etc. The class will be in lecture/lab format. The lab portion will include field trips to significant paleoecological sites in Washington. The primary lab activities involve building tree-ring chronologies using climate-sensitive trees.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340 or BIOL 340 or instructor permission.  
**Credits:** 5  
**Grade Mode:** Letter

### **ESCI 425 - Environmental Biology of Fishes**

An examination of the physiological, morphological and behavioral adaptations of fishes to the wide array of aquatic environments as demonstrated by various taxonomic and ecological groups.

**Prerequisites & Notes:** ESCI 325 or BIOL 325  
**Credits:** 3  
**Grade Mode:** Letter

### **ESCI 426 - Marine Invertebrates and Their Environment**

Classroom and field study of marine invertebrates and adaptation to their environment. Emphasis on identification and study of the diverse Puget Sound marine fauna.

**Prerequisites & Notes:** BIOL 206 or equivalent.  
**Credits:** 5  
**Grade Mode:** Letter

### **ESCI 428 - Freshwater Algae Bioindicators**

Introduction to the taxonomy and ecology of freshwater algae, with an emphasis on the role of freshwater algae as bioindicators of environmental pollution.

**Prerequisites & Notes:** ESCI 325 or BIOL 325 or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### **ESCI 429 - Stream Ecology**

Ecology and analysis of streams with emphasis on physical and chemical properties in relation to biotic communities. Processing of organic matter by stream invertebrates and fish communities. Perturbation by high organic loading or chemical pollutants and recovery processes. Reservoirs as hybrid systems. Field and laboratory exercises in sampling and analysis of stream ecosystems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 361 or concurrent.

**Credits:** 5  
**Grade Mode:** Letter

### **ESCI 430 - Limnology and Limnology Lab**

Ecology and analysis of lakes and standing water bodies, with emphasis on the physical, chemical and biological factors that determine biological productivity. Human impacts on lakes.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; and ESCI 361  
**Credits:** 5  
**Grade Mode:** Letter

### **ESCI 431 - Watershed Biogeochemistry**

Transfer, cycling, and interaction of carbon, nutrients, and other elements within and between terrestrial and aquatic ecosystems. Physical, chemical and biological influences on transfers. Computer simulation modeling of processes in an ecosystem context.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 361 or ENVS 327  
**Credits:** 3  
**Grade Mode:** Letter

### **ESCI 432 - Topics in Marine Ecology**

Primary literature is used to introduce students to important and current topics in marine ecology.

**Prerequisites & Notes:** ESCI 321  
**Credits:** 4  
**Grade Mode:** Letter

### **ESCI 433 - Population Biology**

Introduction to theory and application of population biology, with emphasis on population ecology. Study of structure, distribution, and dynamics of populations. Applications to population conservation and management.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; MATH 124; ESCI 340; MATH 125 recommended.  
**Credits:** 3  
**Grade Mode:** Letter

### **ESCI 435 - Landscape Ecology**

The study of landscape patterns across temporal and spatial scales; emphasis on their organization, functional interactions and dynamics. Application of landscape principles to land management problems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325;

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ESCI 340 or BIOL 340; or equivalent

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 439 - Conservation of Biological Diversity**

Examination of causes and consequences of declines in biodiversity due to human activities. Review of conflicts arising from multiple-use management of natural resources. Survey and evaluation of conservation efforts directed at single species and at ecosystems. Optional field trips.

**Prerequisites & Notes:** ESCI 325 or BIOL 325

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 440 - Wetlands Ecology**

An ecosystem approach to investigating the hydrologic, chemical and biological interactions that are unique to wetland systems. Students will take several field trips to bogs, swamps, marshes and estuaries in the area to become familiar with diverse wetland habitats and to illustrate the principals covered in class.

**Prerequisites & Notes:** ESCI 340 and ESCI 325 or concurrent

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 442 - Introduction to Remote Sensing**

An introduction to remote sensing concepts and techniques for monitoring the earth's surface features. Special emphasis on mapping land use and land cover and on quantifying aspects of vegetation structure and composition. Labs are based on the use of data from airborne and spaceborne multispectral scanners and LIDAR.

**Prerequisites & Notes:** Completion of a 300-level course in either ESCI, ESTU, EGEO, ENVS, BIOL, GEOL, ANTH, or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 443 - Ecological Images**

Creation, documentation and presentation of high-quality digital images for communicating ecological concepts, using hand-held camera, light microscope, and scanning electron microscope.

**Prerequisites & Notes:** One of: ESCI 302, or ESCI 310, or ESCI 325, or ESCI 392 or BIOL 325.

**Credits:** 3

**Grade Mode:** Letter

### **ESCI 444 - Biogeochemistry of Marine Sediments**

Introduces concepts in chemical oceanography and methodology of studying sediments and their chemistry.

**Prerequisites & Notes:** ESCI 321

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 445 - Marine Geochemistry**

This course will cover theory and application of the basics of marine geochemistry, including chemical fluxes, nutrient cycles, carbon dynamics, and stable isotopes. Topics are approached through directed reading, laboratory, field and classroom exercises.

**Prerequisites & Notes:** ESCI 321.

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 452 - Introduction to Science and Management of Contaminated Sites**

An orientation to the policy, economic, social, technological, and scientific aspects of managing contaminated sites in Washington State. Speakers will include stakeholder groups, decision makers, and those involved in the technical aspects of the clean-up. S/U grading

**Prerequisites & Notes:** ENVS 413 or ENVS 381, or concurrent; or similar course and instructor permission.

**Credits:** 1

**Grade Mode:** S/U

### **ESCI 453 - Science and Management of Contaminated Sites**

Using site documents and the Model Toxics Control Act, decisions will be made on how to clean up a Washington State contaminated site. Included in this process will be discussions on the methods used to characterize the extent of chemical contamination and available remediation techniques. Economic, social, regulatory, and scientific considerations will be included. A proposal for cleanup in the form of a Cleanup Action Plan (CAP) and a proposal for work to be conducted in ESCI 454 will be produced by students.

**Prerequisites & Notes:** ESCI 333 or ESCI 361 or ESCI 455; or ESCI 460 or concurrent or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

**ESCI 454 - Science, Management and Outreach of Contaminated Sites**

Students select an aspect of contaminated site cleanups in Washington State and develop a project under faculty direction that will address specific questions or needs. The projects will include technical components related to cleaning up contaminated sites with an additional emphasis on how to communicate the technical information to a general audience. The project will be completed as a group. Previous examples of student projects are available. Supplemental lectures will support the group projects.

**Prerequisites & Notes:** ESCI 453

**Credits:** 3

**Grade Mode:** Letter

**ESCI 455 - Environmental Toxicology I**

Physiological and biochemical effects of common pollutants found in our environment. Mechanism of action of individual pollutants, including cellular damage at molecular level.

**Prerequisites & Notes:** ESCI 302 or ESCI 333 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**ESCI 456 - Environmental Toxicology II**

Second course in environmental toxicology series. Covers toxicity testing, biomonitoring, data analysis and environmental risk assessment.

**Prerequisites & Notes:** ESCI 455 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

**ESCI 457 - Environmental Toxicology Laboratory I**

Protocols and procedures for evaluating the toxicity of chemicals and environmental samples using a variety of organisms and end point responses. Emphasis on organisms at the biochemical level. Introduction to quality assurance/quality control principles.

**Prerequisites & Notes:** ESCI 455 or concurrent.

**Credits:** 4

**Grade Mode:** Letter

**ESCI 458 - Environmental Toxicology Laboratory II**

Protocols and procedures for evaluating toxicological effects of chemicals and other stressors on aquatic and terrestrial organisms,

measuring a variety of responses besides mortality. Emphasis on impacts at the organism-level and applying results to determine short and long-term effects at populations and community levels.

**Prerequisites & Notes:** ESCI 456 or concurrent or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**ESCI 459 - Aquatic Toxicology**

Effects of toxic compounds on aquatic organisms. Acute and chronic responses of organisms to aquatic toxicants, and current literature on population, community and ecosystem aquatic toxicology.

**Prerequisites & Notes:** ESCI 455 or ESCI 456 or a minimum of 4 credits 400-level aquatic ecology courses

**Credits:** 3

**Grade Mode:** Letter

**ESCI 460 - Contaminant Movement in the Environment**

Physical, chemical, and biological processes that govern movement of contaminants in the environment and ultimate fate of these contaminants. Aspects of these processes that will be investigated include concentration, persistence, reactivity and partitioning among environmental media (air, water, soil, sediment and biota). These processes will be used as a basis of simple mathematical expressions used to determine contaminant behavior in the environment.

**Prerequisites & Notes:** Completion of Huxley Environmental Science prerequisites; ESCI 361 or ESCI 455; CHEM 251 or (CHEM 351 and CHEM 352).

**Credits:** 4

**Grade Mode:** Letter

**ESCI 462 - Air Pollution**

Types of air pollutants, their measurement and effects. Removal of air pollutants from gas streams. Air pollution meteorology and dispersion. Air pollution laws and standards. Air resources management.

**Prerequisites & Notes:** CHEM 121; ESCI 302.

**Credits:** 4

**Grade Mode:** Letter

**ESCI 463 - Wetlands for Wastewater Treatment**

This class will begin with brief introductions to

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conventional wastewater treatment methods (primary, secondary and tertiary) and chemistry as it relates to wetlands and wastewater treatment. Through assigned readings, we will then examine the use of both natural and constructed wetlands for the treatment of municipal wastewater, acid mine drainage, stormwater runoff, and agricultural wastewater. Each student will also be responsible for carrying out a research project using the campus stormwater wetland as a study site.

**Prerequisites & Notes:** Huxley or MESP major, or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### ESCI 470 - Ecological Restoration

Investigates the theory and practice of ecological restoration, including methods for evaluating the success of restoration projects. Incorporates physical and ecological as well as economic and cultural considerations. Students work in groups on actual restoration projects.

**Prerequisites & Notes:** Senior status.

**Credits:** 5

**Grade Mode:** Letter

### ESCI 480 - Applications in Energy Production

This class is designed to bring students into contact with the industries where energy is produced. In this field-based class we will visit conventional and alternative energy facilities and learn how energy is produced and delivered to consumers. We will pay particular attention to the basic physics, chemistry and biology of energy systems as well as their impacts on the environment. This course is also offered as ENRG 480.

**Prerequisites & Notes:** ESCI 380 or ESCI 329 or ENRG 380.

**Credits:** 4

**Grade Mode:** Letter

### ESCI 490 - Environmental Risk Assessment

Principles and methods of quantitative environmental risk assessment, data analysis and risk communication.

**Prerequisites & Notes:** Senior status. One 300 or 400 level toxicology course strongly recommended.

**Credits:** 4

**Grade Mode:** Letter

### ESCI 491 - Oceanography of Puget Sound

Focuses on estuarine circulation and its relation to

biological and chemical processes in Puget Sound. Students conduct a capstone research project integrating oceanography and public policy. As a capstone, course is for Seniors only.

**Prerequisites & Notes:** ESCI 321

**Credits:** 4

**Grade Mode:** Letter

### ESCI 492 - Climate Change

Study the basics of climate change science at global and regional scales. We will evaluate the probable impact on natural ecosystems, resources (food, water and energy) and society.

**Prerequisites & Notes:** MATH 124 or MATH 134; ESCI 340 or BIOL 340 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### ESCI 493 - Environmental Impact Assessment

Environmental Impact Assessment requires a range of professional qualifications and involves a wide spectrum of disciplines and methodologies. This interdisciplinary capstone course involves class preparation of an impact assessment of a local project, summarizing physical, biological and social aspects of a study area. Review of pertinent laws and EIS documents.

**Prerequisites & Notes:** Huxley major and senior status.

**Credits:** 5

**Grade Mode:** Letter

### ESCI 494 - Marine Conservation

Principles of marine conservation including the properties of marine ecosystems, the scientific basis of our understanding of these systems, and strategies for resource protection through governance and community action. Students will engage with local conservation groups through guest speakers and preparation of their own case studies as a capstone project.

**Prerequisites & Notes:** Huxley major and senior status.

**Credits:** 4

**Grade Mode:** Letter

### ESCI 495 - Teaching Practicum

Experience in teaching a lecture or laboratory course in environmental sciences. Repeatable to a maximum of 4 cr. S/U grading.

**Prerequisites & Notes:** relevant course work; instructor permission

**Credits:** 1-3  
**Grade Mode:** S/U

### **ESCI 496 - Integration of Environmental Science and Policy**

This course will investigate the integration of science and policy within EPA and other Federal agencies such as U.S. Forest Service, U.S. Geological Survey, NOAA and NASA. The course will be an introduction to the process of science, a review of Kuhn, Popper and Oreskes, and the interaction between observational and experimental data, theory and simulation. Policy formulation under several federal level programs will be introduced. Detailed examination of several case studies will be presented by the students. During the quarter local policy makers-shapers will also be invited to discuss their experiences in melding science and policy.

**Prerequisites & Notes:** Huxley College status or permission of instructor.

**Credits:** 3  
**Grade Mode:** Letter

### **ESCI 498A - Senior Thesis**

The Senior thesis makes an original contribution to knowledge by using primary research methods of an academic discipline. In cooperation with a faculty adviser, skills are developed in synthesizing prior knowledge, formulating a question or hypothesis, gathering new data or identifying existing information, analyzing results and drawing conclusions. The approach may be theoretical, historical, laboratory or field based. Two bound copies of the senior thesis, in an approved format, are submitted by the student, and one of them is kept in Wilson Library. Repeatable to a maximum of 15 credits.

**Credits:** 1-15  
**Grade Mode:** Letter

### **ESCI 498B - Internship**

The internship provides the student with a supervised work and learning experience in a paid employment or unpaid voluntary, environmentally relevant, professional setting. The sponsoring organization may be non-profit; academic; private-sector; or local, state or federal government. The experience is documented in an internship report conforming to an approved format. Two bound copies of the report are submitted by the student, and one of them is kept in Wilson Library. Repeatable to a maximum of 15 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 1-15  
**Grade Mode:** S/U

### **ESCI 498C - Senior Project**

Applies knowledge and skills to a practical problem or situation in environmental research, education, or resource management. In cooperation with the faculty advisor, develops expertise in planning, development, implementation, management, and completion of an independent project. Approach may be laboratory, computer, field, or community based. The student presents a written report, digital presentation, seminar, performance, or physical product appropriate to the project, as approved by the faculty advisor. Repeatable to a maximum of 15 credits.

**Credits:** 1 TO 15  
**Grade Mode:** L

### **ESCI 498D - International Study**

International study exposes the student to environmental concerns, situations, and problems in cultural and geographical setting of a foreign country. The experience fosters broadening the student's awareness of human and natural impacts on the environment, and natural and cultural contexts of environmental issues. The experience must contain a significant independent research or problem-solving component. Credits from non-Huxley programs may be substituted to partially or fully meet the requirement, provided prior approval of the faculty adviser is documented in a '498 contract.' The student presents a written report, film, digital presentation, or seminar appropriate for the project, as approved by the faculty adviser. Repeatable to a maximum of 15 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 1-15  
**Grade Mode:** S/U

### **ESCI 499A - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

### **ESCI 499B - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

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**Credits:** 1  
**Grade Mode:** S/U

### ESCI 499C - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 1  
**Grade Mode:** S/U

### ESCI 499D - Solar Power and its Impacts

A one-hour seminar dedicated to examining solar power's current and future impacts across the technological, political, economic, and environmental spectrum.

**Credits:** 1  
**Grade Mode:** S/U

### ESCI 499E - Seminar

Student/faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 1  
**Grade Mode:** S/U

### ESCI 499F - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499G - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499H - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499I - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499J - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499K - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499L - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499M - Seminar

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 2  
**Grade Mode:** S/U

### ESCI 499N - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
**Credits:** 1  
**Grade Mode:** Letter



**ESCI 4990 - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

**ESCI 499P - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

**ESCI 499Q - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

**ESCI 499R - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

**ESCI 499S - Seminar: Integration of Environmental Science and Policy**

This seminar will investigate the integration of science and policy within EPA and other Federal agencies such as US Forest Service, US Geological Survey, NOAA and NASA. The course will be an introduction to the process of science, a review of Kuhn, Popper and Oreskes, and the interaction between observational and experimental data, theory and simulation. Policy formulation under several federal level programs will be introduced. Detailed examination of several case studies will be presented by the students. During the quarter local policy makers-shapers will also be invited to discuss their experiences in melding science and policy.

**Prerequisites & Notes:** Environmental Science Major or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

**ESCI 499T - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

**ESCI 499U - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

**ESCI 499V - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

**ESCI 499W - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

**ESCI 499X - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

**ESCI 499Y - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

**ESCI 499Z - Seminar**

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Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 2

**Grade Mode:** Letter

### ESCI 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ESCI 501 - Research in Environmental Science

Philosophy and ethics of research; funding sources; proposal writing; research methodology; oral and written communication of research results; analytical and computer resources available at WWU.

**Prerequisites & Notes:** Graduate status in environmental science or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### ESCI 502 - Experimental Design

Elements of good experimental design, including modeling experiments and evaluating appropriate analysis techniques. Course draws heavily from current literature discussing appropriate use of statistics in experimental studies. Emphasis is on the application of univariate designs in ecological studies.

**Prerequisites & Notes:** minimum of one 300-level statistics course

**Credits:** 4

**Grade Mode:** Letter

### ESCI 503 - Statistical Ecology

Covers graphical, descriptive and basic inferential statistics; nonparametric procedures; regression, correlation, and analysis of variance; and multivariate classification and ordination. Emphasis on using a variety of statistical tools to analyze ecological data sets.

**Prerequisites & Notes:** Minimum of one 300-level biostatistics course.

**Credits:** 4

**Grade Mode:** Letter

### ESCI 507 - Advanced Forest Ecology

Ecology and analysis of forest ecosystems. Investigates the interactions of ecosystem components, specifically soil, plant and animal processes with an emphasis on Pacific Northwest forests. Includes investigative field and lab studies of local ecosystems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340 or BIOL 340; or equivalent

**Credits:** 5

**Grade Mode:** Letter

### ESCI 510 - Advanced Salmon and Trout Ecology

Examination of watershed ecology and fisheries biology, with an emphasis on Pacific Northwest ecosystems. Topics covered include salmonid fish life histories, riparian ecology, effects of land use practices on stream habitat, and strategies for fisheries management, conservation and restoration. Small groups will undertake empirical, field-based research projects. Offered concurrently with ESCI 410.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### ESCI 521 - Biological Oceanography

Course will provide a process-oriented view of marine pelagic ecosystems. Areas covered may include biogeography, energetics, food webs, biogeochemical cycles, fisheries oceanography. Laboratory and field work will emphasize current oceanographic techniques. Repeatable once.

**Prerequisites & Notes:** Graduate status; at least one year of biology, including ecology.

**Credits:** 5

**Grade Mode:** Letter

### ESCI 522 - Estuarine Ecology

Structure and function of estuarine ecosystems with emphasis on the effect of physical and chemical factors on biological systems. Current management issues resulting from human impacts on estuaries.

**Prerequisites & Notes:** course in general ecology, oceanography or limnology

**Credits:** 5

**Grade Mode:** Letter

**ESCI 523 - Past Environments of the Pacific Northwest**

Introduction to the concepts of paleoecology and paleoclimatology with a focus on changes in the northwestern United States over the Holocene. Students will work with fossil pollen, charcoal, and tree-ring data. Lecture/lab format.

**Prerequisites & Notes:** MATH 124; ESCI 325 or BIOL 325; ESCI 340 or BIOL 340; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**ESCI 529 - Advanced Stream Ecology**

Ecology of rivers and streams from a watershed perspective, with emphasis on Pacific Northwest ecosystems. Topics covered include hydrology, geomorphology, organic matter and trophic dynamics, biogeochemical cycles, aquatic insects, fish, riparian ecology and hyporheic processes. Offered concurrently with ESCI 429. Graduate students must enroll in graduate laboratory section.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**ESCI 530 - Advanced Limnology**

Advanced study of the physical, chemical and biological properties of lakes.

**Prerequisites & Notes:** Minimum of 10 credits of general chemistry.

**Credits:** 5

**Grade Mode:** Letter

**ESCI 533 - Advanced Population Biology**

Study of the structure, distribution, and dynamics of populations. Emphasis is on both empirical and theoretical approaches to studying populations.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; MATH 124; BIOL 321; MATH 125 recommended

**Credits:** 4

**Grade Mode:** Letter

**ESCI 535 - Advanced Landscape Ecology**

The advanced study of landscape patterns across temporal and spatial scales with emphasis on their organization, functional interactions and dynamics. Application of landscape principles to land management problems.

**Prerequisites & Notes:** ESCI 325, ESCI 340 or

equivalent

**Credits:** 4

**Grade Mode:** Letter

**ESCI 536 - Environmental Impact Assessment Practicum**

Preparation of an objective assessment description of a real natural area including the search for public documentation, evaluation of coverage and specific new analyses. Coordinating role in task group data assembly and editorial review of draft project summaries. Experience directly related to professional responsibilities in the environmental field. Review of assessment utilization in the EIS format and of significant legislation.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

**ESCI 539 - Advanced Conservation of Biological Diversity**

Advanced study of causes and consequences of declines in biodiversity due to human activities. Review of conflicts arising from multiple-use management of natural resources. Survey and evaluation of conservation efforts directed at single species and at ecosystems. Discussion of primary conservation literature. Optional field trips.

**Prerequisites & Notes:** ESCI 325 or BIOL 325

**Credits:** 5

**Grade Mode:** Letter

**ESCI 540 - Wetlands Ecology**

Uses an ecosystem approach to investigate the hydrologic, chemical and biological interactions that are unique to wetland systems. Students will take several field trips to bogs, swamps, marshes and estuaries in the area to become familiar with diverse wetland habitats and to illustrate the principals covered in class.

**Prerequisites & Notes:** ESCI 502 or concurrent

**Credits:** 5

**Grade Mode:** Letter

**ESCI 542 - Remote Sensing**

Concepts and applications of remote sensing techniques for monitoring earth surface features. Special emphasis on mapping land use and land cover and on quantifying aspects of vegetation structure and composition. Labs are based on the use of data from airborne and spaceborne multispectral scanners and LIDAR.

**Prerequisites & Notes:** Graduate Status

## ENVIRONMENTAL SCIENCES

**Credits:** 5

**Grade Mode:** Letter

### **ESCI 555 - Advanced Environmental Toxicology I**

Physiological and biochemical effects of major pollutants found in the environment; influence of various nutrients on pollutant toxicity.

**Prerequisites & Notes:** ESCI 302, CHEM 375; or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 556 - Advanced Environmental Toxicology II**

Second course in environmental toxicology series. Covers toxicity testing, biomonitoring, data analysis and environmental risk assessment.

**Prerequisites & Notes:** ESCI 455 or ESCI 555 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 557 - Advanced Environmental Toxicology Laboratory I**

Protocols and procedures for evaluating the toxicity of chemicals and environmental samples using a variety of organisms and end point responses. Emphasis on organisms at the biochemical level.

**Prerequisites & Notes:** pre/corequisite: ESCI 555 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **ESCI 558 - Advanced Environmental Toxicology Laboratory II**

Protocols and procedures for evaluating the toxicological effects of chemicals and other stressors on aquatic and terrestrial organisms measuring a variety of responses besides mortality. Emphasis on impacts at the organism level and applying results to determine short- and long-term effects at population and community levels.

**Prerequisites & Notes:** pre/corequisite: ESCI 556 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **ESCI 559 - Aquatic Toxicology**

Evaluation of the effects of toxic compounds on aquatic organisms. Acute and chronic responses to aquatic toxicants. Current trends in organismal,

community and ecosystem aquatic toxicology.

**Prerequisites & Notes:** ESCI 555 or ESCI 556 or minimum of 4 credits 400-level courses in aquatic ecology

**Credits:** 3

**Grade Mode:** Letter

### **ESCI 562 - Advanced Air Pollution**

Types of air pollutants, their measurements and effects. Removal of air pollutants from gas streams. Air pollution meteorology and dispersion. Air pollution laws and standards. Air resources management.

**Prerequisites & Notes:** ESCI 302; general chemistry; 2 quarters of calculus

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 590 - Advanced Environmental Risk Assessment**

Principles and methods of quantitative environmental risk assessment, data analysis and risk communication.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 592 - Climate Change**

Magnitude and extent of climatic change and its probable impact on natural ecosystems resources (food, water and energy) and society. Evaluates possible actions which could minimize the impacts.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

### **ESCI 595 - Teaching Practicum**

Experience in teaching a lecture or laboratory course in environmental studies. Repeatable. S/U grading.

**Prerequisites & Notes:** relevant course work

**Credits:** 1-3

**Grade Mode:** S/U

### **ESCI 599 - Graduate Environmental Studies Seminar**

Selected topics across the spectrum of environmental studies (e.g., toxicology, watershed studies, applied ecology, geography, environmental education, etc.). Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** Graduate status.

**Credits:** 1-2

**Grade Mode:** S/U

**ESCI 690 - Thesis Research**

Thesis research in environmental science under faculty direction, an integral part of the MS in environmental science. Repeatable up to 36 credits. S/U grading.

**Prerequisites & Notes:** thesis advisory committee permission

**Credits:** 1-12

**Grade Mode:** S/U

# Environmental Studies

## Introduction

Students, faculty, and staff in the Department of Environmental Studies approach environmental understanding and problem solving through diverse programs that examine interacting social and natural systems. By putting the social sciences, natural sciences, humanities, and environmental professions into direct dialogue, the department's curriculum is designed to help students make the intellectual connections and gain the practical skills necessary for building socially and environmentally sustainable futures.

The department's undergraduate programs include major specializations in environmental education, environmental policy, geography, and urban planning and sustainable development, as well as an interdisciplinary major in environmental studies. The department also offers joint programs with the College of Business and Economics, Woodring College of Education, and the College of Humanities and Social Sciences. A range of minors, including Disaster Risk Reduction (DRR), Geographic Information Science (GIS), Energy Policy, and Sustainable Design, and Geographic Information Certificate are also available. These programs direct students to specific environmental career paths or provide an excellent background for advanced study in education, law, natural resource management, public administration, urban and environmental planning, and other fields. The department also offers advanced study through graduate degrees in Environmental Education and Environmental Studies.

## Faculty

The faculty's work in this department is diverse, yet tied together by a shared commitment to ongoing interdisciplinary exchange. Faculty are trained in anthropology, education, engineering, geography, history, law, natural resources management, political science, psychology, urban and regional planning, and related fields. Active research programs keep faculty at the forefront of these fields as they intersect with environmental studies. Department academic programs also draw upon the expertise of colleagues in other units of the University, such as the departments of economics and political science.

## Department Resources

Department facilities support applied student learning in the 38-computer spatial analysis lab with a complete suite of state-of-the-art GIS, cartography, and remote sensing software, GPS

receivers, and extensive local data sets. Facilities also include the planning studio and environmental education lab. Experiential learning is emphasized in many of our programs, taking students into the field, from the local to the international, where they apply their skills and knowledge to current problems. Student work has received recognition from state, national, and international organizations for exceptional problem-solving solutions, which use geographic information science and computer-aided design.

## Major Declaration

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). Those pursuing joint programs offered by Environmental Studies with other Western academic units may also begin as Phase I majors, although the preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1- to 2-page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as

well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.

3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

## Faculty

**GIGI BERARDI** (1995) Chair and Professor. Policy, Planning, Education and Geography, BA (biology), University of California at San Diego; MS (natural resources conservation), PhD (natural resources, policy and planning), Cornell University.

**TROY D. ABEL** (2006) Associate Professor. BS, Indiana University (public health); MPA, George Mason University (public policy analysis); PhD, public policy and science and technology policy).

**ANDREW J. BACH** (1995) Associate Professor. BS, MA (geography), University of California-Davis; PhD (geography), Arizona State University.

**PATRICK H. BUCKLEY** (1987) Professor. BS (civil engineering and geology), University of Notre Dame; MA (economic geography and South Asian studies), University of Washington; PhD (economic geography), Boston University.

**KATE J. DARBY** (2010) Assistant Professor. BS, Pennsylvania State University (chemical engineering); MS, University of Oregon (certificate: Not-for-Profit Management); PhD, Arizona State University (environment, technology and society).

**AQUILA FLOWER**, PhD, environmental change from a geographic perspective using a suite of methodological approaches drawn from the fields of dendrochronology, ecology, statistics, and geospatial analysis.

**STEVEN J. HOLLENHORST** (2012) Professor and Dean, Huxley College of the Environment. BS and MS (recreation and park management), University of Oregon; Phd (recreation and park management), The Ohio State University.

**NABIL KAMEL** (2004) Associate Professor. BS (Architecture and Urban Planning), MA (Urban Planning), Texas A&M University; PhD (Public Policy and Social Research), University of California, Los Angeles.

**TAMARA J. LANINGA** (2005) Assistant Professor. BS, Western Washington University (environmental policy and

assessment); MA, University of Colorado (water resource policy); Graduate interdisciplinary certificate, University of Colorado (certificate in environmental policy); PhD, University of Colorado, Denver (design and urban planning).

**MICHAEL J. MEDLER** (2002) Associate Professor. BS (philosophy), MS (environmental studies), University of Oregon; PhD (geography), University of Arizona.

**JEAN O. MELIOUS** (1996) Professor. BA (government and environmental studies), St. Lawrence University; PhM (urban design and regional planning), University of Edinburgh; JD, Harvard Law School.

**O. EUGENE MYERS** (1995) Professor. BS (human ecology), Western Washington University; MA, PhD (psychology and human development), University of Chicago.

**MARK NEFF** (2009) Assistant Professor. BA (German Literature and Language), MS (Environmental Studies), University of Oregon; PhD (Life Sciences and Consortium for Science, Policy and Outcomes), Arizona State University.

**REBEKAH PACI-GREEN**, PhD, human ecology, the Disaster Risk Reduction minor, and advises *The Planet* publication.

**DAVID A. ROSSITER** (2005) Associate Professor. BA (Honors), University of British Columbia; MA (geography); PhD, (geography) York University.

**PAUL STANGL** (2007) Associate Professor. BS (liberal arts) Kansas State University; MCRP (city and regional planning), Rutgers University; PhD (geography), University of Texas-Austin

**NICK STANGER** (2014) Assistant Professor. BS Honors (Comparison of Temperate Old-Growth Forest Epiphyte Communities), MA (Youth and Environmental Art), Royal Roads University; PhD (Replacing Ourselves in Nature), University of Victoria.

**WENDY WALKER** (1991) Visiting Senior Instructor. BA and K-12 Teaching Certificate (geology), Western Washington University; MS (religion), Florida State University.

**GRACE WANG** (2002) Associate Professor. BS (political economy of natural resources), University of California-Berkeley; MS, PhD (forestry), University of Minnesota.

**NICHOLAS C. ZAFERATOS** (1999) Professor. BA (economic and regional geography), State University of New York; MS (urban and regional planning), Western Washington University; PhD (urban planning), University of Washington.

## Emeritus Faculty

**JOHN T. (JACK) HARDY** Professor Emeritus of Environmental Sciences. BA, University of California-Santa Barbara; MA, Oregon State University; PhD, University of Washington

**J. RICHARD MAYER** Professor Emeritus of Environmental Science. BS, Union College; MA, Columbia University; PhD, Yale University.

## ENVIRONMENTAL STUDIES

**JOHN C. MILES** Professor Emeritus of Huxley College of the Environment. BA, MA, University of Oregon; PhD, The Union Institute.

**ROBERT L. MONAHAN** Professor Emeritus of Geography and Environmental Social Sciences. BA, University of Washington; MA, University of Michigan; PhD, McGill University.

**DEBNATH MOOKHERJEE** Professor Emeritus of Geography. BSc, MSc, University of Calcutta; PhD, University of Washington.

**LYNN A. ROBBINS** Professor Emeritus of Environmental Studies. BA, University of Utah; MA, PhD, University of Oregon.

**BRADLEY F. SMITH** Professor Emeritus of Huxley College of the Environment. BA, MA, Western Michigan University; PhD, University of Michigan.

**THOMAS A. TERICH** Professor Emeritus of Geography. BA and MA, California State University, Los Angeles; PhD, Oregon State University.

**HERBERT H. WEBBER** Professor Emeritus of Geography and Environmental Social Sciences. BSc, PhD, University of British Columbia.

**MING-HO YU** Professor Emeritus of Huxley College. BS, National Taiwan University; MS, PhD, Utah State University.

### Adjunct Faculty

**JAMES D. ALLAWAY**, PhD (natural resources, policy, and planning), Cornell University.

**PAUL DINNELL** Marine Scientist, Shannon Point Marine Center. PhD (fisheries), University of Washington.

**STEFAN FREELAN**, MS (geography), Western Washington University.

**JERRY FREILICH**, Research and Monitoring Coordinator, Olympic National Park, PhD (aquatic ecology), University of Georgia.

**APRIL MARKIEWICZ**, MS (environmental toxicology), Western Washington University.

**BRADY OLSON**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**JENNIFER SELTZ**, PhD (history), University of Washington.

**MICHAEL G. STONER**, Environmental Manager, Port of Bellingham. MS (forest soils), University of

Washington.

**SUZANNE STROM**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**LAURIE D. TRAUTMAN**, Associate Director, Border Policy Research Institute. PhD (geography), University of Oregon.

**KATHRYN L. VAN ALSTYNE**, Marine Scientist, Shannon Point Marine Center. PhD (marine ecology), University of Washington.

**SETH VIDANA**, WWU Sustainability Manager, MEd (environmental education), Western Washington University.

**SAUL WEISBERG**, Executive Director, North Cascades Institute. MS (biology) Western Washington University.

### Affiliated Faculty

**JOHN BOWER**, Associate Professor, Fairhaven College

**DON BURGESS**, Assistant Professor, SMATE

**CRAIG DUNN**, Associate Professor, Management, CBE

**DAN HAGEN**, Professor, Economics, CBE

**JILL HECKATHORN**, Senior Instructor, PE

**VICTOR NOLET**, Professor, Woodring College of Education

**ARUNAS OSLAPAS**, Professor, Engineering Technology

**DEBRA J. SALAZAR**, Professor, Department of Political Science

**DAVID SATTLER**, Professor, Department of Psychology

**STEPHEN D. SULKIN**, Professor and Director, Shannon Point

**PHIL THOMPSON**, Assistant Professor, Economics, CBE

**JOHN TUXILL**, Assistant Professor, Fairhaven College

### Graduate Study

For concentrations leading to the Master of Education or the Master of Arts degrees, see the Graduate School section of this catalog.

## Bachelor of Arts

### Business and Sustainability, BA (see Management Department)

Business and Sustainability, BA (see Management Department)

### Economics/Environmental Studies, BA (see Economics Department)

Economics/Environmental Studies, BA (see Economics Department)



## Environmental Education, BA

Department of Environmental Studies, Huxley College of the Environment

**125-134 credits: Phase I, Phase II, and Major**

### Introduction

The major consists of four distinct parts. First, students acquire an understanding of the content of environmental studies. Second, students examine the process of education for an environmental perspective. Third, students investigate ways of applying environmental education content and techniques in the professional roles they may pursue. Fourth, students participate in internships, a field practicum, or research.

### Why Consider an Environmental Education Major?

Are you excited about teaching people about the environment? Do you want to help people learn to make environmental choices in their lives? Do you love to work outdoors with children or adults? Then Environmental Education is for you.

Graduates of this major have assumed positions as teachers in private schools, as interpreters with resource management agencies, as staff in programs for special populations such as at-risk youth and persons with disabilities, among others, and with wilderness education non-profits.

Contact Information		
<b>Department Chair</b>	<b>Huxley College Admissions Advisor</b>	<b>Faculty Advisor</b>
Gigi Berardi Arntzen Hall 204 360-650-2106 Gigi.Berardi@wwu.edu	Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu	Gene Myers Arntzen Hall 224 Gene.Myers@wwu.edu
Sample Careers		
Private School Teacher   Outdoor Leadership Director   Environmental Interpreter   Adventure Educator   Camp Director   Nature Writer   Naturalist   Communications work in Sustainability Non-profits and Government Agencies		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

### How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.

## ENVIRONMENTAL STUDIES

3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### PHASE I

##### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- MATH 114 - Precalculus I or equivalent or higher
- PLSC 250 - The American Political System
- ENVS 201 - Understanding Environmental Data and Information
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 203 - Physical Geography

#### PHASE II

##### ENVS CORE

##### Required Courses (17-20 credits):

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

#### Environmental Education Major

##### Required Courses (75-81 credits):

- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 483 - Environmental Interpretation
- ENVS 484 - The Literature of Nature and Place

- ENVS 485 - Natural History for Environmental Education \*
- ENVS 486 - Field Methods in Environmental Education \*
- ENVS 488 - Outdoor Education \*
- ENVS 489 - Leadership for a Sustainable Future \*
- ENVS 492 - Curriculum for Environment and Sustainability

Part of Spring Block

- ESCI 330 - Natural History of the Pacific Northwest

- One course from:

ENVS 412 - Environmental Journalism

ENVS 491 - Environmental Communication

Students are required to take one ENVS approved course with a capstone "CPST" attribute during their senior year. A capstone class is a field or project based class that can be taken by students from both departments (ENVS/ESCI). This class is meant to be a culminating experience for the students bringing all the varied disciplines together as applied work on a real world issue. One example of a capstone is ENVS/ESCI 493 Environmental Impact Assessment where students work in groups to conduct an assessment.

- ENVS Capstone - One course from:

ENVS 410 - Agroecology and Sustainable Agriculture

ENVS 430 - Borderlands: Resource Management

ENVS 466 - Greening Business Applications

ENVS 474 - Planning for Sustainable Communities

ENVS 493 - Environmental Impact Assessment

ENVS 496 - Environmental Stewardship

ESCI 470 - Ecological Restoration

ESCI 490 - Environmental Risk Assessment

ESCI 491 - Oceanography of Puget Sound

ESCI 493 - Environmental Impact Assessment

Or other ENVS or ESCI approved course with a capstone (CPST) attribute

- One course from (minimum 10 credits):

ENVS 498A - Senior Thesis

ENVS 498B - Internship

ENVS 498C - Senior Project

ENVS 498D - International Study

- 20-24 credits - Specialized Electives 300- or 400-level

## Environmental Policy (Extension), BA

Department of Environmental Studies, Huxley College of the Environment

**116-125 credits (Phase I, Phase II and Major)**

### Introduction

The interdisciplinary program in Environmental Policy (Extension) is offered at off-site locations and prepares students to enter professional fields concerned with the sustainability of the human and natural environment. The program provides students with the knowledge and skills necessary to promote positive change by solving problems and implementing shared visions in both natural settings and urban communities. The Environmental Policy Emphasis concentrates in public policy development, sustainability, law and decision making. Exact off site locations are listed in the Extended Education section of this catalog.

#### Contact Information

Website: [www.wvu.edu/ee/huxley](http://www.wvu.edu/ee/huxley)

#### Academic Program Director

Troy D. Abel

Huxley on the Peninsulas

360-394-2741

[Troy.Abel@wvu.edu](mailto:Troy.Abel@wvu.edu)

#### Admissions Advisor

Nancy Bluestein-Johnson

Huxley on the Peninsulas

360-417-6521

[Nancy.Bluestein-Johnson@wvu.edu](mailto:Nancy.Bluestein-Johnson@wvu.edu)

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

# ENVIRONMENTAL STUDIES

## How to Declare (Admission and Declaration Process):

If you are interested in the Environmental Policy (Extension), BA major, you must first complete either; a Direct Transfer Agreement (DTA) Associate Degree or the equivalent to Western Washington University's General University Requirements. You can decide to become an Environmental Policy major at any time. It is advantageous to plan for your major during your freshman or sophomore year, as prerequisite classes can be a part of earning your DTA. Contact the program manager (see below) to develop a plan for completing the prerequisite courses while earning your DTA. Your email can be added to the "interested students: distribution list for Huxley on the Peninsulas and you will begin to receive notifications, general announcements, and information about jobs, internships, or research opportunities.

Important information about admission to the ENVS major:

1. Phase I: Most students complete the Environmental Policy major Phase I, while completing their DTA associates degree. The Phase I prerequisites must be complete before admission into Huxley on the Peninsulas. Phase I prerequisites include BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent or higher, CHEM 121, as well as Math 240 (or equivalent), ENVS 203, plus a DTA.
2. Phase II: Admission to Phase II is a competitive process and requires the coursework above and a satisfactory GPA in all coursework. You must then submit two applications: the Extension Undergraduate Program at <http://admissions.wvu.edu/print/EESPExtensionUGApp.pdf> and a Huxley on the Peninsulas application that lists relevant experience and includes a 1-2 page essay describing your reasons for wanting to enter into the Environmental Policy major. Applications are obtained from the program manager and accepted in the spring for fall admittance.
3. Changes to your major during Phase II require completing a new declaration card.

If you have any questions, please contact Nancy Bluestein-Johnson, program manager, by phone (360-417-6521) or [Nancy.Bluestein-Johnson@wvu.edu](mailto:Nancy.Bluestein-Johnson@wvu.edu)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

PHASE I (Required Courses): 34-37 credits

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 203 - Physical Geography
- MATH 114 - Precalculus I
- PLSC 250 - The American Political System
- Any BCOM or CCOM GUR requirement course
- One course from:
  - ENVS 201 - Understanding Environmental Data and Information
  - DSCI 205 - Business Statistics
  - MATH 240 - Introduction to Statistics
  - SOC 304 - Statistics for Sociology

PHASE II (ENVS Core - Required Courses): 20-21 credits:

- ESCI 325 - Fundamentals of Ecology
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics

- ❑ ENVS 361 - Introduction to Planning
- ❑ One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 361 - Water Quality

#### Environmental Policy Extension Major Required Courses: 62-67 credits

- ❑ ECON 383 - Environmental Economics
- ❑ ENVS 450 - Science in the Policy Process
- ❑ ENVS 456 - Environmental Governance
- ❑ ENVS 457 - Environmental Dispute Resolution
- ❑ One course from:
  - ENVS 350 - Energy Policy and Politics
  - ENVS 451 - Natural Resource Policy
  - ENVS 452 - International Environmental Policy
- ❑ One course from:
  - ENVS 455 - Environmental Law
  - ENVS 461 - Land Use Law
- ❑ ESCI - One or more 300-level or above natural science courses (4-5 credits)
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 315 - Art, Science and Ethics of Flyfishing
  - ESCI 321 - Oceanography
  - ESCI 328 - Introduction to Ecosystem Management
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 380 - Energy and Environment
  - ESCI 392 - Introduction to Global Change
  - ESCI 407 - Forest Ecology
  - ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout
  - ESCI 429 - Stream Ecology
  - ESCI 432 - Topics in Marine Ecology
  - ESCI 462 - Air Pollution
  - ESCI 463 - Wetlands for Wastewater Treatment
  - ESCI 470 - Ecological Restoration
  - ESCI 480 - Applications in Energy Production
- ❑ One course from (minimum of 10 credits):
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- ❑ Capstone (one course from):
  - ENVS 493 - Environmental Impact Assessment
  - ESCI 493 - Environmental Impact Assessment
- ❑ 19-22 Specialization electives 300 or 400 level, under advisement.

## Environmental Policy, BA

Environmental Studies, Huxley College of the Environment

**109-118 credits: Phase I, Phase II, and Major**

### Introduction

This interdisciplinary program prepares students to enter professional fields concerned with the sustainability of the human and natural environment. The Environmental Policy program consists of a core, and specialization electives. The core incorporates the interdisciplinary foundation of Huxley College's approach to

## ENVIRONMENTAL STUDIES

the study of the environment. Environmental policy concentrates studies in public policy development, law, and methods and processes of planning and decision making. The specialization elective component of the program is flexible. It allows students to develop an area of special interest, concentrating on a minor in an academic discipline, or to select from a number of thematically oriented clusters of courses.

### Why Consider an Environmental Policy Major?

Do you want to use your knowledge and skills to promote positive change in the environment? Do you love solving problems and implementing shared visions in both natural settings and urban communities? Are you interested in the laws and policies that govern environmental change? Then Environmental Policy is the major for you.

Contact Information		
<b>Department Chair</b> Gigi Berardi Arntzen Hall 204 360-650-2106 Gigi.Berardi@wwu.edu	<b>Huxley College Admissions Advisor</b> Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu <b>Policy Track Advisor</b> Troy Abel Arntzen Hall 205 Troy.Abel@wwu.edu	<b>Policy Track Advisor</b> Jean Melious Arntzen Hall 208 Jean.Melious@wwu.edu <b>Policy Track Advisor</b> Grace Wang Arntzen Hall 212 Grace.Wang@wwu.edu

Sample Careers
Urban Planner   Environmental Lawyer   County Planner   Environmental Public Relations   Director of Non-Profit Organizations
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

### How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.
3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### PHASE I

#### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 201 - Understanding Environmental Data and Information
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 203 - Physical Geography
- MATH 114 - Precalculus I or equivalent or higher
- PLSC 250 - The American Political System

### PHASE II

#### ENVS CORE

#### Required Courses (17-20 credits):

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

#### Environmental Policy Major

#### Required Courses (59-65 credits):

- ECON 383 - Environmental Economics
- ENVS 450 - Science in the Policy Process
- ENVS 456 - Environmental Governance
- ENVS 457 - Environmental Dispute Resolution
- One or more 300 level or above natural science courses:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 315 - Art, Science and Ethics of Flyfishing

## ENVIRONMENTAL STUDIES

- ESCI 328 - Introduction to Ecosystem Management
- ESCI 330 - Natural History of the Pacific Northwest
- ESCI 333 - Introduction to Environmental Toxicology
- ESCI 361 - Water Quality
- ESCI 380 - Energy and Environment
- ESCI 392 - Introduction to Global Change
- ESCI 410 - Habitat and Ecology of Pacific Salmon and Trout
- ESCI 462 - Air Pollution
- ESCI 463 - Wetlands for Wastewater Treatment
- ESCI 470 - Ecological Restoration
- ESCI 480 - Applications in Energy Production
- Or other approved 300-400 level or above course
- One course from:
  - ENVS 350 - Energy Policy and Politics
  - ENVS 359 - Greening Business Policy and Practice
  - ENVS 362 - Theory and Practice of Emergency Management
  - ENVS 441 - Society, Space, and Natural Resources
  - ENVS 451 - Natural Resource Policy
  - ENVS 452 - International Environmental Policy
  - ENVS 454 - Environmental Policy Analysis
- One course from:
  - ENVS 455 - Environmental Law
  - ENVS 461 - Land Use Law

Students are required to take one ENVS approved course with a capstone "CPST" attribute during their senior year. A capstone class is a field or project based class that can be taken by students from both departments (ENVS/ESCI). This class is meant to be a culminating experience for the students bringing all the varied disciplines together as applied work on a real world issue. One example of a capstone is ENVS/ESCI 493 Environmental Impact Assessment where students work in groups to conduct an assessment.
- ENVS Capstone - One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands: Resource Management
  - ENVS 466 - Greening Business Applications
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment

Or other ENVS or ESCI approved course with a capstone (CPST) attribute
- One course from: (minimum 10 credits)
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- 18-19 credits - Specialization electives 300 or 400 level, under advisement.

## Environmental Studies, BA

Department of Environmental Studies, Huxley College of the Environment

**123-135 credits minimum: Phase I, Phase II, and Major**

### Introduction

Students, faculty, and staff in the Department of Environmental Studies approach environmental understanding and problem solving through diverse programs that examine interacting social and natural systems. By putting the social sciences, natural sciences, humanities, and environmental professions into direct dialogue, the department's curriculum is designed to help students make the intellectual connections



and gain the practical skills necessary for building socially and environmentally sustainable futures. The department's undergraduate programs include major specializations in environmental education, environmental policy, geography, and urban planning and sustainable development, as well as an interdisciplinary major in environmental studies. Joint programs are also offered in environmental economics and environmental journalism. A range of minors, including Disaster Risk Reduction (DRR), Geographic Information Science (GIS), and Sustainable Design, are also available. These programs direct students to specific environmental career paths or provide an excellent background for advanced study in education, law, natural resource management, public administration, urban and environmental planning, and other fields. The department also offers advanced study through graduate degrees in Environmental Education and Geography.

### Why Consider an Environmental Studies Major?

Do you want to use your knowledge and skills to promote positive change in the environment?

#### Contact Information

##### Department Chair

Gigi Berardi  
Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Sample Careers

Urban Planner | Environmental Lawyer | County Planner | Environmental Public Relations | Director of Non-Profit Organizations

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.
3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# ENVIRONMENTAL STUDIES

## PHASE I

### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 201 - Understanding Environmental Data and Information
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 203 - Physical Geography
- MATH 114 - Precalculus I or equivalent or higher
- PLSC 250 - The American Political System

## PHASE II

### ENVS CORE

#### Required Courses (17-20 credits):

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

### Environmental Studies Major (73-82 credits):

The Environmental Studies Major requires:

Two advisors to sign the plan of study BEFORE the beginning of senior year.  
Choose two lists from the four below (A, B, C, D); take two courses from each chosen list.

List A - Environmental Education:

- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 484 - The Literature of Nature and Place

List B - Environmental Policy:

- ENVS 450 - Science in the Policy Process
- ENVS 454 - Environmental Policy Analysis
- ENVS 456 - Environmental Governance

List C - Urban Planning and Sustainable Development:

- ENVS 360 - Plan Graphics: Methods in Urban Planning Design Graphics
- ENVS 361 - Introduction to Planning
- ENVS 370 - History of Planning
- ENVS 462 - Planning Theory
- ENVS 470 - Planning Methods

List D - Geography:

- ENVS 316 - Explorations in Environmental Studies
- ENVS 326 - Climatology
- ENVS 327 - The Soil Environment
- ENVS 331 - Canada: Society and Environment
- ENVS 332 - The Pacific Northwest: Society and Environment
- ENVS 334 - South Asia: Society and Environment
- ENVS 335 - The Middle East: Society and Environment
- ENVS 340 - Developing World
- ENVS 341 - Population and Resources
- ENVS 342 - Geography of the World Economy

Please note: Prerequisites may be required for some courses.

Students are required to take one ENVS approved course with a capstone "CPST" attribute during their senior year. A capstone class is a field or project based class that can be taken by students from both departments (ENVS/ESCI). This class is meant to be a culminating experience for the students bringing all the varied disciplines together as applied work on a real world issue. One example of a capstone is ENVS/ESCI 493 Environmental Impact Assessment where students work in groups to conduct an assessment.

- ENVS Capstone - One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands: Resource Management
  - ENVS 466 - Greening Business Applications
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
 Or other ENVS or ESCI approved course with a capstone (CPST) attribute
- Minimum 10 credits - ENVS Experiential application - One course from:
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- Minimum 30 credits - ENVS 300-400 level (minimum 15 credits 400-level) or approved substitutions, under advisement
- Minimum 18 credits - 300- or 400-level electives, under advisement

## **Environmental Studies/Journalism, BA (In Moratorium, see Journalism Department)**

Environmental Studies/Journalism, BA (In Moratorium, see Journalism Department)

## **Geography, BA**

Department of Environmental Studies, Huxley College of the Environment

**110-114 credits: Phase I, Phase II, and Major**

### **Introduction**

Geography is the science of place and space. Geographers ask where things are located on the surface of the Earth, why they are located where they are, how places differ from one another, and how people interact with the environment. Geography links the social sciences and natural sciences together, studying the relationships between human activity and natural systems.

As a geographer, you can make a difference — from teaching to planning, from working for sustainable development to working with geospatial technologies, and more. Graduates of this major have assumed positions in State and National Parks, the Forest Service, college and universities, non-profit organizations, and the private sector. If you are interested in teaching Geography in public schools, see the B.A.

# ENVIRONMENTAL STUDIES

Geography/Social Studies or B.A.Ed. Geography/Elementary Education information sheet. Western also offers a Masters in Science in Geography.

Prospective Geography majors are strongly advised to take additional preparatory course work that provides a strong background in several of: chemistry, biology, geology, physics, mathematics, statistics, political science, anthropology, and/or history. The preparatory courses listed for the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. Students wishing to complete the Geography major in four years should complete all GUR requirements in the first two years. A minor in Geographic Information Science, Geology or an additional language are commonly completed by Geography students. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

## Why Consider a Geography Major?

Are you curious about the world, and its physical and human dimensions? Do you love maps? Are you comfortable with spatial problem solving? If so, then Geography is the major for you.

Contact Information			
<b>Department Chair and Advisor</b> Gigi Berardi Arntzen Hall 204 360-650-2106 Gigi.Berardi@wwu.edu	<b>Huxley College Admissions Advisor</b> Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu	<b>Faculty Advisor</b> Aquila Flower Arntzen Hall 209 Aquila.Flower@wwu.edu	
<b>Faculty Advisor</b> Michael Medler Arntzen Hall 210 360-650-3173 Michael.Medler@wwu.edu	<b>Faculty Advisor</b> Andrew Bach Arntzen Hall 226 Andy.Bach@wwu.edu	<b>Faculty Advisor</b> David Rossiter Arntzen Hall 232 David.Rossiter@wwu.edu	<b>Faculty Advisor</b> Patrick Buckley Arntzen Hall 222 Patrick.Buckley@wwu.edu

**Sample Careers**  
Cartographer | Resource Manager | GIS Database Manager | Water Resource Manager | Park Ranger | Forest Service Employee | College or University Instructor

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

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Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires completion of the coursework above with a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.

3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650- 3748)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### PHASE I

#### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 201 - Understanding Environmental Data and Information
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 203 - Physical Geography
- MATH 114 - Precalculus I or equivalent or higher.
- PLSC 250 - The American Political System

### PHASE II

#### ENVS CORE

#### Required Courses (17-21 credits):

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

#### Geography Major

#### Required Courses (60 credits):

- ENVS 204 - Human Geography
- ENVS 319 - Research and Writing

# ENVIRONMENTAL STUDIES

- ❑ ENVS 320 - GIS I: Introduction to Geographic Information Science
  - ❑ Human Geography - One course from:
    - ENVS 330 - The United States: Society and Environment
    - ENVS 331 - Canada: Society and Environment
    - ENVS 332 - The Pacific Northwest: Society and Environment
    - ENVS 333 - East Asia: Society and Environment
    - ENVS 334 - South Asia: Society and Environment
    - ENVS 335 - The Middle East: Society and Environment
    - ENVS 340 - Developing World
    - ENVS 341 - Population and Resources
    - ENVS 342 - Geography of the World Economy
    - ENVS 343 - Urbanization: Processes and Patterns
  - ❑ Physical Geography - One course from:
    - ENVS 326 - Climatology
    - ENVS 327 - The Soil Environment
    - ENVS 372 - Natural Hazards Planning
  - ❑ Five courses (not taken above; minimum three courses 400-level) from:
    - ENVS 321 - GIS II: Computer Cartography
    - ENVS 322 - Analysis of Spatial Data
    - ENVS 325 - Geography of Landforms
    - ENVS 326 - Climatology
    - ENVS 327 - The Soil Environment
    - ENVS 330 - The United States: Society and Environment
    - ENVS 331 - Canada: Society and Environment
    - ENVS 332 - The Pacific Northwest: Society and Environment
    - ENVS 333 - East Asia: Society and Environment
    - ENVS 334 - South Asia: Society and Environment
    - ENVS 335 - The Middle East: Society and Environment
    - ENVS 340 - Developing World
    - ENVS 341 - Population and Resources
    - ENVS 342 - Geography of the World Economy
    - ENVS 343 - Urbanization: Processes and Patterns
    - ENVS 372 - Natural Hazards Planning
    - ENVS 420 - GIS III: Analysis and Modeling
    - ENVS 421 - GIS IV: Advanced GIS Applications
    - ENVS 422 - Advanced Spatial Analysis
    - ENVS 423 - GIS Processing and Analysis
    - ENVS 426 - Water Resources
    - ENVS 427 - Soil Landscapes
    - ENVS 428 - Biogeography
    - ENVS 430 - Borderlands: Resource Management
    - ENVS 431 - Pacific Rim: Environment, Economy and Sustainability
    - ENVS 441 - Society, Space, and Natural Resources
    - ENVS 442 - Regional Environmental and Economic Resource Modeling
    - ENVS 443 - The Urban Environment
    - ENVS 444 - Colonial Landscapes in the Pacific Northwest
- Students are required to take one ENVS approved course with a capstone "CPST" attribute during their senior year. A capstone class is a field or project based class that can be taken by students from both departments (ENVS/ESCI). This class is meant to be a culminating experience for the students bringing all the varied disciplines together as applied work on a real world issue. One example of a capstone is ENVS/ESCI 493 Environmental Impact Assessment where students work in groups to conduct an assessment.
- ❑ ENVS Capstone - One course from:
    - ENVS 410 - Agroecology and Sustainable Agriculture
    - ENVS 430 - Borderlands
    - ENVS 466 - Greening Business Applications
    - ENVS 474 - Planning for Sustainable Communities
    - ENVS 493 - Environmental Impact Assessment
    - ENVS 496 - Environmental Stewardship
    - ESCI 470 - Ecological Restoration
    - ESCI 490 - Environmental Risk Assessment
    - ESCI 491 - Oceanography of Puget Sound

- ESCI 493 - Environmental Impact Assessment
- Or other ENVS or ESCI approved course with a capstone (CPST) attribute
- One course from: (minimum 10 credits)
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- 6-11 Elective credits (300-400 level) under advisement

## Geography/Social Studies, BA

Department of Environmental Studies, Huxley College of the Environment

### 80-90 credits (Phase I and major)

#### Introduction/What is the Study of Geography/Social Studies?

Geography/Social Studies at Huxley College provides a breadth of knowledge in Geography, Environmental Studies, History, Economics, Anthropology, and Political Science. As a Geography/Social Studies major you will be prepared to explore a wide variety of career paths. These include planning, education, environmental agencies and NGOs, business, tourism, GIS, government service, transportation, and many more. Majors in this degree program are highly encouraged to include a minor in their plan of study such as: Environmental Studies, GIS, Energy Policy, East Asian or Canadian-American Studies, or areas like a foreign language. In addition, it meets Washington State requirements for a teaching endorsement, Geography/Social Studies can also prepare you for teaching in non-traditional settings with or without the additional certification from Woodring College. Students with a degree in Geography/Social Studies can also go on to graduate work in Geography, Education, or Environmental Education.

#### Why Consider a Geography/Social Studies Major?

If you are interested in any of the above career paths or you want to teach Geography and Social Studies to children in grades 5-12 in a public or private school setting, this major will provide the subject area requirements. Secondary Education students who wish to be endorsed in Social Studies may choose this major. However, the Geography/Social Studies degree does not require that a student pursue a teaching certificate. Geography/Social Studies majors interested in Secondary certification must apply separately to the certification programs, such as those in Woodring College of Education. Students usually apply to Woodring in their senior year or after they graduate.

To receive a recommendation for state of Washington certification, students must complete the teacher certification program, including the content methods course, SEC 426, which is offered by the Department of Secondary Education as 1) a part of the undergraduate BA degree, or 2) as a post-baccalaureate program, or 3) as part of the Master's in Education degree. See the Secondary Education section of this catalog for program admission, completion, and teaching certification requirements. Completion of this combined major leads to an endorsement in social studies.

Contact Information		
<b>Department Chair</b> Gigi Berardi Arntzen Hall 204 360-650-2106 Gigi.Berardi@wwu.edu	<b>Geography Education Advisor</b> David Rossiter Arntzen Hall 232 David.Rossiter@wwu.edu <b>Geography Education Advisor</b> Patrick Buckley Arntzen Hall 222 Patrick.Buckley@wwu.edu <b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 wce.wwu.edu/admissions/secondary-education	<b>Huxley College Admissions Advisor</b> Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu
<b>Secondary Education Information</b> Janna Cecka Miller Hall 401C 360-650-3347 wce.wwu.edu/sec/secondary-education		
Sample Careers		

# ENVIRONMENTAL STUDIES

Middle or High School Teacher | Planner | Land-Use Analyst | Eco Tourism Consultant | GIS Technician  
|Community Organizer | Private School Teacher | NGO leader

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

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Those pursuing the Geography/Social Studies BA degree may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined below. You can declare Geography/Social Studies Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card. Those interested in information about secondary education programs may request an appointment through Woodring College of Education in Miller Hall 400, phone 360-650-3327, e-mail address Janna.Cecka@wvu.edu.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Geography (39-47 credits)

This Geography/Social Studies, BA degree requires 60 upper-level credits.

#### Phase I courses (10 to 11 credits)

- ENVS 203 - Physical Geography
- ENVS 204 - Human Geography
- One course from:
  - ESCI 101 - Environmental Studies: A Scientific Approach
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 240 - Geography and World Affairs

#### Introduction to basic tools of Geography (6 to 7 credits)

- Cartographic Geography, one course from:
  - ENVS 220 - Map Reading and Analysis
  - ENVS 221 - Geographic Information Science Survey
  - ENVS 320 - GIS I: Introduction to Geographic Information Science
- Writing and research:
  - ENVS 319 - Research and Writing

#### A broad 300-level overview of Human Geography and its analytical tools (12 to 16 credits)

- Four courses from:
  - ENVS 321 - GIS II: Computer Cartography
  - ENVS 322 - Analysis of Spatial Data
  - ENVS 330 - The United States: Society and Environment
  - ENVS 331 - Canada: Society and Environment
  - ENVS 332 - The Pacific Northwest: Society and Environment
  - ENVS 333 - East Asia: Society and Environment



- ENVS 334 - South Asia: Society and Environment
- ENVS 335 - The Middle East: Society and Environment
- ENVS 340 - Developing World
- ENVS 341 - Population and Resources
- ENVS 342 - Geography of the World Economy
- ENVS 343 - Urbanization: Processes and Patterns

Physical Geography: Exploration of Geography's dual nature (4 to 5 credits)

- One course from:
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment
  - ENVS 372 - Natural Hazards Planning

Advanced 400-level seminar courses (7 to 8 credits)

- Two courses from:
  - ENVS 426 - Water Resources
  - ENVS 427 - Soil Landscapes
  - ENVS 428 - Biogeography
  - ENVS 430 - Borderlands: Resource Management
  - ENVS 431 - Pacific Rim: Environment, Economy and Sustainability
  - ENVS 441 - Society, Space, and Natural Resources
  - ENVS 443 - The Urban Environment
  - ENVS 444 - Colonial Landscapes in the Pacific Northwest

Social Studies (41 to 43 credits)

- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher
- One course from:
  - ECON 207 - Introduction to Macroeconomics
  - ECON 447 - Methods for Teaching About the National Economy in the Public Schools
- One course from:
  - ANTH 201 - Introduction to Cultural Anthropology
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations

## Student/Faculty Designed, BA (Huxley College of the Environment)

Department of Environmental Studies, Huxley College of the Environment

### Introduction

Students who wish to design their own majors within Huxley College should obtain complete guidelines from the Undergraduate Advisors located in ES 539, the Huxley College office. The major must be developed with faculty advisement and must be approved by two faculty members and the Huxley College Curriculum Committee at least four quarters before the student's anticipated graduation.

# ENVIRONMENTAL STUDIES

## Contact Information

### Department Chair

Gigi Berardi  
Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

## Sample Careers

Career choices are determined by the student's interests.

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

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1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Urban Planning major also requires a portfolio, and entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at the central Huxley College office in the fall, winter, and spring quarters.
3. Student Faculty Design Majors must submit their plan of study and a brief written justification to the Huxley Curriculum Coordinating Committee at least four quarters before graduation. Their major must have a unique title and the support of two faculty members. The Academic Coordinating Commission, a standing committee of Western's Faculty Senate, must provide final approval of a Student/Faculty Designed major title.
4. Changes to your major, plan of study or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Urban Planning and Sustainable Development, BA

Department of Environmental Studies, Huxley College of the Environment

**126-131 Credits: Phase I, Phase II, and Major**

## Introduction

This interdisciplinary program prepares students to enter professional fields concerned with the sustainability of the human and natural environment. The Urban Planning and Sustainable Development program consists of a core, and specialization electives. The core incorporates the interdisciplinary foundation of Huxley College's approach to the study of the environment. Urban planning and sustainable development concentrate studies in public policy development, law, and methods and processes of planning and decision making. The specialization elective component of the program is flexible. It allows students to develop an area of special interest, concentrating on a minor in an academic discipline, or to select from a number of thematically oriented clusters of courses.

Huxley's Urban Planning and Sustainable Development major emphasizes an interdisciplinary approach to solving complex problems that face communities from the local to the global level. The program emphasizes a concern for progressive change that is needed towards the design of equitable, healthful, livable, and sustainable communities for present and future generations. The curriculum combines urban planning, sustainable design, environmental policy, and environmental science to provide students with an understanding of the linkages between urban and natural systems and the multidimensional problems in urban development.

The program prepares students with the knowledge and skills necessary to make positive changes towards sustainability in an increasingly complex world. Graduates are prepared for careers in planning agencies, consulting firms, and nonprofit organizations at the local, state, and federal levels of government, as well as advanced graduate study. Students are accepted into the Urban Planning and Sustainable Design major based on the review of their application and on enrollment limits.

## Why Consider a Study of Urban Planning and Sustainable Development Major?

Do you want to use your knowledge and skills to promote positive change in the environment? Do you love solving problems and implementing shared visions in both natural settings and urban communities? Are you interested in the laws and policies that govern environmental change? Then Planning and Sustainable Development is the major for you.

Contact Information		
<b>Department Chair</b>	<b>Huxley College Admissions Advisor</b>	<b>Planning Program Advisor</b>
Gigi Berardi	Kathryn Patrick	Nicholas Zaferatos
Arntzen Hall 204	Environmental Studies 539	Environmental Studies 444
360-650-2106	360-650-3520	Nicholas.Zaferatos@wwu.edu
Gigi.Berardi@wwu.edu	Kathryn.Patrick@wwu.edu	
Sample Careers		
Urban Planner   Environmental Lawyer   County Planner   Environmental Public Relations   Director of Non-Profit Organizations		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.

# ENVIRONMENTAL STUDIES

2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.
3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone 360-650-2817, or 360-650-3748.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### PHASE I

#### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 201 - Understanding Environmental Data and Information
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 203 - Physical Geography
- PLSC 250 - The American Political System
- MATH 114 - Precalculus I

### PHASE II

#### ENVS CORE

#### Required Courses (17-20 credits):

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality

ESCI 463 - Wetlands for Wastewater Treatment

## Urban Planning and Sustainable Development Major

Required Courses (76-78 credits):

- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns (if not taken above)
  - ENVS 361 - Introduction to Planning (if not taken above)
- ENVS 360 - Plan Graphics: Methods in Urban Planning Design Graphics
- ENVS 370 - History of Planning
- ENVS 372 - Natural Hazards Planning
- ENVS 373 - Transportation Systems and Planning
- One course from:
  - ENVS 450 - Science in the Policy Process
  - ENVS 456 - Environmental Governance
- ENVS 457 - Environmental Dispute Resolution
- ENVS 461 - Land Use Law
- ENVS 462 - Planning Theory
- ENVS 470 - Planning Methods
- ENVS 472 - Planning Studio
- ENVS 473 - Planning Studio II Implement
 

Students are required to take one ENVS approved course with a capstone "CPST" attribute during their senior year. A capstone class is a field or project based class that can be taken by students from both departments (ENVS/ESCI). This class is meant to be a culminating experience for the students bringing all the varied disciplines together as applied work on a real world issue. One example of a capstone is ENVS/ESCI 493 Environmental Impact Assessment where students work in groups to conduct an assessment.
- ENVS Capstone - One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands: Resource Management
  - ENVS 466 - Greening Business Applications
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment

Or other ENVS or ESCI approved course with a capstone (CPST) attribute
- One course from (minimum of 10 credits):
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- 20 credits - Specialized electives at the 300- or 400- course level, under advisement.

## Bachelor of Arts in Education

### Environmental Studies — Elementary, BAE

Department of Environmental Studies, Huxley College of the Environment

**51-54 credits (preparatory courses and major)**

# ENVIRONMENTAL STUDIES

## Introduction

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teaching certification requirements. This program fulfills the academic major requirement for elementary education candidates who wish to have a solid background in studies related to the environment. Although environmental studies itself is not an endorsable area, some of the courses might be counted toward endorsement in other areas. Students should contact a faculty advisor for clarification of course work applications.

Students wishing to complete an Environmental Studies Elementary Education major in four years should complete all GUR requirements in their first two years. The preparatory courses may be used to fulfill both Huxley College and GUR requirements.

## Why Consider an Environmental Studies - Elementary Major?

Are you excited about teaching children about the environment? Do you want to teach people to make environmental choices in their lives? Perhaps an Environmental Studies-Elementary major is for you!

Contact Information		
<b>Department Chair</b> Gigi Berardi Arntzen Hall 204 360-650-2106 Gigi.Berardi@wwu.edu	<b>Huxley College Admissions Advisor</b> Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu	<b>Elementary Education Program Manager</b> Miller Hall 301D 360-650-7948
<b>Elementary Education Program Information</b> Miller Hall 300 360-650-3336 <a href="https://wce.wwu.edu/eled/elementary-education">https://wce.wwu.edu/eled/elementary-education</a>	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>	
Sample Careers		
Elementary Teacher		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Those pursuing the Environmental Studies - Elementary BAE degree may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card. Those interested in information about elementary education programs may request an appointment through Woodring College of Education in Miller Hall 262, phone 360-650-3336, email address, Jiasong.Yuen@wwu.edu.

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C (2.0) or better.

## Requirements

### Preparatory courses (8-9 credits)

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - PLSC 250 - The American Political System

### Major (43-45 credits)

- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 492 - Curriculum for Environment and Sustainability
- ESCI 330 - Natural History of the Pacific Northwest
- Two courses from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
- Electives under advisement (23-25 credits)
  - ENVS 300- and 400-level
  - ESCI 300- and 400-level

## Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

# ENVIRONMENTAL STUDIES

## Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Geography — Elementary, BAE

Department of Environmental Studies, Huxley College of the Environment

### 66-73 credits (preparatory courses and major)

#### Introduction

This program is designed to provide necessary depth as well as breadth to teaching majors who wish to specialize in geography in the public school system.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements. This program is designed to provide necessary depth as well as breadth to teaching majors who wish to specialize in geography in the public school system.

Students wishing to complete a Geography Elementary Education major should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory course work that provides a strong background in chemistry, biology and mathematics. The preparatory courses may be used to fulfill both Huxley College and GUR requirements.

#### Why Consider a Geography-Elementary Major?

This major prepares students for a concentration in Geography to accompany their courses in Elementary Education.



**Contact Information****Department Chair**

Gigi Berardi  
Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

**Geography Education Advisor**

David Rossiter  
Arntzen Hall 232  
David.Rossiter@wwu.edu

**Huxley College**

**Admissions Advisor**  
Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

**Elementary Education****Professional Program Information**

Miller Hall 300  
360-650-3336  
<https://wce.wwu.edu/eled/elementary-education>

**Teacher Education Admissions**

Miller Hall 150  
360-650-3313  
<https://wce.wwu.edu/admission>

**Elementary Education****Program Manager**

Miller Hall 301D  
360-650-7948

**Sample Careers**

Elementary Teacher

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Those pursuing the Geography – Elementary BAE degree may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card. Those interested in information about elementary education programs may request an appointment through Woodring College of Education in Miller Hall 262, phone 360-650-3336, e-mail address Jiasong.Yuen@wwu.edu.

**Grade Requirements**

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C (2.0) or better.

**Requirements****Preparatory Courses (29-36 credits)**

- ENVS 203 - Physical Geography
- ENVS 204 - Human Geography
- ESCI 101 - Environmental Studies: A Scientific Approach
- One course from:
  - MATH 107 - Mathematical Reasoning and Its Applications
  - MATH 112 - Functions and Algebraic Methods
  - MATH 114 - Precalculus I
  - MATH 156 - Algebra With Applications to Business and Economics
- Any BCOM or CCOM GUR requirement course
- Two Natural Science GUR lab courses

# ENVIRONMENTAL STUDIES

## Major (37 credits)

- ENVS 220 - Map Reading and Analysis
- ENVS 221 - Geographic Information Science Survey
- ENVS 240 - Geography and World Affairs
- ENVS 319 - Research and Writing
- ENVS 330 - The United States: Society and Environment
- ENVS 340 - Developing World
- 20 Elective credits under advisement from:  
ENVS 300- and 400-level courses

## Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching

- ❑ ELED 480 - Literacy: Beginning Communicators
- ❑ ELED 481 - Literacy: Fluent Communicators
- ❑ ELED 491 - September Experience
- ❑ ELED 492 - Practicum: Experience in Literacy Methods
- ❑ ELED 494 - Internship - Elementary
- ❑ HLED 455 - Health Education Grades K-8
- ❑ MATH 381 - Teaching K-8 Mathematics I
- ❑ MATH 382 - Teaching K-8 Mathematics II
- ❑ MATH 383 - Teaching K-8 Mathematics III
- ❑ MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- ❑ PE 345 - Physical Education for Elementary School
- ❑ SCED 480 - Science Methods and Curriculum for the Elementary School
- ❑ SCED 490 - Laboratory/Field Experience in Elementary Science

## Master of Arts

### Environmental Studies, MA

Department of Environmental Studies, Huxley College of the Environment

#### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Darby, Kate J.**, PhD, Social and environmental justice, environmental justice pedagogy in higher education, sustainable food systems and urban socio-ecological systems.

**Flower, Aquila**, PhD, environmental change from a geographic perspective using a suite of methodological approaches drawn from the fields of dendrochronology, ecology, statistics, and geospatial analysis.

**Green, Rebekah**, PhD, human ecology, the Disaster Risk Reduction minor, and advises The Planet publication.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Kamel, Nabil**, PhD., social and environmental justice, post-disaster recovery, political economy of urbanization, sustainable development, critical urban theory, housing and poverty, physical planning, urban design, regional and international development.

**Lanning, Tamara (Tammi)**, PhD, federal land use policy and planning, collaborative planning, community economic development, and the social components of bioenergy development.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Neff, Mark W.**, PhD, environmental governance and policy, environmental studies, sustainability

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Stanger, Nicholas R.**, PhD, environmental education and exploration of the emotional, ecological, educational, indigenous, and complexity systems

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

# ENVIRONMENTAL STUDIES

## Introduction

The MA degree in Environmental Studies prepares students to address complex environmental problems using a highly interdisciplinary approach. The program prepares students in the analysis, development, conservation, and management frameworks of environmental resources for careers in business, government, planning, consulting, teaching, and research.

## Application Information

**Deadline:** Students generally will be admitted into the MA in Environmental Studies fall quarter only. The Graduate Program Committee will begin reviewing application materials until the enrollment limit is reached or on June 1, whichever comes first. Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test; applicants with advanced degrees are not required to submit GRE scores.

**Supporting Materials:** An application for admission into the MA program in Environmental Studies must include a one- to two-page statement of purpose addressing the following:

1. Which specialization (Geography, Environmental Policy, Urban Planning and Sustainable Development, or General Environmental Studies) you are interested in pursuing and why. How has your prior experience prepared you to work in that?
2. Why do you wish to pursue a graduate degree in Environmental Studies at Huxley College?
3. A plan for coursework you are interested in taking (See University Catalog) towards your specialization and a proposed (tentative) research topic.

## Requirements

Students with a 4-year degree in Environmental Studies or related fields, who meet the requirements of the Graduate School and who show evidence of superior scholarship, are encouraged to apply.

## Thesis/Project

The thesis option requires satisfactory completion of a research project emphasizing original theoretical or applied research and resulting in a comprehensive written thesis, grounded in the appropriate literature. The candidate will provide a public seminar based on the thesis, after an oral defense and acceptance of the thesis by the candidate's thesis committee. The scale and scope of work for the project option will be commensurate with the scale and scope of work for the thesis option. The project option requires satisfactory completion of an applied project emphasizing a tangible product and a comprehensive individual written report on the project from each candidate. Each candidate will also provide an individual public seminar based on the project, after an oral defense and acceptance of the project by the candidate's project committee.

## Committee Makeup

The thesis/project committee will have a minimum of two graduate faculty members from Environmental Studies Graduate Faculty; one will serve as chair. The third member, with approval of the graduate advisor and Graduate School, can come from elsewhere on campus or, another university or can be a professional in the field. Your committee must be formed by the third quarter of residency (Thesis Topic Approval Card). Students must meet monthly with the committee chair to report progress on their thesis/project, and with the entire committee as needed. Failure to make satisfactory progress on the thesis/project over an extended time period may result in the student's termination from the program.

## Thesis/Project Proposal Presentation

The student is to make a public presentation of the proposed thesis/project, followed by questions and discussion. The purpose of this presentation is to allow the student to share the proposed thesis/project with a

broader audience than the thesis committee to facilitate further refinement of the work. The presentation will be made as soon as the student and the thesis/project committee have agreed upon a topic, typically in the third quarter of residency. Major changes to the thesis topic will require a new presentation at the discretion of the thesis committee.

### Program Requirements (minimum 45 credits)

- ENVS 501 - Research and Projects in Environmental Studies
- ENVS 502 - Environmental Research and Projects Frameworks
- ENVS 503 - Communicating Research Results
- One course from (12 credits):
  - ENVS 690 - Thesis OR
  - ENVS 691 - Field Project
- 10 credits or less of approved 400-level work may be included in the program. No more than 4 elective credits of ENVS 595 (Teaching Practicum) may be used toward the MA degree in Environmental Studies.

## Master of Education

### Environmental Education, Non-Thesis, MEd

Huxley College of the Environment

#### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics

**Flower, Aquila**, PhD, environmental change from a geographic perspective using a suite of methodological approaches drawn from the fields of dendrochronology, ecology, statistics, and geospatial analysis.

**Green, Rebekah**, PhD, human ecology, the Disaster Risk Reduction minor, and advises The Planet publication.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine

# ENVIRONMENTAL STUDIES

ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. John C. Miles

## Goals

The non-thesis program serves students who want to develop an individualized applied project as a route to building their qualifications in environmental education.

The philosophy of environmental education at Huxley College is that it is to be broad and inclusive. The goal of environmental education, in the words of the 1976 Belgrade Charter that saw the international spread of the profession, is "to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones." Today environmental education takes has diversified greatly, occurring in formal classrooms, school grounds, nature centers, outdoor and environmental education programs, government agency programs, mass- and social-media venues, and community-based programs in businesses, faith communities, international conservation, or environmental-social justice movements. Environmental education programming may include science, history and cultural or social studies, the arts or many other disciplines. The process may involve inquiry, social learning, or many other varieties of structured or emergent curriculum approaches. Environmental education focused on both the intrinsic development of the learner in his or her culture as it is about the human relationship to nature.

The non-thesis option serves teachers and others who wish to develop background and skill to incorporate environmental education into their educational work. Students develop a focus which requires the application of knowledge to design a field project which suits their vision of environmental education. This program does not provide teacher certification. If desired, that must be pursued separately. All graduate students are expected to develop and implement creative projects that will aid their own practice with the guidance and advice of the program advisor and other teachers.

## Prerequisites

All applicants should have experience in the field of environmental education and a basic background in natural history. Each applicant's background will be examined to determine if additional preparation is needed.

## Application Information

**Deadline:** Please refer to Graduate School deadline dates. This program specialization admits students for any quarter, but fall quarter is the best time to begin so that students in this option may go through the core program with students from the Residency option.

## Supporting Materials:

- Graduate Record Exam or Miller Analogies Test, official transcript(s) and three letters of reference; applicants with advanced degrees are not required to submit test scores
- One- to two-page statement of purpose

## Program Requirements (46-52 credits)

- Core requirements (20 credits)
  - ENVS 501 - Research and Projects in Environmental Studies
  - ENVS 582 - Curriculum in Environmental Education
  - ENVS 585 - Environmental Education Foundations
  - ENVS 587 - Conservation Psychology

ENVS 588 - Assessment, Evaluation and Research in Environment Education

□ Requirements in specialization (6-12 credits)

ENVS 691 - Field Project

□ Electives (20 credits): Courses selected under advisement and including at least 10 credits in environmental studies or environmental sciences.

## Environmental Education, Residency, Non-Thesis, MEd

Huxley College of the Environment

### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoaerchology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Flower, Aquila**, PhD, environmental change from a geographic perspective using a suite of methodological approaches drawn from the fields of dendrochronology, ecology, statistics, and geospatial analysis.

**Green, Rebekah**, PhD, human ecology, the Disaster Risk Reduction minor, and advises The Planet publication.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. John C. Miles

# ENVIRONMENTAL STUDIES

## Goals

This Residency program prepares environmental educators to play instructional and managerial roles in not-for-profit organizations rather than the formal classroom.

The philosophy of environmental education at Huxley College is that it is to be broad and inclusive. The goal of environmental education, in the words of the 1976 Belgrade Charter that saw the international spread of the profession, is "to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones." Today environmental education takes has diversified greatly, occurring in formal classrooms, school grounds, nature centers, outdoor and environmental education programs, government agency programs, mass- and social-media venues, and community-based programs in businesses, faith communities, international conservation, or environmental-social justice movements. Environmental education programming may include science, history and cultural or social studies, the arts or many other disciplines. The process may involve inquiry, social learning, or many other varieties of structured or emergent curriculum approaches. Environmental education focused on both the intrinsic development of the learner in his or her culture as it is about the human relationship to nature.

The Residency track involves a close collaboration between Huxley College and the North Cascades Institute (NCI). NCI awards a Certificate in Leadership and Nonprofit Administration for completion of the residency. Northwest Naturalist Certification is also offered. Students in this track produce a portfolio of projects stemming from coursework and the residency, including curriculum design, natural history, nonprofit organization, evaluation, and professional presentation; in addition they must pass a comprehensive exam. This program does not provide teacher certification. If desired, that must be pursued separately. All graduate students are expected to develop and implement creative projects that will aid their own practice, with the guidance and advice of the program advisor and other teachers.

## Prerequisites

All applicants should have experience in the field of environmental education and a basic background in natural history. Each applicant's background will be examined to determine if additional preparation is needed.

Application Information

**Admit Quarter:** This track admits students only in the summer.

**Deadline:** For priority consideration, applications should be received by February 1.

Supporting Materials:

- Graduate Record Exam or Miller Analogies Test and official transcript(s) and three letters of reference; applicants with advanced degrees are not required to submit test scores
- North Cascades Institute supplemental application and questionnaire <http://ncascades.org/study>

## Program Requirements (45 credits)

- Core requirements (20 credits)
  - ENVS 501 - Research and Projects in Environmental Studies
  - ENVS 582 - Curriculum in Environmental Education
  - ENVS 585 - Environmental Education Foundations
  - ENVS 587 - Conservation Psychology
  - ENVS 588 - Assessment, Evaluation and Research in Environment Education
- A written and oral comprehensive exam
- Requirements in specialization (25 credits)
  - ENVS 580 - Place-based Learning in the North Cascades
  - ENVS 581 - Practicum in Teaching Natural and Cultural History
  - ENVS 583 - Natural History and Science of the North Cascades
  - ENVS 584 - Leadership and Nonprofit Administration
  - ENVS 589 - Professional Writing and Presentation



## Environmental Education, Thesis, MEd

Huxley College of the Environment

### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Darby, Kate J.**, PhD, Social and environmental justice, environmental justice pedagogy in higher education, sustainable food systems and urban socio-ecological systems.

**Flower, Aquila**, PhD, environmental change from a geographic perspective using a suite of methodological approaches drawn from the fields of dendrochronology, ecology, statistics, and geospatial analysis.

**Green, Rebekah**, PhD, human ecology, the Disaster Risk Reduction minor, and advises The Planet publication.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Laniga, Tamara (Tammi)**, PhD, federal land use policy and planning, collaborative planning, community economic development, and the social components of bioenergy development.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. John C. Miles

### Goals

The thesis program serves students who want to contribute to the knowledge base of environmental education as a route to building their qualifications in environmental education.

The philosophy of environmental education at Huxley College is that it is to be broad and inclusive. The goal of environmental education, in the words of the 1976 Belgrade Charter that saw the international spread of the

## ENVIRONMENTAL STUDIES

profession, is "to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones." Today environmental education takes has diversified greatly, occurring in formal classrooms, school grounds, nature centers, outdoor and environmental education programs, government agency programs, mass- and social-media venues, and community-based programs in businesses, faith communities, international conservation, or environmental-social justice movements. Environmental education programming may include science, history and cultural or social studies, the arts or many other disciplines. The process may involve inquiry, social learning, or many other varieties of structured or emergent curriculum approaches. Environmental education focused on both the intrinsic development of the learner in his or her culture as it is about the human relationship to nature.

The thesis option serves students who wish to pursue a scholarly path in environmental education while also developing practical skills. Students develop a question which requires conducting original theoretical or empirical research, and which suits their vision of environmental education. This program does not provide teacher certification. If desired, that must be pursued separately. All graduate students are expected to develop and implement creative projects that will aid their own practice, with the guidance and advice of the program advisor and other teachers.

### Prerequisites

All applicants should have experience in the field of environmental education and a basic background in natural history. Each applicant's background will be examined to determine if additional preparation is needed.

### Application Information

**Deadline:** Please refer to Graduate School deadline dates. This program specialization admits students for any quarter, but fall quarter is the best time to begin so that students in this option may go through the core program with students from the Residency option.

### Supporting Materials:

- Graduate Record Exam or Miller Analogies Test and official transcript(s) and three letters of reference; applicants with advanced degrees are not required to submit test scores
- One- to two-page statement of purpose

### Program Requirements (46-52 credits)

- Core requirements (20 credits)
  - ENVS 501 - Research and Projects in Environmental Studies
  - ENVS 582 - Curriculum in Environmental Education
  - ENVS 585 - Environmental Education Foundations
  - ENVS 587 - Conservation Psychology
  - ENVS 588 - Assessment, Evaluation and Research in Environment Education
- Requirements in specialization (6-12 credits)
  - ENVS 690 - Thesis
- Electives (20 credits): Courses selected under advisement and including at least 10 credits in environmental studies or environmental sciences.

## Master of Science

### Geography Thesis, MS

**The Geography, Thesis, MS program is no longer accepting applications. Prospective applicants should refer to the Environmental Studies, MA degree in the catalog.**

Department of Environmental Studies, Huxley College of the Environment

## Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Andy Bach, Arntzen Hall 226, (360-650-4774)

## Program Goals

The program prepares students in the development and management of environmental resources for careers in business, government, planning, consulting, teaching and research.

The focus of the MS degree in geography is on the development and management of environmental resources. The program is designed to allow students to develop and integrate social and natural science course work in a regional context. Students are provided with an opportunity to understand the spatial, ethical and societal (cultural) basis for the protection and management of resources.

## MS Specializations

- Resource Conservation and Management: Study of biophysical and socioeconomic processes in natural systems; a variety of perspectives and techniques are used to investigate and assess management and development policies.

## ENVIRONMENTAL STUDIES

- **Regional Development and Environmental Policy:** Study of regional economic development processes in the context of development and planning; environmental elements — natural and human — are examined in framing development plans and policies toward improving regional community service
- **Earth Surface Processes:** Study of physical processes occurring at the earth/atmosphere interface; coastal, glacial, hillslope, eolian, fluvial and soil environments are examples of the complex and dynamic systems which are examined under conditions of alteration by human or natural forces

### Prerequisites

Students with a degree in geography or allied fields, who meet the requirements of the Graduate School and who show evidence of superior scholarship, are particularly encouraged to apply. Students with degrees in fields other than geography will be considered but must acquire background, under advisement, through course work or other approved methods, in introductory human or cultural geography, introductory physical geography, regional geography, a GIS course, and two upper-division courses or equivalent in physical geography/geographic information science or urban/economic geography. Knowledge of intermediate-level statistics is required of all students as evidenced by satisfactorily completing course work or as assessed by the program advisor. A plan for completion of any outstanding prerequisites must be described in the statement of purpose and approved by the Department of Environmental Studies Graduate Program Committee prior to admission.

### Admissions Information

**Deadline:** Students generally will be admitted into the MS in geography fall quarter only. Admission for subsequent quarters will be considered on a space-available basis. The Graduate Program Committee will begin reviewing application materials until the enrollment limit is reached or on June 1, whichever comes first. Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test; applicants with advanced degrees are not required to submit GRE scores.

**Supporting Materials:** An application for admission into the MS program in geography must include a one- to two page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in geography, and what future expectations she or he has for the MS degree. The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website, [huxley.wvu.edu/departments-overview-page](http://huxley.wvu.edu/departments-overview-page), prior to contacting potential advisors; students are admitted to the program only upon agreement of potential faculty advisors.

### Program Requirements (minimum 45 to 69 credits)

- EGEO 501 - History and Philosophy of Geography
- EGEO 502 - Geographic Frameworks for Resource Analysis
- EGEO 503 - Research Problems
- EGEO 504 - Geographic Methods and Techniques
- 17 credits of elective courses selected under advisement
- 12 credits of EGEO 690 - Thesis
- 10 credits or less of approved 400-level work may be included in the program. No more than 4 elective credits of EGEO 595 (teaching practicum) may be used toward the MS degree in geography.

### Additional Information

#### Thesis

The thesis requires satisfactory completion of a research project emphasizing original theoretical or applied research and resulting in a comprehensive written thesis. The candidate will provide a public seminar based on the thesis, after an oral defense and acceptance of the thesis by the candidate's thesis committee.

## Committee Makeup

The thesis committee will have a minimum of two graduate faculty members from Huxley College; one will serve as chair. One of these two members is to be a geographer. The third member, with approval of the graduate advisor and Graduate School, can come from elsewhere.

## Thesis Proposal Presentation

The student is to make a public presentation of her/his proposed research, followed by questions and discussion. The purpose of this presentation is to allow the student to share his/her proposed research with a broader audience than the thesis committee to facilitate further refinement of the work. The student may be asked to expand the discussion on specific theoretical and/or empirical content of her/his intended thesis, as well as the broader scholarly field. The presentation will be made as soon as the student and the thesis committee have agreed upon a topic, typically in the third quarter of residency. Major changes to the thesis topic will require a new presentation at the discretion of the thesis committee.

## Minor

### Disaster Risk Reduction Minor

Department of Environmental Studies, Huxley College of the Environment

#### 24-27 credits

#### Introduction

Huxley College's disaster reduction and emergency planning minor is designed to introduce the student to natural hazards, their impacts on society, and strategies for reducing these impacts. All students at Western may apply for admittance through the Department of Environmental Studies office at any time.

#### Contact Information

##### Department Chair

Gigi Berardi  
Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Applicants should submit a WWU transcript and academic history, a WWU transfer equivalency report, if applicable, and a 500-word essay explaining how the minor would enhance the applicant's major studies and career goals. Admission to the minor is competitive and space is limited.

#### Grade Requirements

A grade of C- or better is required for all students' minor courses.

#### Requirements

- ENVS 362 - Theory and Practice of Emergency Management
- ENVS 372 - Natural Hazards Planning
- ENVS 465 - Disaster Risk Reduction
- ENVS 476 - Disaster Reduction and Emergency Planning Studio
- ENVS 203 - Physical Geography (or equivalent course with advisor permission)
- One course from (or equivalent course with advisor permission):
  - ENG 302 - Introduction to Technical and Professional Writing

## ENVIRONMENTAL STUDIES

ENVS 319 - Research and Writing

- Select one upper division course of 2 credits or more, from the list below, in consultation with minor advisor:

COMM 322 - Civil Discourse as Learning Interaction  
ENVS 340 - Developing World  
ENVS 400 - Directed Independent Study  
ENVS 419 - Applications in GIS  
ENVS 442 - Regional Environmental and Economic Resource Modeling  
ENVS 454 - Environmental Policy Analysis  
ENVS 457 - Environmental Dispute Resolution  
ENVS 470 - Planning Methods  
ENVS 497A - Perception of Environmental Risk  
ESCI 392 - Introduction to Global Change  
FIN 454 - Risk Management and Insurance  
JOUR 330 - Principles of Public Relations  
PLSC 353 - State and Local Politics  
PLSC 390 - The Politics of Development  
SOC 340 - Sociology of Organizations  
SOC 348 - Global Health

### Environmental Education Minor

Department of Environmental Studies, Huxley College of the Environment

**29-30 credits**

#### Introduction

The goal of the environmental education minor is that the student understand and be able to use basic environmental education approaches within the context of such careers as environmental science, environmental policy, sustainability, and so on. The minor equips the student with conceptual foundations and beginning methods in environmental education together with natural history and humanistic background for understanding human relations with the environment.

#### Contact Information

##### Department Chair

Gigi Berardi  
Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ENVS 305 - Environmental History and Ethics
- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 492 - Curriculum for Environment and Sustainability
- ESCI 330 - Natural History of the Pacific Northwest
- One course from:

- ESCI 325 - Fundamentals of Ecology
- ESCI 310 - Environmental Systems
- Specialized electives (10 credits):
  - ENVS 300- and 400-level
  - Or other approved 300- and 400- level course

## Environmental Policy Minor

Department of Environmental Studies, Huxley College of the Environment

**20-24 credits**

### Contact Information

<b>Department Chair</b>	<b>Huxley College Admissions Advisor</b>
Gigi Berardi	Kathryn Patrick
Arntzen Hall 204	Environmental Studies 539
360-650-2106	360-650-3520
Gigi.Berardi@wwu.edu	Kathryn.Patrick@wwu.edu

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENVS 304 - Environment and Resource Policy
- One course from:
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 316 - Explorations in Environmental Studies
- One course from each of the four categories of environmental policy:
  - Law - One course from:**
    - ENVS 343 - Urbanization: Processes and Patterns
    - ENVS 461 - Land Use Law
  - Planning - One course from:**
    - ENVS 361 - Introduction to Planning
    - ENVS 443 - The Urban Environment
  - Policy - One course from:**
    - ENVS 450 - Science in the Policy Process
    - ENVS 451 - Natural Resource Policy
    - ENVS 454 - Environmental Policy Analysis
  - Skills - One course from:**
    - ENVS 456 - Environmental Governance
    - ENVS 457 - Environmental Dispute Resolution

## Environmental Studies Minor

Department of Environmental Studies, Huxley College of the Environment

**24 credits**

# ENVIRONMENTAL STUDIES

## Contact Information

### Department Chair

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### Huxley College Admissions Advisor

Kathryn Patrick  
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360-650-3520  
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## Major/Career Resources

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## How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ESCI 101 - Environmental Studies: A Scientific Approach
- Two courses from
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
  - ESCI 310 - Environmental Systems
- Electives under advisement (10 credits)
  - ENVS 320 - GIS I: Introduction to Geographic Information Science
  - ENVS 326 - Climatology
  - ENVS 372 - Natural Hazards Planning
  - ENVS 428 - Biogeography
  - ENVS 441 - Society, Space, and Natural Resources
  - ENVS 300- and 400-level
  - ESCI 300- and 400-level
  - Maximum 1 course allowed from:
    - FAIR 331N - Natural History
    - FAIR 335N - Visioning Sustainable Futures

## Geographic Information Science Minor

Department of Environmental Studies, Huxley College of the Environment

### 22-24 credits

## Contact Information

### Department Chair

Gigi Berardi  
Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.



## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENVS 320 - GIS I: Introduction to Geographic Information Science
- ENVS 321 - GIS II: Computer Cartography
- ENVS 420 - GIS III: Analysis and Modeling
- ENVS 421 - GIS IV: Advanced GIS Applications
- Two courses from the following list or by advisement:
  - ENVS 419 - Applications in GIS
  - ENVS 422 - Advanced Spatial Analysis
  - ENVS 423 - GIS Processing and Analysis
  - ESCI 442 - Introduction to Remote Sensing

## Geography Minor

Department of Environmental Studies, Huxley College of the Environment

### 25 credits

### Introduction

Geography is the science of place and space, Geographers ask where things are located on the surface of the Earth, why they are located where they are, how places differ from one another, and how people interact with the environment. Geography links the social sciences and natural sciences together, studying the relationships between human activity and natural systems.

### Why Consider a Geography Minor?

Are you curious about the world, and its physical and human dimensions? Do you love maps? Are you comfortable with spatial problem solving?

#### Contact Information

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360-650-3520  
Kathryn.Patrick@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENVS 203 - Physical Geography
- ENVS 204 - Human Geography
- 17 Elective credits of upper division courses under departmental advisement from:

## ENVIRONMENTAL STUDIES

ENVS 319 - Research and Writing  
ENVS 320 - GIS I: Introduction to Geographic Information Science  
ENVS 321 - GIS II: Computer Cartography  
ENVS 322 - Analysis of Spatial Data  
ENVS 326 - Climatology  
ENVS 327 - The Soil Environment  
ENVS 330 - The United States: Society and Environment  
ENVS 331 - Canada: Society and Environment  
ENVS 332 - The Pacific Northwest: Society and Environment  
ENVS 333 - East Asia: Society and Environment  
ENVS 334 - South Asia: Society and Environment  
ENVS 335 - The Middle East: Society and Environment  
ENVS 340 - Developing World  
ENVS 341 - Population and Resources  
ENVS 342 - Geography of the World Economy  
ENVS 343 - Urbanization: Processes and Patterns  
ENVS 419 - Applications in GIS  
ENVS 420 - GIS III: Analysis and Modeling  
ENVS 421 - GIS IV: Advanced GIS Applications  
ENVS 422 - Advanced Spatial Analysis  
ENVS 423 - GIS Processing and Analysis  
ENVS 426 - Water Resources  
ENVS 427 - Soil Landscapes  
ENVS 428 - Biogeography  
ENVS 430 - Borderlands: Resource Management  
ENVS 431 - Pacific Rim: Environment, Economy and Sustainability  
ENVS 441 - Society, Space, and Natural Resources  
ENVS 442 - Regional Environmental and Economic Resource Modeling  
ENVS 443 - The Urban Environment  
ENVS 444 - Colonial Landscapes in the Pacific Northwest

### Sustainable Design Minor

Combined minor offered by the Department of Environmental Studies, Huxley College of the Environment and the Department of Engineering and Design, College of Science and Engineering

#### 30-34 Credits

#### Introduction

Huxley College of the Environment and the Department of Engineering Technology jointly offer a minor in Sustainable Design. The goal of the program is to enable students with strengths in design or in environmental studies to gain complementary skills in the other area so as to pursue sustainable design careers more effectively. The program is also open to students from any area that would benefit by the set of concepts and skills offered.

#### Contact Information

##### Department Chair

Gigi Berardi  
Arntzen Hall 204  
360-650-2106  
Gigi.Berardi@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process)

Students are accepted into the sustainable design minor by application based on their demonstrated affinity to integrate environmental systems knowledge and sustainable design principles, and on enrollment limits. Students submit an application and a portfolio of work. Applications are accepted semi-annually on the third

Friday of fall and spring quarters. See WWU Industrial Design website and the Huxley College of the Environment website.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENVS 116 - Sustainability Literacy I
- ENVS 361 - Introduction to Planning
- ENVS 471 - Campus Sustainability Planning Studio
- ENVS 474 - Planning for Sustainable Communities
- ID 110 - Industrial Design Foundation 1
- ID 320 - Industrial Design CAD Skills
- One course from: \*
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 380 - Energy and Environment
  - ESCI 392 - Introduction to Global Change
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
  - FAIR 335N - Visioning Sustainable Futures
  - \*or approved substitute
- Electives under advisement (6-8 credits):
  - ACCT 484 - Environmental Accounting/ Sustainability Reporting
  - ECON 383 - Environmental Economics
  - ECON 384 - Energy Economics
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology \*\*
  - ID 130 - History of Industrial Design
  - ID 310 - Perspective and Rendering 1
  - \*\*ESCI courses cannot be counted twice

## WWU Certificate (Non-Degree)

### Geographic Information Science Certificate

Department of Environmental Studies, Huxley College of the Environment

**31-33 credits**

#### Introduction

The Geographic Information Science Certificate provides students with in-depth training in Geographic Information Science theory and techniques. Through an intensive series of courses in GIS, statistics, and remote sensing and the completion of original research projects, students will gain advanced skills in the development, management, analysis, and visualization of spatial data. The certificate prepares students for careers as geospatial analysts and GIS technicians, and is a valuable complement to many majors.

#### Contact Information

##### Department Chair

Gigi Berardi  
 Arntzen Hall 204  
 360-650-2106  
[Gigi.Berardi@wwu.edu](mailto:Gigi.Berardi@wwu.edu)  
 Major/Career Resources

# ENVIRONMENTAL STUDIES

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

- Letter of intent stating a) why you are interested in completing the GIS Certificate, b) how your prior education and work experience has prepared you for the GIS Certificate, and c) your career goals.
- Resume outlining your education and professional history.
- Official Transcripts: only required if you previously completed relevant coursework at another institution.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- One course from the following list or by advisement:
    - DSCI 305 - Applied Business Statistics
    - ENVS 322 - Analysis of Spatial Data
    - ESCI 340 - Biostatistical Analysis
  - ENVS 320 - GIS I: Introduction to Geographic Information Science
  - ENVS 321 - GIS II: Computer Cartography
  - ENVS 420 - GIS III: Analysis and Modeling
  - ENVS 421 - GIS IV: Advanced GIS Applications
  - ENVS 422 - Advanced Spatial Analysis
  - ESCI 442 - Introduction to Remote Sensing
  - 3-4 credits from the following list or by advisement:
    - ENVS 419 - Applications in GIS
    - ENVS 423 - GIS Processing and Analysis
    - ENVS 498B - Internship
- \*300-level course requirements may be waived in some cases based on the applicant's prior completed courses and work history.

## Environmental Studies Courses

### ENVS 110 - Ecogastronomy: The Art and Science of Food

An introduction to the art and science of food production through scholarly and journalistic critiques of food systems and cultures. Topics include the Slow Food movement and gastronomical sciences, ecological agriculture, sensory taste science, and the political economy of food.

**Credits:** 2  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### ENVS 111 - Ecogastronomy Discussion

This is a discussion-oriented class to accompany ENVS 110: An introduction to the art and science of food. The class will include discussion of the regional geography of agriculture and consumption

patters, Slow Food as a social movement, and ideas for sensible food systems in a university setting.

**Credits:** 1  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### ENVS 116 - Sustainability Literacy I

This course is an introductory course in sustainability literacy. This course reviews emerging issues in global sustainability studies and introduces students to writing and problem solving skills. Emphases are in multidisciplinary approaches that address complex social, environmental, and economic interrelationships in sustainable development.

**Credits:** 3  
**Grade Mode:** Letter

### ENVS 118 - Topics in Environmental Studies - College Quest

Study of various environmental topics. Supported

through Extended Education & Summer Programs, College Quest youth program is offered exclusively to high school students (grades 10-12). Not available to Huxley majors. Repeatable to 4 credits. S/U grading.

**Credits:** 1-2  
**Grade Mode:** S/U

### **ENVS 195 - Local Perspectives on Environment and Sustainability (Viking Launch)**

Explore climate science through research and field observations, with a special focus on the Nooksack River watershed and examine the environmental impacts of our energy, waste, food and transportation choices. Discover how local schools, governments, non-profit organizations, businesses and individuals are working together to help solve the problems associated with climate change and take action by participating in a service learning project. Acquire carbon footprint analysis training and work with staff at the Washington Department of Ecology Bellingham field office to implement their 'Carbon Smart at Work' program. Document your experience with photographs, field audio and writing to create a culminating presentation. S/U grading.

**Credits:** 2  
**Grade Mode:** S/U

### **ENVS 201 - Understanding Environmental Data and Information**

This class will help students navigate the complicated intersection of peer-reviewed scientific literature and the popular news media outlets that often report on environmental research and news. The intention of the class is to introduce the basic logical, statistical, and analytical tools necessary for broad participation in environmental fields including both physical and social sciences.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 with a C- or better.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

### **ENVS 202 - Introduction to Environmental Studies and Sustainability**

A basic overview of environmental issues in the United States and globally. An emphasis will be placed on environmental and human sustainability in a social science context.

**Credits:** 3

**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **ENVS 203 - Physical Geography**

Principles and techniques in analysis of areal distribution in the natural environment; landforms, water, climate, soils, vegetation.

**Prerequisites & Notes:** Minimum of one university-level natural science GUR.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

### **ENVS 204 - Human Geography**

This course explores regional patterns of population and settlement across the globe and introduces students to concepts and techniques in the spatial analysis of economic, cultural, and political organizations.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **ENVS 220 - Map Reading and Analysis**

Interpretation of map symbols and content at different scales; introduction to coordinate systems and map projections; analysis of different types of maps and charts.

**Credits:** 3  
**Grade Mode:** Letter

### **ENVS 221 - Geographic Information Science Survey**

Introduction to computer-based tools for describing, analyzing and providing decision making on geographical issues. Provides a survey of computer- and Web- based tools such as Geographic Information Systems, electronic atlases, thematic mapping systems, computer cartography and remote sensing through lectures and hands-on activities.

**Prerequisites & Notes:** Suitable Intermediate Math Placement Test score or MATH 112 with a C or better.

**Credits:** 3  
**Grade Mode:** Letter  
**GUR Attributes:** QSR

### **ENVS 240 - Geography and World Affairs**

Geographical analysis of selected demographic, economic, political and social problems of the contemporary world.

# ENVIRONMENTAL STUDIES

**Credits:** 2

**Grade Mode:** Letter

**GUR Attributes:** SSC

## **ENVS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **ENVS 303 - Human Ecology and Sustainability**

The course provides an in-depth look at human and environmental systems interaction. As such, students need familiarity with environmental concepts, either through ENVS 202 or through the Huxley major prerequisites. Some students with self-designed majors or Huxley minors may also be well prepared and can enter through instructor permission.

**Prerequisites & Notes:** Huxley majors or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

## **ENVS 304 - Environment and Resource Policy**

An examination of environmental and resource policy in the United States. What is policy, how is it made and how does it change? The history of environmental policy is examined, and current environmental policy surveyed. Federal, state, regional and local jurisdictions and how they interact in the policy arena are examined. Primary forces affecting environmental policy are reviewed and analyzed. Several case studies are presented.

**Prerequisites & Notes:** Huxley majors or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

## **ENVS 305 - Environmental History and Ethics**

Inquiry into the historical and ideological origins of socio-environmental dilemmas and responses to them, and examination of ethical assumptions and approaches for determining how to balance the varied interests and risks these dilemmas entail.

**Prerequisites & Notes:** Huxley major or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

## **ENVS 306 - Readings in Env Studies**

This is a variable credit, directed readings course. Course will foster critical analysis and independent thought and learning in the field of environmental studies. Students will critically examine data and information used to support a particular point of view. This course is only offered through EESP as correspondence course.

**Prerequisites & Notes:** ENVS 202 or instructor permission.

**Credits:** 1-6

**Grade Mode:** Letter

## **ENVS 307 - Writing in Environmental Studies**

This is a variable credit, directed writing intensive course. Course will foster critical analysis and independent thought and learning in the field of environmental studies. Students will critically examine data and information used to support a particular point of view. The course is designed to enable students to satisfy from one to three upper-division writing proficiency points. This course is only offered through EESP as a correspondence course.

**Prerequisites & Notes:** ENVS 202 or instructor permission.

**Credits:** 1-3

**Grade Mode:** Letter

## **ENVS 308 - National Parks: History of an American Innovation**

Survey of the history, purpose, and meaning of the US national park system; and what the parks reveal about American culture and attitudes toward nature. This course is only offered through EESP as a correspondence course.

**Prerequisites & Notes:** ENVS 202 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

## **ENVS 316 - Explorations in Environmental Studies**

Introduction to solving environmental problems in a policy context, applications of analytical, written, verbal and quantitative skills to address environmental concerns in an interdisciplinary manner.

**Prerequisites & Notes:** Declared Huxley major or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

## **ENVS 319 - Research and Writing**

Source materials, research and writing techniques; emphasis on the nature and development of geography and planning.

**Prerequisites & Notes:** ENVS 203, ENVS 204 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 320 - GIS I: Introduction to Geographic Information Science**

An introduction to Geographic Information Science concepts and Geographic Information Systems (GIS) technology. Lectures will focus on the nature of spatial data, spatial data sources, and the input, manipulation, analysis, and display of spatial data. Practical experience in GIS applications through lab assignments.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 321 - GIS II: Computer Cartography**

Map layout, design and production using computer techniques. Methods and limitations of graphic communication are emphasized.

**Prerequisites & Notes:** ENVS 320; or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 322 - Analysis of Spatial Data**

Intermediate level statistical techniques commonly used in solving geographic problems.

**Prerequisites & Notes:** ENVS 201.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 326 - Climatology**

Climatic processes, including patterns of climates at various scales; applied climatology; climatic change.

**Prerequisites & Notes:** ENVS 203, PHYS 101 or PHYS 114 recommended.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 327 - The Soil Environment**

A soil science perspective on soils as a natural body. Introduction to the physical and chemical characteristics of soil, the description and classification of soils under the USDA system, and the processes of soil formation.

**Prerequisites & Notes:** ENVS 203 or GEOL 211.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 330 - The United States: Society and Environment**

Topical and regional approaches to selected elements of the physical environment and cultural and economic characteristics of the nation.

**Prerequisites & Notes:** ENVS 204 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 331 - Canada: Society and Environment**

This course explores relationships between people and the environment in the territory that has come to be known as Canada; emphasis is placed upon the history of such relationships. Topics include: physical geography, Aboriginal geographies, Native-Newcomer interactions, evolving and contested political boundaries, resource use and ecological crisis, and urban development. Also offered as C/AM 331.

**Prerequisites & Notes:** ENVS 203 or ENVS 204 or ENVS 240 or HIST 277 or C/AM 200 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### **ENVS 332 - The Pacific Northwest: Society and Environment**

Examination of distribution and character of economic activity, population plus settlement and role of climate, landforms and resources in distributions. Offered alternate years.

**Prerequisites & Notes:** ENVS 203 or ENVS 204 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 333 - East Asia: Society and Environment**

Survey of physical environment, sustainability, peoples, regions and resources of East Asia; problems and prospects. Also offered as EAST 333.

**Prerequisites & Notes:** One from: ENVS 203 or ENVS 204 or ENVS 221 or ENVS 240 or EAST 201 or EAST 202 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

## ENVIRONMENTAL STUDIES

### **ENVS 334 - South Asia: Society and Environment**

Systematic analysis of the physical and human environment of South Asia; emphasis on developmental problems.

**Prerequisites & Notes:** ENVS 204 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **ENVS 335 - The Middle East: Society and Environment**

Environments, economies and societies of Southwest Asia and North Africa; emphasis on current problems.

**Prerequisites & Notes:** ENVS 204 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### **ENVS 340 - Developing World**

Analysis of selected geographical problems of major countries and regions of Africa, Asia and Latin America; population pressure, agricultural productivity; resource appraisal and utilization; urban industrial growth; urban and regional planning.

**Prerequisites & Notes:** ENVS 204.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 341 - Population and Resources**

World distribution of population, patterns of population composition, fertility and mortality. Inter- and Intra- regional migrations; resources and population growth.

**Prerequisites & Notes:** ENVS 204 or SOC 321.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 342 - Geography of the World Economy**

Location analysis of the geography of global economic activities; interrelationships of resources, development, industry, trade, transportation, culture, demographics, and migration.

**Prerequisites & Notes:** ENVS 204 or ECON 206 or HNRS 209 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **ENVS 343 - Urbanization: Processes and Patterns**

Geographic focus upon the development, functions and problems of the modern city with emphasis on American patterns.

**Prerequisites & Notes:** ENVS 204.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 344 - Community Solutions to Climate Change**

In this course we examine the ways that North American communities are adapting to climatic change.

**Prerequisites & Notes:** ENVS 202; ENVS 203; or ENVS 204; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 350 - Energy Policy and Politics**

This course will allow students to understand the history of energy policy within the U.S.; gain an understanding of the major actors in energy policy; and explore the implications for energy policy from local to global levels. A specific focus will be placed on energy issues as they pertain to the Pacific Northwest. Also offered as ENRG 350.

**Prerequisites & Notes:** Huxley or CBE or CST major or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 359 - Greening Business Policy and Practice**

This course will provide both a survey and applications of major U.S. and Washington state policies and practices supporting the greening of business. Also offered as MGMT 359.

**Prerequisites & Notes:** Completion of Huxley ENVS Major Phase I or ESCI Major or CBE Major or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 360 - Plan Graphics: Methods in Urban Planning Design Graphics**

Introduction to the application of graphic design technology to plan design using computer aided design, publication layout, image presentation, and video editing software.

**Prerequisites & Notes:** Declaration of Major in Urban Planning and Sustainable Development.



**Credits:** 2

**Grade Mode:** Letter

### **ENVS 361 - Introduction to Planning**

Principles and practices in urban development and public planning in the United States. Concepts of planning as a community process and professional activity. Evolution of planning ideas in response to changing social, economic, and environmental conditions within the American political framework. Survey of the specialized fields in planning practice, emphasizing the emerging field of environmental planning.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 362 - Theory and Practice of Emergency Management**

This course provides a broad introduction to the historical and theoretical perspectives of emergency management policies and practices. Students will learn how theories are used to inform the practice of disaster and emergency management. Fundamental principles of risk, vulnerability, and emergency planning are examined relative to natural, technologic, and health related hazards, from an interdisciplinary perspective. Federal, state, and municipal legislation and regulations will be examined for their implications on mitigation, preparedness, response and recovery. Students will understand the roles and professional responsibilities of emergency managers in preparing and implementing all-hazards plans and policies.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 368 - Exploring Great Cities**

Field methods course examining great cities. Concepts and themes in human geography and urban planning provide a framework for the analysis of the human environments and the forces and efforts that shape them. Course is repeatable up to 12 credits; course may only be taken once for each destination.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 1-4

**Grade Mode:** Letter

### **ENVS 370 - History of Planning**

Survey of the origins, development and significance of the planning movement in the United States and the profession that emerged

from it. The seminal innovators, practices and achievements in American planning.

**Prerequisites & Notes:** ENVS 361 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 372 - Natural Hazards Planning**

This interdisciplinary course emphasizes creation of safer human settlements through application of hazard mitigation strategies in community planning, site selection and layout, infrastructure design, and building design. The course provides a survey of meteorological and geological hazards and discusses the mandates and responsibilities of various levels of government. It integrates insights from environmental design disciplines for minimizing losses from natural hazards such as global warming, severe storms, wildfires, flooding, earthquakes, and landslides. Students obtain an introductory knowledge of routine planning, design, engineering and public policy tools for reducing losses from natural hazards, and facilitating suitable post-disaster redevelopment. Students gain hands-on experience through projects assessing existing mitigation plans, researching case studies, and working in teams to develop natural hazard mitigation strategies for jurisdictions at risk.

**Prerequisites & Notes:** ENVS 203 or GEOL 211; ENVS 361 or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 373 - Transportation Systems and Planning**

Locational and network analysis and modeling of local, regional and national systems. Also, investigation of alternatives to traditional transportation modes.

**Prerequisites & Notes:** ENVS 361 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 374 - Land Use Regulation & Technical Writing**

This course examines the basic tools used to regulate the development and redevelopment of land. The operation and limits of tools such as zoning, subdivision plats, variances, and growth management will be discussed. Examples, which will be reviewed and critiqued, will be drawn from local and state governments. Participants will write various technical documents and interact with planning professionals responsible for writing and

## ENVIRONMENTAL STUDIES

implementing land use regulations.

**Prerequisites & Notes:** ENVS 361 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 381 - Introduction to Education for Environment and Sustainability**

An introduction to environmental education and an examination of current thinking and practices including connections to sustainability. Focus on history, evolution, and need for environmental education, and on its goals and principles, content, settings, methods and processes approached through reading, reflection, discussion and project work.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ENVS 401 - Cultures of Sustainability**

This is a field course examining the cultural dimension of the sustainability movement. The specific topic will vary, but will include an examination a particular practice of sustainability in relation to the goals of the movement, and its relation to other cultural phenomena. There is a special emphasis on direct student engagement in field work, and on discourse analysis. It is likely the course will require a fee, variable on location of field trips. Course is repeatable up to 4 credits, including original course; course may only be taken once for each destination.

**Prerequisites & Notes:** Instructor Permission Required. Age restrictions may apply to some field trip site visits; exceptions may be granted by instructor.

**Credits:** 1-4

**Grade Mode:** Letter

### **ENVS 404 - Environmental Grant Writing**

An introduction to the essential skills required to

identify potential grant sources and prepare effective environmental grant applications.

**Prerequisites & Notes:** Junior or senior standing or instructor permission.

**Credits:** 1

**Grade Mode:** Letter

### **ENVS 405 - Puget Sound research**

Students attend a conference as participants, learning how the scientific community shares information. Students will prepare by reading scientific journal research articles related to the Puget Sound area. Students will also conduct their own review of scientific literature, with the class culminating with a formal student conference.

**Prerequisites & Notes:** Huxley on the Peninsula major or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 406 - Advanced Readings in Environmental Studies**

This is a variable credit, advanced readings course allowing interested students to earn from 1 to 6 academic credits through their own personal study of environmental topics. The purpose of the course is to foster independent thought and learning in the field of environmental studies placing most of the responsibility for learning on the student. This course is only offered through EESP as a correspondence course.

**Prerequisites & Notes:** Junior Standing; ENVS 202 or instructor permission.

**Credits:** 1-6

**Grade Mode:** Letter

### **ENVS 410 - Agroecology and Sustainable Agriculture**

Ecological concepts and principles applied to design and management of sustainable food production systems. Consideration given to food and farm politics and economics, as well as the experience of place and policies for relocalization. Includes case studies and laboratory/field experience in sustainable agriculture horticulture and strategies for resilience. Offered alternate years.

**Prerequisites & Notes:** Senior status.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 411 - Agroecology Practicum**

Field and project work in agroecology and sustainable agriculture design that integrates ecological principles within sociocultural and

economic frameworks. Consideration of soil and plant ecology, tillage systems and erosion control, resource cycling, and integrated nutrient systems that compromise best management practices. Required field trips. Offered in alternate years.

**Prerequisites & Notes:** ENVS 410 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 412 - Environmental Journalism**

Goal is to equip students to report and write clearly, critically and constructively on environmental and natural resource issues. Emphasis on writing articles for publication involves reading, discussion, and much research and writing.

**Prerequisites & Notes:** JOUR 207; ESCI 101 or ENVS 202.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 413 - The Planet Staff**

Staff writers report, write and revise multiple articles for the quarterly university periodical and its extended online edition, working under the direction of the editor-in-chief and editorial management staff. Staff writers gain practical experience in story querying, reading scientific or policy documents, interviewing specialists and conveying technical information on environmental problems and solutions for a general audience. Class includes some lectures and readings. Repeatable up to 12 credits including original course.

**Prerequisites & Notes:** Open to all Huxley majors, minors, Journalism pre-majors, majors, and minors; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 414 - Editing the Planet**

Publication editing and development; creating and implementing budget and advising on budget decisions; acting as mentor to assigned staff members; preparing reports and presentations for class and instructor; assisting with and taking part in workshops; office management and security; learning personnel communication skills; using advanced publication software and technology; making self-evaluation and production reports for advisor. Repeatable to a maximum of 15 credits. This course may not be taken concurrently with a staff course.

**Prerequisites & Notes:** Open to editors only.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 416 - Field Seminars in Environmental Studies**

Study of various environmental topics and issues of the Pacific Northwest. Course is supported through Extended Education & Summer Programs/Continuing Education North Cascades Institute. Specific topics designed for adult learners. Not available to Huxley College majors. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Not available to Huxley majors.

**Credits:** 1-6

**Grade Mode:** S/U

### **ENVS 417 - Science, Management and Outreach of Contaminated Sites**

Students select an aspect of contaminated site cleanups in Washington State and develop a project under faculty direction that will address specific questions or needs. Projects may include technical components related to the management of site cleanup and/or products aimed at communicating contaminated site cleanup to specific audiences. Projects will be completed in groups with ESCI 454. Students are expected to bring strong environmental journalism, environmental communication or other project-specific skills to their interdisciplinary project groups.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 419 - Applications in GIS**

Applied use of GIS software to existing databases for analysis and final outputs as maps, tables and charts. Mastery of the software will be at the beginner's level, master of GIS techniques will be at the thematic mapping level. Data will be drawn from electronic databases and include tabular, cartographic, and remotely sensed.

**Prerequisites & Notes:** ENVS 320 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 420 - GIS III: Analysis and Modeling**

The use of Geographic Information Systems technology for analysis and modeling of spatial data and processes. Focus on the collection, storage, analysis, and display of spatial data.

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Introduction to the use of models to automate geoprocessing tasks. Practical experience in GIS application through lab assignments.

**Prerequisites & Notes:** ENVS 321 or instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

### ENVS 421 - GIS IV: Advanced GIS Applications

Analysis and visualization of geospatial data using advanced cartographic methods and Geographic Information Systems techniques. Practical experience in GIS applications through lab assignments.

**Prerequisites & Notes:** ENVS 420.  
**Credits:** 4  
**Grade Mode:** Letter

### ENVS 422 - Advanced Spatial Analysis

Advanced techniques for the analysis and visualization of spatial data. Focus on statistical methods and computer tools for identifying spatial patterns and processes, effective communication of results, and professional development for geospatial analysts. Introduction to open source analytical and cartographic software options, including the development of web maps and online professional portfolios. Students will compete an extensive original research project.

**Prerequisites & Notes:** ENVS 421.  
**Credits:** 4  
**Grade Mode:** Letter

### ENVS 423 - GIS Processing and Analysis

Provides students with an introduction to advanced GIS geoprocessing using spatial models and object-oriented scripting. Intended for students familiar with GIS concepts and computer applications; the course is project based. Through lectures, demonstrations, and hands-on exercises, participants will learn different methods for automating spatial data processing tasks including data management, geoprocessing, analytic workflows and data delivery.

**Prerequisites & Notes:** ENVS 419 or ENVS 420 or permission of instructor.  
**Credits:** 3  
**Grade Mode:** Letter

### ENVS 426 - Water Resources

The role of water in the environment; the nature of water use and resulting problems; processes which underlie comprehensive water resource planning

and basin management; data analysis and presentation. Offered alternate years.

**Prerequisites & Notes:** ENVS 326 or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### ENVS 427 - Soil Landscapes

Advanced topics in soils, including the functional relationships between climate, soils and vegetation, soil erosion, landscape patterns of soil, and the application of soils in paleoenvironmental reconstruction. Students will undertake research projects in the field.

**Prerequisites & Notes:** ENVS 327 or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

### ENVS 428 - Biogeography

Study of the spatial distribution patterns of organisms through the integration of the many factors that have interacted to determine these patterns. Offered alternate years.

**Prerequisites & Notes:** ENVS 203; ENVS 326 or ESCI 325 or permission of instructor.  
**Credits:** 3  
**Grade Mode:** Letter

### ENVS 429 - Pyrogeography

We will explore the spatial and temporal relationships of fire and society as an integral landscape process with an emphasis on the maintenance of North American ecosystems and the threat of wildfire to the built environment. We will assess historic and contemporary implications of fire management and policies, and where appropriate we will compare fire processes and practices from abroad. The course will end with interdisciplinary group projects delving into specific fire issues and developing proposals and solutions.

**Prerequisites & Notes:** Huxley senior status or instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

### ENVS 430 - Borderlands: Resource Management

Geographic investigation of cross-border resource management and other issues associated with the growing importance of the United States' cross-border regions, especially our northern border with Canada; selected trans-border environmental, resource management, sustainability, economic,

and urban topics. Also offered as C/AM 430.

**Prerequisites & Notes:** One from: C/AM 200, ENVS 304, ENVS 330, ENVS 331, ENVS 332, ENVS 341, ENVS 342, ENVS 343, ENVS 350, ESCI 330 or Huxley senior status or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 431 - Pacific Rim: Environment, Economy and Sustainability**

Geographic Investigation of the rapidly growing economies, environmental impacts, and issues of sustainability of Pacific Rim nations; special comparative emphasis on East Asia versus North America. Also offered as EAST 431.

**Prerequisites & Notes:** Any one of: ENVS 303 or ENVS 304 or ENVS 330 or ENVS 331 or ENVS 332 or ENVS 333 or ENVS 340 or ENVS 341 or ENVS 342 or EAST 302; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 440 - Public and Stakeholder Engagement in Energy, Climate, and Environmental Policymaking**

We examine different types of civic engagement in public policymaking about energy, climate, and environment through the lens of deliberative democracy. Students will learn to think critically and creatively about how the public, business, and organized interest groups can be effectively involved in policymaking. Also offered as ENRG 440.

**Prerequisites & Notes:** ENVS 304 and ENVS 350; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 441 - Society, Space, and Natural Resources**

This course explores natural resource valuation and management across a variety of political, economic, and cultural spaces in North America; Emphasis is placed on the interaction of social and natural processes in producing management regimes. Also offered as C/AM 441.

**Prerequisites & Notes:** One of the following: C/AM 331, ENVS 308, ENVS 330, ENVS 331, ENVS 341, ENVS 342, ENVS 343, or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 442 - Regional Environmental and Economic Resource Modeling**

Spatial resource assessment and planning models, including quality of life, shift-share, input-output and linear programming under resource constraints, and demographic projections.

**Prerequisites & Notes:** Any one of: ENVS 201; ENVS 361 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 443 - The Urban Environment**

Comparative patterns and processes of urban-economic change in the industrial and non-industrial world. Emphasis on urban environmental development issues and conflicts.

**Prerequisites & Notes:** ENVS 204 and ENVS 343.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 444 - Colonial Landscapes in the Pacific Northwest**

This course provides description and analysis of the impact of European imperialism on the development of Pacific Northwest landscapes; the focus is on Indigenous, British, American, and Canadian geographical actions and territorial claims. Also offered as C/AM 442.

**Prerequisites & Notes:** One of the following: C/AM 331, ENVS 308, ENVS 330, ENVS 331, ENVS 332, HIST 391 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 449 - Energy Systems Transitions**

This course explores the social and technological changes underway to transition from a fossil-fuel based energy system to a low-carbon system. We study the technology involved with existing and evolving electricity, transportation, food, and building energy systems and then interrogate the social, economic, and political structures that substantiate the existing system or promote change to a low carbon future. Also offered as ENRG 449.

**Prerequisites & Notes:** ENVS 304 and ENVS 350; or permission of the instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 450 - Science in the Policy Process**

This course uses theory and case studies to explore the roles of science in environmental policy and regulatory processes, paying particular attention to controversies. Examples will come primarily from the United States government, but

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may draw from international examples for comparative purposes. Topics will include a mixture of current events and historical case studies.

**Prerequisites & Notes:** Any one of: ENVS 201 or ENVS 202 or ENVS 203 or PLSC 250 or ENVS 304 or ENVS 305; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 451 - Natural Resource Policy

Explores history, policy, conflicts, and current events around natural resources, with a particular emphasis on public lands and resource agencies.

**Prerequisites & Notes:** ENVS 304 or ENVS 450 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### ENVS 452 - International Environmental Policy

Examines international environmental issues and national and international ways to address these issues, problems affecting the environmental 'commons' (such as oceans and the atmosphere), and issues relating to sustainable development, including aid and trade.

**Prerequisites & Notes:** ENVS 304 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 454 - Environmental Policy Analysis

This course is an introduction to policy analysis as applied to contemporary environmental issues. Topics

include: competing approaches to evaluating public policy, methods for the assessment of environmental policy alternatives, ethics and policy analysis, and the utilization of policy analysis in decision-making.

**Prerequisites & Notes:** ENVS 201; ENVS 202; ENVS 203; PLSC 250 or ENVS 304 or ENVS 305 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 455 - Environmental Law

In-depth analysis of areas of environmental law that help to illustrate the range and complexity of US approaches to environmental problems. Issues include compensation for harm, enforcement, the best way to ensure compliance, and the underlying assumptions about chemicals in society that inform

the regulatory system.

**Prerequisites & Notes:** ENVS 304 or ENVS 450 or ENVS 456 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 456 - Environmental Governance

How do/should societies bring about change to improve social and environmental conditions? This course treats environmental governance as comprising the structure and activities of the social, political, and economic institutions that define our interactions with the environment. Students will examine several competing approaches to environmental governance, and readings will expose students to both laudatory and critical perspectives of each.

**Prerequisites & Notes:** Any one of: ENVS 202; PLSC 250; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 457 - Environmental Dispute Resolution

Course considers several fact patterns involving disputes over natural resources and environmental issues. Students will study and, in some cases, research the facts and will be assigned roles to represent during dispute resolution sessions. Students have the opportunity to practice a range of dispute resolution techniques which may include negotiation, mediation, and other dispute resolution techniques.

**Prerequisites & Notes:** ENVS 304 or ENVS 455 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 458 - Environmental Politics

Examination of contending perspectives on environmental problems. Focus on how these perspectives are rooted in political philosophy, their roles in the development of environmental movements, and the implications for public policy. Offered alternate years. Also offered as PLSC 420.

**Prerequisites & Notes:** ENVS 202 or ENVS 304; PLSC 101 or PLSC 250.

**Credits:** 5

**Grade Mode:** Letter

### ENVS 459 - Advanced Energy Policy

The goal of this course is to explore policy making and policy implementation in the context of energy technologies. Using case studies we will reveal the multidimensionality and tensions implicit in policy

debates. We will assemble a toolbox that enables us to innovate, assess, and promote policy options. Focus will be placed on policy solutions such as common pool resource management, community-based social marketing, civic dialogue, and analytic-deliberation. Also offered as ENRG 459.

**Prerequisites & Notes:** ENVS 350 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 461 - Land Use Law**

Land use planning is an attempt to reconcile the conflict between individual property rights and collective environmental goals. This course examines the American legal system's role in framing and resolving this dilemma. It provides an understanding of the legal framework that creates our unique 'bottom up' land use regulatory system. It also examines the practical and philosophical implications of federal constitutional restrictions on local government land use authority, including 'takings' and housing discrimination cases.

**Prerequisites & Notes:** ENVS 304 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 462 - Planning Theory**

Survey of the philosophy, methods, critical thinking, and analytical techniques used in public planning. Synthesis of the theories drawn from several disciplines and applied to planning. Emphasis on the application of explanatory concepts in planning decision-making.

**Prerequisites & Notes:** ENVS 370 or ENVS 470 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 463 - Native American Planning and Natural Resources Policy**

Survey of political and jurisdictional considerations, treaty rights, and social and environmental conditions facing tribal communities in their pursuit of self-governance and sustainability. Historic federal Indian policy, court rulings and the consideration of off-reservation treaty rights in regional planning. Approaches to intergovernmental cooperation for sustainable natural resources management. Offered alternate years.

**Prerequisites & Notes:** ENVS 304 or ENVS 361 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 464 - Topics in Planning**

Survey of diverse roles of professional planners in the public and private sector, including multiple levels of government, non-governmental organizations, and specialized private consulting firms; examination of interaction between these professional planning organizations with broader governmental structures; investigation of their involvement with political, social, economic and environmental issues. Includes regular field trips.

**Prerequisites & Notes:** ENVS 361 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 465 - Disaster Risk Reduction**

This course introduces students to the assessment of disasters, focusing primarily on the social aspects of disasters. The course deals with the question 'What causes a disaster?'

**Prerequisites & Notes:** ENVS 362; ENVS 372; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 466 - Greening Business Applications**

This course is an experiential capstone combining faculty and student teams from the College of Business and Economics and Huxley College of the Environment. Student groups prepare a Green Business Assessment for a community or campus organization and compile, distribute, and present a final report to the campus and the client organizations. Also offered as MGMT 466.

**Prerequisites & Notes:** Huxley major or CBE major or instructor permission; priority for majors in Business and Sustainability. Senior status.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 470 - Planning Methods**

Processes in community goal making, analytic techniques and methods of site planning and urban design.

**Prerequisites & Notes:** ENVS 360, ENVS 361 with concurrency.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 471 - Campus Sustainability Planning Studio**

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Introduction to campus sustainability planning as applied to the WWU campus community. Project-based learning and research involving stakeholders across campus. Selected research topics relative to Western's master planning process pursuit of sustainability. A studio course emphasizing the application of sustainability principles in campus planning, development and operations. Repeatable to a maximum of 9 credits.

**Prerequisites & Notes:** ENVS 304, ENVS 361 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### ENVS 472 - Planning Studio

Analysis and synthesis of significant socioeconomic biophysical and cultural resources used in planning; preparation of a land-use or other plan for a selected region.

**Prerequisites & Notes:** ENVS 470.

**Credits:** 6

**Grade Mode:** Letter

### ENVS 473 - Planning Studio II Implement

This is a methods and applications course in land use planning, engaging students in plan implementation. The course will focus on innovative land use regulations, but will also include work with capital improvements and market-based strategies. New land use regulations will be designed to enable and facilitate the implementation of projects from Studio I. Students will examine the costs of direct public investment required to implement their plans, and the possibility of employing incentive-based strategies or public-private partnerships.

**Prerequisites & Notes:** ENVS 472.

**Credits:** 3

**Grade Mode:** Letter

### ENVS 474 - Planning for Sustainable Communities

Synthesis and application of principles, practices and policies in sustainable development and the design of projects, processes, and products using a systems approach to promote social, economic and environmental sustainability. Students apply sustainable design techniques to local regional and international community problems.

**Prerequisites & Notes:** ENVS 361; Admission to Sustainable Design minor or Huxley College; and instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 475 - Community Development and Participatory Methods

This course introduces students to concepts of community development in the context of urban change in the United States. It explores community development goals, organizations, strategies, tools, and planning processes. The theory and practice of urban development, neighborhood change, and community organizing will be discussed, with a particular focus on affordable housing and industrial facility siting. Social, economic, and environmental justice considerations and community empowerment is emphasized in this course.

**Prerequisites & Notes:** ENVS 370.

**Credits:** 3

**Grade Mode:** Letter

### ENVS 476 - Disaster Reduction and Emergency Planning Studio

The course provides students with an opportunity to apply their knowledge and skills in disaster reduction and emergency planning, with an emphasis on community-based approaches. Students will work in groups with a client (or clients) on a quarter-long project of practical significance. Students will be exposed to best practices through case studies across disaster reduction and emergency planning. Project management, client interactions, report writing, and communicating technical information to diverse audiences will be emphasized.

**Prerequisites & Notes:** ENVS 362, ENVS 372, and ENVS 465 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 483 - Environmental Interpretation

An overview of the field of environmental interpretation and how it relates to environmental education. Focus is on gaining an understanding of the basic elements of the interpretive process and on becoming familiar with interpretive approaches and methods. Introduces design and technical components.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 484 - The Literature of Nature and Place

Describes and explores the tradition of writing about the outdoors and human-nature relationship in literature. Students read and discuss writings of Thoreau, Burroughs, Muir, Leopold, Carson, Easley, Lopez, Tempest Williams and others. Students



learn the structure and techniques of nature writing while writing a personal nature essay.

**Prerequisites & Notes:** Junior standing or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 485 - Natural History for Environmental Education**

Classroom and field study of the natural history of the Pacific Northwest as it relates to environmental education. A spring block course.

**Prerequisites & Notes:** ENVS 381 and ENVS 382.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 486 - Field Methods in Environmental Education**

Students visit environmental learning sites and programs where they observe, critique and participate as instructors. Develop skill in designing effective and engaging lesson plans and delivering them to youth audiences. Includes field leadership, environmental interpretation, and instructional evaluation. A spring block course.

**Prerequisites & Notes:** ENVS 381 and ENVS 382.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 487 - Conservation Psychology**

Critical examination of the psychological and educational research bases for environmental education. Introduction to theories and methods used to study environmental behavior change, learning about the environment, formation of social-environmental ethics, and social influences across the lifespan.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 488 - Outdoor Education**

Classroom and field study of outdoor learning methods, emphasizing "using the place" to facilitate learning. Programmatic planning, group facilitation and management techniques, and a holistic conception of the learner are explored through field experience in various outdoor settings. A spring block course.

**Prerequisites & Notes:** ENVS 381 and ENVS 382.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 489 - Leadership for a Sustainable Future**

Theory and practice of leadership for inspiring and maintaining change toward more ecologically sustainable behaviors through informal and formal learning settings. Emphasis on experiential approaches to environmental education from the backyard to the backcountry; field work required. A spring block course.

**Prerequisites & Notes:** ENVS 381 and ENVS 382.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 491 - Environmental Communication**

Critical inquiry into communication theory, research, and practice directed toward environmental concerns in the context of diverse communities. Opportunity to develop skill in techniques such as cultural sensitivity and inclusion, community outreach, environmental interpretation, systemic social change, social marketing, digital and physical media, and/or partnerships. Requires working in an interdisciplinary group to examine environmental problems and communication-based approaches to solutions. Repeatable up to 10 credits including original course.

**Prerequisites & Notes:** Admission into Huxley College and senior status.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 492 - Curriculum for Environment and Sustainability**

Critical review of existing curricula, learning theory and learning objectives are examined and strategies for attaining these objectives are studied and practiced. The qualities of the ideal environmental education curriculum are identified. Students practice curriculum writing and teaching. Students observe in real world classroom and outdoor teaching settings.

**Prerequisites & Notes:** ENVS 381.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 493 - Environmental Impact Assessment**

Environmental Impact Assessment requires a range of professional qualifications and involves a wide spectrum of disciplines and methodologies. This interdisciplinary capstone course involves class preparation of an impact assessment of a local project, summarizing physical, biological and social aspects of a study area. Review of pertinent

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laws and EIS documents. Also offered as ESCI 493.

**Prerequisites & Notes:** Senior standing and Huxley College admission, or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### ENVS 495 - Teaching Practicum

Experience in teaching a lecture or laboratory course in environmental studies. Repeatable to a maximum of 4 credits. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College of the Environment and instructor permission.

**Credits:** 1-3

**Grade Mode:** S/U

### ENVS 496 - Environmental Stewardship

A field-oriented capstone course for environmental studies majors nearing graduation. Students work in interdisciplinary teams to apply their knowledge and skills to solve complex problems in real world situations.

**Prerequisites & Notes:** Senior status and admission into Huxley College; or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### ENVS 498A - Senior Thesis

A special project carried out under the supervision of a faculty adviser and documented in thesis form according to guidelines supplied by the college. May reflect a single study topic or be part of a major investigation which may take the form of field work, or laboratory, library or community research. Repeatable to a maximum of 15 credits.

**Credits:** 1-15

**Grade Mode:** Letter

### ENVS 498B - Internship

Supervised work experience relevant to environmental studies and appropriate to the student's program. The one- to three-month experience is documented by a written report prepared according to guidelines supplied by the college. Repeatable to a maximum of 15 credits. S/U grading.

**Credits:** 1-15

**Grade Mode:** S/U

### ENVS 498C - Senior Project

A special project carried out under supervision of a

faculty adviser and documented in non-thesis form suitable to the project. May take the form of some environmental or community activity having either a physical or programmatic result. Repeatable to a maximum of 15 credits.

**Credits:** 1-15

**Grade Mode:** Letter

### ENVS 498D - International Study

While enrolled as a major in Huxley College, a student who has undertaken a college-level foreign language study may study for one quarter in a country utilizing that language. International study must be approved in advance and carried out under the supervision of the student's adviser, must follow the international study guidelines for the student's major, and relate to the student's course of study at Huxley College. The result of the study must be reported in written, taped, filmed or graphically portrayed form. Repeatable to a maximum of 15 credits. S/U grading.

**Credits:** 1-15

**Grade Mode:** S/U

### ENVS 499A - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic covered.

**Credits:** 1

**Grade Mode:** S/U

### ENVS 499B - Spring Block Planning Seminar

Preparation for Spring Block courses, including understanding the sequence, tasks, partners and expectations for the Spring Block, and forming a functioning group.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 1

**Grade Mode:** S/U

### ENVS 499C - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** S/U

**ENVS 499D - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** S/U

**ENVS 499E - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** S/U

**ENVS 499F - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499G - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499H - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credits with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites vary depending on topics offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499I - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499J - Seminar**

Students-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499K - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499L - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499M - Seminar**

Student-faculty interaction on topics of general interest.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** S/U

**ENVS 499N - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

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**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** Letter

### ENVS 4990 - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** Letter

### ENVS 499P - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** Letter

### ENVS 499Q - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** Letter

### ENVS 499R - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 1

**Grade Mode:** Letter

### ENVS 499S - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** Letter

### ENVS 499T - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** Letter

### ENVS 499U - L.E.A.D. Seminar

Practicum in environmental education. Create and deliver classroom and outdoor environmental education curriculum with local school class.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 2

**Grade Mode:** Letter

### ENVS 499V - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** Letter

### ENVS 499W - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** Letter

### ENVS 499X - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** Letter

### ENVS 499Y - Seminar

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** Letter

**ENVS 499Z - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

**Credits:** 2

**Grade Mode:** Letter

**ENVS 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**ENVS 501 - Research and Projects in Environmental Studies**

Introduction to and survey of current trends in and historical contexts of environmental studies as an area of research and project design. Focuses on discursive, ideological, and practical aspects of research and project-based work in Environmental Studies.

**Credits:** 3

**Grade Mode:** Letter

**ENVS 502 - Environmental Research and Projects Frameworks**

Survey current trends and historical contexts of environment research. Investigate and evaluate the theories and analytical frameworks commonly used in environmental research and projects. Identify and develop such frameworks for future research efforts.

**Prerequisites & Notes:** ENVS 501

**Credits:** 3

**Grade Mode:** Letter

**ENVS 503 - Communicating Research Results**

Theory and practice of communicating research plans and results in written documents and public presentations. Repeatable up to 3 credits including original course.

**Credits:** 1

**Grade Mode:** Letter

**ENVS 520 - GIS III: Analysis and Modeling**

The use of Geographic Information Systems technology for analysis and modeling of spatial data and processes. Focus on the collection, storage, analysis, and display of spatial data. Introduction to the use of models to automate geoprocessing tasks. Practical experience in GIS application through lab assignments and an original research project.

**Prerequisites & Notes:** ENVS 321 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**ENVS 521 - GIS IV: Advanced GIS Applications**

Analysis and visualization of geospatial data using advanced cartographic methods and Geographic Information Systems techniques. Practical experience in GIS applications through lab assignments.

**Prerequisites & Notes:** ENVS 520 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**ENVS 522 - Advanced Spatial Analysis**

Advanced techniques for the analysis and visualization of spatial data. Focus on statistical methods and computer tools for identifying spatial patterns and processes, effective communication of results, and professional development for geospatial analysts. Introduction to open source analytical and cartographic software options, including the development of web maps and online professional portfolios. Students will complete an extensive original research project.

**Prerequisites & Notes:** ENVS 521 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**ENVS 526 - Understanding Soil Data**

A soil science perspective on soil as a natural body. This course will describe the physical and chemical characteristics of soil and how to access existing soil data sets. Soil description and classification of soils will be explored through the USDA system. Theories of soil formation will be surveyed and process of pedogenesis will be examined.

**Prerequisites & Notes:** Graduate status and instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**ENVS 528 - Advanced Topics in Biogeography**

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Study of the spatial distribution patterns of organisms through the integration of the many factors that have interacted to determine these patterns.

**Prerequisites & Notes:** ENVS 203; ENVS 326 or ESCI 325; or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **ENVS 529 - Pyrogeography**

Graduate students will explore the spatial and temporal relationships of fire and society as an integral landscape process with an emphasis on the maintenance of North American ecosystems and the threat of wildfire to the built environment. We will assess historic and contemporary implications of fire management and policies, and where appropriate we will compare fire processes and practices from abroad. The course will end with interdisciplinary group projects delving into specific fire issues and developing proposals and solutions. Graduate students are expected to take a lead role in the development of group projects and development of final products.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 530 - Borderlands: Resource Management**

Geographic investigation of cross-border resource management and other issues associated with the growing importance of the United States' cross-border regions, especially our northern border with Canada; selected trans-border environmental, sustainability, economic, and urban topics.

**Prerequisites & Notes:** ENVS 501 or ESCI 501 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 531 - Pacific Rim: Environment, Economy, and Sustainability**

Geographic Investigation of the economies, environmental impacts, and issues of sustainability of Pacific Rim nations; special comparative emphasis on East Asia versus North America.

**Prerequisites & Notes:** ENVS 501 or ESCI 501 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 540 - Advanced Public and Stakeholder Engagement in Energy, Climate, and Environmental Policymaking**

We examine different types of civic engagement in public policymaking about energy, climate, and environment through the lens of deliberative democracy. Students will learn to think critically and creatively about how the public, business, and organized interest groups can be effectively involved in policymaking.

**Prerequisites & Notes:** ENVS 304 or ENVS 350 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 545 - American Environmental History**

Readings seminar focusing on the literature on the history of the interaction of nature and society in America. Concentration on methods in environmental history. Also offered as HIST 553.

**Prerequisites & Notes:** Graduate status in Department of Environmental Studies or Environmental Sciences or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 546 - World Environmental History**

The organizing theme of this seminar will be that of 'exchange' - biological and cultural - of organisms and ideas about what to do with them. By focusing on the problem of the history of exchanges of organisms and ideas about the environment around the globe, the seminar will at the same time illuminate other themes in world environmental history. Also offered as HIST 554.

**Prerequisites & Notes:** Graduate status in Department of Environmental Studies or Environmental Sciences or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 549 - Energy Systems Transitions**

This course explores the social and technological changes underway to transition from a fossil-fuel based energy system to a low-carbon system. We study the technology involved with existing and evolving electricity, transportation, food, and building energy systems and then interrogate the social, economic, and political structures that substantiate the existing system or promote change to a low carbon future.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 550 - Environmental Politics and Policy**

Survey of the field of environmental politics and policy. Examination of how social scientists have addressed environmental issues by focusing on questions raised, methods used and conclusions reached. Approach will be comparative in examining research on different political and policy dynamics of regional case studies.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 551 - Natural Resource Policy**

The course addresses history, politics, conflicts, and current events (e.g. Malheur NWR) around natural resources, with a particular emphasis on public lands.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 559 - Advanced Energy Policy**

The goal of this course is to explore policy making and policy implementation in the context of energy technologies. Using case studies we will reveal the multidimensionality and tensions implicit in policy debates. We will assemble a toolbox that enables us to innovate, assess, and promote policy options. Focus will be placed on policy solutions such as common pool resource management, community-based social marketing, civic dialogue, and analytic-deliberation.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 580 - Place-based Learning in the North Cascades**

Explores learning and teaching about the natural and cultural history of a place using the Skagit River watershed and North Cascades mountains as the classroom and focus of inquiry. This is an intensive, field-based, experiential learning process which introduces place through the lenses of socio-ecological issues, development of environmental responsibility, and how educators can use place in environmental education curricula.

**Prerequisites & Notes:** Admission to M.Ed. in Environmental Education Residency.

**Credits:** 6

**Grade Mode:** Letter

### **ENVS 581 - Practicum in Teaching Natural and Cultural History**

Supervised field experience in teaching about natural and cultural history in an environmental learning center setting.

**Prerequisites & Notes:** ENVS 580.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 582 - Curriculum in Environmental Education**

Examination of all aspects of curriculum for environmental education, especially in the non-formal setting of environmental learning centers, nature centers and outdoor schools. Curriculum theory and methodology appropriate to these settings will be studied, as will processes of curriculum design. Current programs and materials will be reviewed. Students will practice the skills of preparing curriculum and learning materials.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 583 - Natural History and Science of the North Cascades**

Studies the natural history of the North Cascades to understand the basic ecological, hydrological, and geological principles operating there. Explores diverse processes of scientific inquiry that have been applied to study the landscape. Includes examination of how natural history and scientific inquiry into natural processes may be incorporated into interdisciplinary environmental education programs.

**Prerequisites & Notes:** ENVS 580; ENVS 581; ENVS 582.

**Credits:** 4

**Grade Mode:** Letter

### **ENVS 584 - Leadership and Nonprofit Administration**

Examination of the nature and qualities of nonprofit educational organizations and of models of nonprofit administration. Leadership, management, and partnership principles and strategies will be studied. Topics will include all aspects of running an educational nonprofit organization, including financial management, fundraising, and organizational development and evaluation. Working with public and private sector partners will be explored.

**Prerequisites & Notes:** ENVS 580; ENVS 581; ENVS 582; ENVS 583.

**Credits:** 5

**Grade Mode:** Letter

### **ENVS 585 - Environmental Education Foundations**

Examination of the principles and processes of education about and for the environment. Review

## ENVIRONMENTAL STUDIES

of theory and practice of environmental education in a variety of programmatic settings.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 587 - Conservation Psychology

Critical examination of the psychological and educational research bases for environmental education. Introduction to theories and methods used to study environmental behavior change, learning about the environment, and formation of ecological social-environmental ethics, and social influences across the lifespan.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 588 - Assessment, Evaluation and Research in Environment Education

Covers assessment in the instructional context; evaluation of programming; and evidence-based practice. The main focus is on program evaluation in EE and its value, principles and methods. How can the gathering of useful and accurate information be integrated throughout program life-cycle and organizational culture? A beginner level of competence in designing and conducting simple and useful applied research will be facilitated through case studies and group projects. Study and practice of methods will be balanced with broader discussion of evaluation purposes and guiding questions.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 589 - Professional Writing and Presentation

Capstone course for students completing master's work in environmental education, Residency Track. Reflection on program; writing and presentation of research and curriculum projects during the course of the master's program.

**Prerequisites & Notes:** ENVS 580; ENVS 501; ENVS 581; ENVS 582; ENVS 583; ENVS 584; ENVS 585; ENVS 587.

**Credits:** 5

**Grade Mode:** Letter

### ENVS 590 - Graduate Colloquium

Current trends and issues in geographic and environmental studies research. Repeatable up to 3 credits including original course.

**Credits:** 1

**Grade Mode:** Letter

### ENVS 593 - Environmental Impact Assessment Practicum

Preparation of an objective assessment description of a real natural area including the search for public documentation, evaluation of coverage and specific new analyses. Coordinating role in task group data assembly and editorial review of draft project summaries. Experience directly related to professional responsibilities in the environmental field. Review of assessment utilization in the EIS format and of significant legislation.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

### ENVS 595 - Teaching Practicum

Experience in teaching a lecture or laboratory course in environmental studies. Repeatable. S/U grading

**Prerequisites & Notes:** Graduate status, relevant coursework and permission of instructor.

**Credits:** 1-3

**Grade Mode:** S/U

### ENVS 598 - Research Project

Individualized research experience in the field, not including research related to thesis of field project. Repeatable up to 6 credits including original course.

**Prerequisites & Notes:** Completion of 15 credits 500-level courses toward MA in Environmental Studies or MEd in Environmental Education.

**Credits:** 2-6

**Grade Mode:** Letter

### ENVS 599 - Graduate Environmental Studies Seminar

Selected topics across the spectrum of environmental studies (e/g/. toxicology, watershed studies, applied ecology, geography, environmental education, etc.). Repeatable to a maximum of 6 credits, including original course. S/U grading.

**Credits:** 1-2

**Grade Mode:** S/U

### ENVS 690 - Thesis

Thesis research in environmental studies under faculty direction. Repeatable up to 36 credits, including original course. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy for the Master's degree and appointment



of thesis advisor and thesis committee. Permission of instructor.

**Credits:** 1-12

**Grade Mode:** S/U

### **ENVS 691 - Field Project**

Development of an application of knowledge in practical context. This may take the form of an environmental program in the student's area of graduate work, such as preparation of curriculum or other educational materials; policy analysis or implementation; planning or design portfolio, or other project. Repeatable to a maximum of 12 credits, including original course. S/U grading.

**Prerequisites & Notes:** Completion of 15 credits at the 500-level and approval of the student's committee in a Master's program in the Department of Environmental Studies. Permission of instructor.

**Credits:** 1-12

**Grade Mode:** S/U

## **Geography Courses**

### **EGEO 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **EGEO 501 - History and Philosophy of Geography**

Study of geography as a core discipline; its origins and trends in the understanding of multifaceted environmental problems.

**Credits:** 3

**Grade Mode:** Letter

### **EGEO 502 - Geographic Frameworks for Resource Analysis**

Examination of the geographic theories and analytical frameworks used in the study of the environment.

**Prerequisites & Notes:** EGEO 501

**Credits:** 4

**Grade Mode:** Letter

### **EGEO 503 - Research Problems**

Formulation and development of hypotheses for a thesis, and the development of the necessary methodology; preparation of bibliography and review of literature.

**Prerequisites & Notes:** EGEO 501, EGEO 502

**Credits:** 4

**Grade Mode:** Letter

### **EGEO 504 - Geographic Methods and Techniques**

Advanced methods of gathering and analyzing data and information for the solution of geographic, regional planning, and landscape problems.

**Prerequisites & Notes:** EGEO 305 or equivalent, EGEO 501, EGEO 502

**Credits:** 5

**Grade Mode:** Letter

### **EGEO 533 - Climate and Biophysical Processes**

Investigation into the role and nature of biophysical processes and their significance to the spatial and temporal patterns at various scales. Topics examine the functional relationships between climate, soils, landforms and vegetation.

**Prerequisites & Notes:** Graduate status.

**Credits:** 4

**Grade Mode:** Letter

### **EGEO 535 - Environmental Problems and Regional Development**

Cities and regions as complex systems of interdependent natural and human elements; key problems and approaches to their solution through planning.

**Prerequisites & Notes:** 5 credits graduate-level

**Credits:** 5

**Grade Mode:** Letter

### **EGEO 551 - Research Problems**

Formulation and development of hypotheses for a thesis. Development of the necessary methodology; preparation of bibliography and review of literature.

**Credits:** 4

**Grade Mode:** Letter

### **EGEO 552 - Advanced GIS**

Analysis and application of cartographic techniques and geographic information systems to practical mapping and resource management projects.

## ENVIRONMENTAL STUDIES

**Prerequisites & Notes:** instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **EGEO 590 - Graduate Colloquium**

Current trends and issues in geographic research.

**Credits:** 1

**Grade Mode:** Letter

### **EGEO 690 - Thesis**

Thesis research in geography under faculty direction. Repeatable up to 36 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy for the master's degree and appointment of thesis advisor and thesis committee.

**Credits:** 1-12

**Grade Mode:** S/U

# Woodring College of Education

## Introduction

Dr. Francisco Rios, Dean

## Mission and Vision Statement of the College

**Mission:** The Woodring College of Education mission statement provides context and purpose for our actions.

Woodring College of Education facilitates life-long learning through exemplary teaching to prepare education, health, and human services professionals for democratic citizenship and meaningful careers. As a College that serves the state, nation, and the world, we:

- Construct, transform, and convey knowledge by integrating research, theory and practice;
- Cultivate student growth through extensive community and school engagement in collaboration with exemplary practicing professionals;
- Act with respect for individual differences including taking a strengths-based view;

## Academic Programs Leading to Undergraduate and Graduate Degrees

Elementary Education	BAE, MEd
Secondary Education (For information regarding academic majors and endorsements for elementary and secondary education, see departmental listings)	MIT
Special Education	BAE, MEd
Education Administration (Principal and Superintendent administrator certificate programs offered)	MEd
Human Services	BA
Nursing	BSN
Rehabilitation Counseling	MA
Adult and Higher Education	MEd

## Overview: Departments and Programs

### Department of Elementary Education

Dr. David Carroll, Chair

#### Programs Offered

- Elementary Education/Certification
- Language, Literacy, and Cultural Studies Major

- Develop collaborative partnerships that promote the learning and well-being of individuals, families, and the community; and,
- Evaluate processes and outcomes to ensure continual program improvements

**Vision:** The vision of Woodring College of Education frames our future.

Woodring College of Education fosters community relationships and a culture of learning that advance knowledge, honor diversities, and promote social justice.

## Accreditation and Program Approval

Professional educator preparation programs in the Woodring College of Education are accredited by the National Council of Accreditation of Teacher Education (now the Council for the Accreditation of Educator Preparation), and approved by the Washington State Professional Educator Standards Board. The Rehabilitation Counseling program is accredited by the Council on Rehabilitation in Education. The RN-to-BSN program is approved by the Washington Nursing Care Quality Assurance Commission and accredited by the Commission on Collegiate Nursing Education. All Woodring programs are designed to prepare graduates to be thoughtful, knowledgeable, and effective educators or professionals for a diverse society.

- Early Childhood Education/Non-Certification Option
- Early Childhood Education (P-3)/Certification
- Early Childhood Education (P-3) and Elementary Education/Certification Option
- Bilingual Education Endorsement
- Bilingual Education Minor
- English Language Learner Endorsement
- Reading (P-12) Endorsement

## WOODRING COLLEGE OF EDUCATION

- Teaching English to Speakers of Other Languages
- Teaching English to Speakers of Other Languages Minor
- Literacy - Master's

### Department of Health and Community Studies

Dr. Raine Dozier, Chair

Programs Offered

- Adult and Higher Education
- Human Services
- Nursing: RN-to-BSN
- Rehabilitation Counseling

### Department of Secondary Education

Dr. Kevin Roxas, Chair

Programs Offered

- Secondary Education/Certification — Undergraduate/Post-baccalaureate
- Secondary Education/Certification — Master in Teaching
- Middle Level — Humanities Endorsement
- Education and Social Justice Minor

### Department of Special Education & Education Leadership

Dr. Gail Coulter, Chair

Programs Offered

- Early Childhood Special Education (P-3) and Early Childhood Education (P-3) (Dual Endorsement)/Certification
- Exceptionality and Disability
- Special Education (P-12) and Elementary Education (Dual Endorsement)/ Certification
- Special Education (P-12) with Secondary Education/ Certification
- Special Education (P-12) plus Content Endorsement/Certification
- Special Education - Master's (in moratorium)
- Educational Administration
  - Master's
  - Residency Principal Certification
  - Professional Administrator Certification (in moratorium)
  - Initial Superintendent Certification

### Teacher Education Outreach Programs

Dr. Laurence Antil, Assistant Dean for Outreach Programs

Programs Offered

- Elementary Education/Certification with Special Education (P-12) Major
- Elementary Education/Certification - Post-baccalaureate
- Special Education (P-12) Endorsement for Teachers
- Elementary Education Endorsement for Teachers

### Other College Information

#### Educator Certification Requirements

Teacher certification requirements are outlined in the Elementary Education, Secondary Education, Special Education and Teacher Education Outreach Programs sections of this catalog. Administrator certification requirements are outlined in the Graduate School section of this catalog. See the Certification & Accreditation Office for details: [wce.wvu.edu/cert/certification-accreditation](http://wce.wvu.edu/cert/certification-accreditation).

#### Reasonable Accommodation Policy

It is the policy of Western Washington University to provide reasonable accommodation to the known physical or mental limitations of otherwise qualified individuals except where such accommodation would impose undue hardship on the institution. Students with documented disabilities who are enrolled at the University and seek reasonable accommodation should contact Disability Resources for Students for assistance and advice. Students with disabilities who are covered under this policy include those who, with or without auxiliary aids or removal of barriers, can meet the essential eligibility requirements of the program.

#### Administrative Services

- Dr. Karen McLean Dade, Associate Dean
- Dr. Laurence Antil, Assistant Dean, Outreach Programs
- Peter Johnson, Director, Educator Certification
- Dr. Laura Wellington, Director, Teacher Education Admissions and Field Experience
- Debbie Corsino, Specialist, Diversity Recruitment and Retention
- Lisa Moulds, Specialist, Learning in Communities and Schools (LinCs)

## **Resource Centers**

- Center for Education, Equity, and Diversity
- Ershig Assistive Technology Resource Center
- Educational Institute for Democratic Renewal
- Northwest Center for Holocaust, Genocide and Ethnocide Education
- Pacific Northwest Children's Literature Clearinghouse
- Technology Education Center

## **Graduate Programs in Education**

The Woodring College of Education offers various master's degrees. For a complete description of these programs, see the Graduate School section of this catalog.

## **EDUC courses**

Education (EDUC) courses are offered through the Woodring College of Education as classes for the preparation of teachers, and for the advanced professional development of educators as continuing education or as requirements for the MEd degree. Go to information on EDUC courses.

# Education

Education (EDUC) courses are offered through the Woodring College of Education as classes for students exploring careers in education, the preparation of teachers, and for the advanced professional development of educators as continuing education or as requirements for the MEd degree.

## Education Courses

### **EDUC 101 - Rethinking Schools in Communities**

Explores the influence of personal identity and relationships of well-being in school, family, and community systems. This course includes readings, guided explorations and activities in schools and communities for understanding child and youth development and learning.

**Credits:** 5

**Grade Mode:** Letter

### **EDUC 108 - Purposeful Learning**

Seminar course designed for enhancing student understanding and application of the meta-cognitive process of lifelong learning.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

### **EDUC 109 - Scholarship of Teaching and Learning**

Survey of concepts foundational to effective teaching and learning from history, sociology, psychology, political science, communication arts and law. Explores the interdependent and synergistic relationship between various academic disciplines and the scholarship of teaching and learning.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **EDUC 110 - Future Scholars Seminar**

This course uses readings, videos, guest presentations, field observations and extra-curricular activities to more fully familiarize first quarter freshmen designated as Future Woodring Scholars with academic and student support programs, and to explore career opportunities in the fields of teaching and human services.

**Prerequisites & Notes:** Appointment by Dean of WCE as a Future Woodring Scholar.

**Credits:** 2

**Grade Mode:** Letter

### **EDUC 111 - Critical Multicultural Analysis of Children's Literature**

This course has been designed to develop a critical understanding of current issues of educational equity within the U.S. context through children's literature. Through research-based discussions, participation in workshops and lectures students will engage and grapple with their own development of critical consciousness and critically analyze children's literature. S/U grading.

**Prerequisites & Notes:** Students must be enrolled in College Quest.

**Credits:** 1

**Grade Mode:** S/U

### **EDUC 115 - Introduction to Contemporary Education Issues**

Introduction to contemporary social, political, and policy issues in education and related fields. Exploration of education-related careers and career pathways. Independent field study or service-learning fieldwork required.

**Prerequisites & Notes:** Acceptance as a Woodring Future Scholar or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **EDUC 204 - Systems for School and Community Renewal**

Engage in critical inquiry of interprofessional systems influencing school and community innovation and renewal with a focus on social justice for well-being.

**Prerequisites & Notes:** EDUC 101 or permission of the instructor.

**Credits:** 5

**Grade Mode:** Letter

### **EDUC 205 - Disability, Diversity, and the Mass Media**

Introduction to the experience and perspective of those with disabilities in the context of diversity and how that experience is understood by the general public. Students will learn about disabilities from an historical view and how the media both reflects and influences the narrative. Media throughout the past century will be used to examine critical issues.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

### **EDUC 280 - Climate Change, Social Justice, & Public Education**

Through research, examination of current available materials, and guest presentations, students in this course will be involved in a three-prong study including: 1) the projected societal impacts of climate change, 2) vulnerable populations and, 3) the response of public education in the United States.

**Prerequisites & Notes:** Sophomore standing or instructor permission.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **EDUC 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **EDUC 309 - Storytelling: Oral Narrative in History, Culture, and Society**

Current trends and interdisciplinary applications of storytelling. Selection, adaptation and presentation of stories for various settings and audiences, with focus on the history of oral narrative traditions, cultural perspectives, and societal impact.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### **EDUC 320 - Reader's Theatre in the Classroom**

Adaptation of fiction and nonfiction into script form for K-12 classroom. Emphasis on teaching creative writing, literature appreciation, teamwork and oral skills development.

**Prerequisites & Notes:** LIBR 405 or ENG 441 recommended  
**Credits:** 4  
**Grade Mode:** Letter

### **EDUC 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **EDUC 405 - Children's Literature: Appreciation and Presentation of Literature for Children and Adolescents**

The course emphasizes the reading of various genres, book selection, dramatic presentation and innovative uses of literature. The primary focus is on enhancing appreciation for literature in a way that promotes: diverse learning, lifelong reading, using oral interpretation, reader's theater and storytelling techniques. Repeatable up to a maximum of 8 credits.

**Credits:** 4  
**Grade Mode:** Letter

### **EDUC 407 - Introduction to Education for Sustainability**

Strategies for using education as a tool to address contemporary challenges that involve the interconnectedness of social justice, ecological, economic and systems. Theoretical and practical foundations; historical roots; current and emerging trends in education for sustainability. Emphasis on agency, activism, learner-centered pedagogies, and professional teaching practices applicable in formal and non-formal educational contexts.

**Prerequisites & Notes:** Declaration of Education and Social Justice Minor; or declaration of Sustainability Minor; or instructor permission.

**Credits:** 4  
**Grade Mode:** Letter

### **EDUC 409 - Advanced Storytelling**

Training in public storytelling performance in community and educational settings. Emphasizes personal performance development, practical public experience, storytelling teaching methods, and advanced study of the history and current trends in the growing field of storytelling.

**Prerequisites & Notes:** EDUC 309 or permission of instructor.  
**Credits:** 3  
**Grade Mode:** Letter

### **EDUC 411 - Education and Social Justice**

## EDUCATION

Theoretical and practical foundation of education for social justice, exploring historical roots and the contemporary constructions of social justice issues and traditions as they play out in diverse educational contexts with emphasis on disruption of cultural reproduction of oppression through agency and activism.

**Prerequisites & Notes:** AMST 301 or FAIR 366E; and declaration of Education and Social Justice minor or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### EDUC 412 - Seminar in Educational Equity

This course has been designed to develop a critical understanding of current issues of educational equity and social justice within the U.S. context. Through research based discussions and participation in symposia, workshops, seminars, and film viewings students will engage and grapple with their own development of critical consciousness and the implications for educators. Also offered as AMST 412.

**Prerequisites & Notes:** Junior standing or permission of instructor. Preference to students in the Education and Social Justice Minor.

**Credits:** 4

**Grade Mode:** Letter

### EDUC 413 - Bridge Barriers w/Migrants

Course explores the barriers migrant students face in graduating from high school and going on to higher education. Course combines theoretical study with a service learning experience focused on supporting migrant youth to overcome the educational challenges they face. All students will take leadership roles in planning, implementing, and evaluating the effectiveness of the Migrant Youth Leadership Conference and outreach efforts with Migrant partner programs. Repeatable up to 8 credits, including original course. Also offered as AMST 413.

**Prerequisites & Notes:** Declaration of Education and Social Justice Minor or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### EDUC 414 - Topics in Social Justice Education

Specific issues in social justice education will be used as lenses for analyzing, evaluating and transforming interlocking systems of power, privilege, oppression and discriminatory institutional structures and cultural practices and social behavior. Also offered as FAIR 414D.

**Prerequisites & Notes:** AMST 301; EDUC 411; and FAIR 375I

**Credits:** 4

**Grade Mode:** Letter

### EDUC 501 - Introduction to Educational Research

Introduction to the concepts and procedures of contemporary education research. Locating and interpreting research literature; formulating research problems and hypotheses. Selecting research designs, including quantitative and qualitative approaches. Use of correlational, causal comparative, quasi-experimental, experimental, single subject, descriptive, case study, and various qualitative methodologies.

**Prerequisites & Notes:** Graduate status or permission of instructor; must take within first 12-16 credit hours under advisement.

**Credits:** 4

**Grade Mode:** Letter

### EDUC 505 - Creating Classrooms for Learning

Advanced studies in culturally responsive curriculum, instruction and assessment.

**Prerequisites & Notes:** EDUC 501.

**Credits:** 4

**Grade Mode:** Letter

### EDUC 534 - Assessing Educational Quality

Developing criteria and designing procedures for measuring input process and product resulting from special or innovative programs, community factors, options in administrative and instructional organization; for coordinators and research workers in the public schools.

**Prerequisites & Notes:** EDUC 501 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### EDUC 690 - Thesis

Research study under the direction of a faculty committee. Repeatable to a maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy and approval of the student's committee.

**Credits:** 1-5

**Grade Mode:** S/U

### EDUC 691 - Research Seminar and Inquiry Project



Research study under the direction of a faculty committee. Repeatable to a maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy and approval of the student's graduate committee.

**Credits:** 1-5

**Grade Mode:** S/U

# Elementary Education

## Introduction

The Department of Elementary Education offers professional education programs that lead to recommendation to the Office of the Superintendent of Public Instruction for residency teacher certification in the state of Washington. Students are encouraged to visit the departmental offices in Miller Hall 301 for information on program offerings that meet their individual needs.

The programs in elementary education are designed to prepare thoughtful, knowledgeable, and effective educators for a diverse society. Consistent with national and state standards for what teachers should know and be able to do, the elementary education curriculum offers carefully sequenced professional programs that are firmly backed by current research on effective teaching and learning.

## Information

Individuals interested in teacher education can obtain information from the Website at [wce.wvu.edu/admission](http://wce.wvu.edu/admission). Inquiries should be directed to Woodring College Teacher Education Admissions, Student Services, Miller Hall 150, phone 360-650-3313, e-mail address [TeacherEd.Admission@wwu.edu](mailto:TeacherEd.Admission@wwu.edu). Written inquiries may be addressed to Teacher Education Admissions, Western Washington University, MS-9090, 516 High St., Bellingham, WA 98225-9090.

Information about elementary education programs may be obtained by visiting the department Website at [wce.wvu.edu/eled/elementary-education](http://wce.wvu.edu/eled/elementary-education). Applicants who wish to speak with a faculty advisor may request an appointment through the elementary education department office in Miller Hall 300, phone 360-650-3336.

Those persons interested in graduate programs should consult the Graduate School section of this catalog or contact one of the Graduate Advisors for the Masters in Education: Literacy and Language, Dr. Tracy Coskie [tracy.coskie@wwu.edu](mailto:tracy.coskie@wwu.edu) or Dr. Marsha Riddle Buly [marsha.riddle.buly@wwu.edu](mailto:marsha.riddle.buly@wwu.edu). The Graduate School can also be contacted directly for more general questions, phone 360-650-3170, e-mail [gradschool@wwu.edu](mailto:gradschool@wwu.edu). Written inquiries may be addressed to the Graduate School, Old Main 530, MS-9037, Western Washington University, 516 High St., Bellingham, WA 98225-9037.

## Faculty

**DAVID CARROLL** (2001) Chair and Professor. BA, Antioch College; MA, Leslie College; PhD, Michigan State University.

**JOANNE CARNEY** (2003) Professor. BA, MA, Gannon University; PhD, University of Washington.

**MARILYN CHU** (2008) Associate Professor. BA, University of Michigan- Ann Arbor; MA, Western Washington University; EdD, Nova Southeastern University, Florida.

**TRACY COSKIE** (2003) Professor. BA, University of Rochester; MEd, PhD, University of Washington.

**PAULA DAGNON** (2007) Associate Professor. BA, Whitman College; MA, University of Connecticut, Storrs; PhD, University of Connecticut, Storrs.

**MARIA TIMMONS FLORES** (2008) Associate Professor. MEd, Western Washington University; PhD, University of Colorado Boulder.

**KRISTEN FRENCH** (2007) Associate Professor, BA, Western Washington University; MA, University of Massachusetts-Amherst; EdD, University of Massachusetts-Amherst.

**JENNIFER GREEN** (2012) Assistant Professor, BA, Gustavus Adolphus College; MAT, School for International Training; PhD, University of Connecticut.

**EILEEN HUGHES** (2005) Professor. BS, Whittier College; MS, University of Wisconsin, Madison; PhD, University of Oregon.

**MITCHELL JANCIC** (2006) Senior Instructor. MA, California State University; PhD, University of California-Santa Barbara.

**ANNA LEES** (2015) Assistant Professor. BA, Spring Arbor University; MA, Marygrove College; EdD, Loyola University Chicago.

**DIANE MAJORS** (1994) Senior Instructor. MA, University of Oregon.

**MATTHEW MILLER** (2005) Associate Professor. BA, St. Olaf College; MA, University of Arizona; MEd, University of Minnesota; PhD, University of Washington.

**CHRIS OHANA** (1999) Professor. BA, University of California-Berkeley; MA, University of Oregon; PhD, Iowa State University.

**MARSHA RIDDLE BULY** (1999) Professor. BA, Western Washington University; MA, California State University; PhD, University of Washington.

**PATRICIA SKILLMAN** (1988) Senior Instructor. Director TESOL Program. BA, Stanford University; MEd, Western Washington University.

**KATHRYN WAYNE** (1992) Associate Professor. BA, University of Oregon; PhD, University of Oregon, Stanford.

**JOY WIGGINS** (2011) Senior Instructor. BA, Texas Tech University; MEd, Western Washington University; PhD, Ohio State University, Columbus., Ohio

## Elementary Education Programs

The Department of Elementary Education offers the following programs, majors, endorsements, and minors:

- Elementary Education (Undergraduate and Post-Baccalaureate) – This program leads to a recommendation to the state of Washington for a teaching certificate with an Elementary Education endorsement. Requirements include completion of the Elementary Education Professional Program, a major in an approved area, and a one-year internship experience that includes one quarter of full-time teaching.
- Language, Literacy, and Cultural Studies Major – This departmental major is one of 15 approved academic majors that students may choose from to accompany the Elementary Education Professional Program. The Bachelor of Arts in Education: Language, Literacy, and Cultural Studies Major responds to the growing diversity in the state's schools and supports the Woodring College of Education's efforts to embrace diversity and promote social justice. The major focuses on research-based and experience-validated knowledge to help elementary school teachers reach all students. The LLC major includes preparation toward a Reading Endorsement and an ELL and/or Bilingual Endorsement program in addition to the K-8 endorsement.
- Reading Endorsement – This program leads to an additional endorsement in Reading K-12 when accompanied by a first endorsement in another content area. The Reading Endorsement is offered for students who wish to have the opportunity to further their knowledge and skills for literacy instruction. Students will deepen their knowledge of effective, evidence-based language and literacy assessment, instruction, and programming while building their capacity to support all students to move forward as readers, writers, and language users. A passing score on the NES Reading and demonstration of the state competencies for reading are required.
- Bilingual Education Endorsement – This program leads to an additional endorsement in Bilingual Education when accompanied by a first endorsement in another content area. Also required is a cultural studies course taught in the language of that culture or demonstration of equivalent experience. Expected proficiency is equivalent to a major in the language other than English, and oral and written proficiency at the American Council on the Teaching of Foreign Languages (ACTFL) mid-advanced level. Each required course must be completed with a grade of B- (2.7) or better. A passing score on the Bilingual Education WEST-E and the ACTFL tests are required by the state.
- English Language Learner Endorsement - This program leads to an additional endorsement in English Language Learners based on Washington state English Language Learners endorsement competencies, when accompanied by a first endorsement in another content area. Students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study. A passing score on the ELL WEST-E is required by the state.
- Early Childhood Education (Undergraduate) — The Early Childhood Education Program offers three options to students. All options are for candidates seeking a profession in early childhood education and specialization in working with young children and their families. The Non-certification option is designed for individuals who want to work in positions specific to the birth to eight years age-range in childcare, HeadStart or with school-age children in after-school programs. The P-3 option is designed for students wanting to specialize in early childhood education (birth through third grade) and seek a teaching endorsement to work in the public schools. The Dual Endorsement option is for candidates who seek two teaching endorsements to work in the public schools (P-3rd and Elementary Grades).
- Bilingual Education Minor – Undergraduates may complete a 32-credit minor in Bilingual Education. To declare the Bilingual Education minor, students must complete a cultural studies course taught in the language of that culture, or demonstrate the equivalent in experience. The bilingual endorsement can be earned in conjunction with the bilingual minor. Students must complete the minor with a minimum GPA of 2.7 in minor course work. Either the Bilingual Education Minor or the TESOL Minor with a focus on P-12 learners may be declared, but not both.
- Teaching English to Speakers of Other Languages Minor – The TESOL minor is available to undergraduate students in the TESOL certificate program with a focus on adult learners. Students earning an ELL

## ELEMENTARY EDUCATION

endorsement may choose to complete either 27-credit TESOL minor with a focus on P-12 learners or the 33-credit Bilingual Education minor, but not both. To declare the TESOL minor, students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study.

- Teaching English to Speakers of Other Languages Certificate – The TESOL Program focuses on preparing participants to work with English language learners to develop their English language skills. Works is most often in international language schools, community language school settings for new or recent immigrants, and community college ESL classes. Completion of the 27-credit sequence of courses results in a TESOL Certificate.

The Department of Special Education and Education Leadership offers the following integrated dual endorsement program:

- Special Education and Elementary Education — This program leads to a recommendation to the state of Washington for a teaching certificate endorsed in Special Education and Elementary Education. Requirements include completion of the professional studies core, major in special education, and elementary program curriculum and methods, and two internships, each one quarter in length. See the Special Education section of this catalog for further information.

Per ESSA, districts are no longer required to identify and document Highly Qualified Teachers. Moving forward, the state of Washington will continue to monitor teacher qualifications and collect data about certification, endorsements, teaching assignments, and years of experience. Districts may still maintain previous requirements that impact eligibility for certain middle school teaching assignments in a core academic subject(s). Candidates are responsible for consulting with an advisor for further information on what endorsement will best fit their teaching career goals.

### Certification

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with state learning goals and essential academic

learning requirements, and require candidates to demonstrate that they have made a positive impact on student learning. First-level residency certification programs are designed around the standards of effective teaching, professional development, and teaching as a profession.

### State requirements for teacher certification at the time of completion of a student's program will supersede those outlined in this catalog.

These changes may affect the time it takes for a student to complete the teacher education program.

### Residency Teacher Certification

The first-level Residency certificate is awarded to new teachers upon the completion of these generally stated requirements:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- External assessments of content knowledge and teacher performance as required by Washington State

Candidates for Residency certification must pass a content knowledge assessment: the Washington Educator Skills Test - Endorsements (WEST-E) or National Evaluation Series (NES) test, and if applicable, ACTFL proficiency tests, to qualify for an endorsement. WWU requires submission of a passing content test score for each endorsement to be earned, before commencement of the full-time student teaching internship. For current information on test requirements, registration, fees, and test dates and locations, refer to Content Test Resource Website, [wce.wwwu.edu/cert/content-test-resource-site](http://wce.wwwu.edu/cert/content-test-resource-site). Candidates for Residency certification must also pass the Teacher Performance Assessment (edTPA), which is completed during the student teaching internship. Application for the Residency certificate is made to Woodring College Certification Office, Student Services, Miller Hall 150, phone 360-650-4930, no later than three months prior to the start of the full-time internship.

The first-issue Residency certificate has no defined expiration date. It is valid until the teacher completes at least 1.5 years of successful teaching experience accumulated over a minimum of two years in a state-approved public, private or state-operated education program. A three-year residency certificate is then issued by the state.

The timeline for earning a second level professional certificate begins with the re-issued residency certificate.

### **Professional Teacher Certification**

The second-level Professional certificate is awarded to experienced teachers who hold a valid Residency certificate, and who pass the Washington ProTeach Portfolio assessment or earn National Board Certification. Professional certification requirements are designed around the standards of effective teaching, professional development, and professional contributions. For further information, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### **Endorsements**

An endorsement identifies the subject matter in which a teacher is prepared and authorized by the State to teach. One qualifying endorsement is required for residency certification. Courses required for a teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better. Elementary education students complete an approved major and the professional program designed specifically for elementary education candidates to earn a Residency certificate endorsed in Elementary Education. Approved academic majors are listed below under Choosing an Academic Major. Early childhood education students complete the professional program and the Early Childhood Education (P-3) Major or the Early Childhood Education (P-3) and Elementary Education major to earn a Residency certificate endorsed in Early Childhood Education (P-3). Students may earn an additional endorsement in Bilingual Education, English Language Learner, or Reading through the Department of Elementary Education or other endorsement through an academic department.

For information on other additional endorsement programs offered throughout the University, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### **Choosing an Academic Major**

Students who wish to earn a teacher certificate endorsed in Early Childhood Education must also complete the early childhood education major or the early childhood education with elementary education major.

Students who wish to earn a teacher certificate endorsed in Elementary Education must also complete an approved academic major. The

following majors are currently approved for elementary education; additional majors are possible under advisement: anthropology; art; communication; environmental studies; foreign language (French, German, and Spanish); general science; general science-middle level; geography; geology (earth science); history; language, literacy, and cultural studies; mathematics; psychology (human development); sociology. While information on each of these majors is available throughout this catalog, it is important to seek advisement from faculty in the appropriate department before beginning work on an academic major. Other majors may be considered with department approval.

### **Professional Program Requirements**

#### **Program Length**

While it is possible to earn a bachelor's degree and initial teaching certificate with certain majors in four academic years, most students require slightly longer. Following acceptance by the Woodring College of Education, which requires at least sophomore status, the student should expect to take seven to eight quarters to complete the teacher certification program. During these remaining quarters, the student has time to work on the academic major and General University Requirements (GURs). Students who enter the Woodring College of Education as Juniors (e.g., many transfer students) should have satisfied nearly all of the GURs and should have a good start on their academic major.

#### **Declaration Process**

All applicants to the Woodring College of Education undergraduate and post-baccalaureate teacher education programs must be formally admitted to and currently enrolled at Western Washington University or must apply to Western for the same quarter they apply to teacher education. Woodring College teacher education program application materials are available in Miller Hall 150 and are also printable from [wce.wvu.edu/admission](http://wce.wvu.edu/admission).

The requirements listed below are minimum application criteria. Enrollment restrictions apply to teacher education programs. Meeting the following requirements makes the applicant eligible for admission consideration but does not guarantee admission. Students who meet all criteria are further evaluated to determine the most qualified applicants. Students will be evaluated on all information provided with the application, including required copies of transcripts from all prior colleges.

# ELEMENTARY EDUCATION

## Application criteria:

- Completion of at least 45 quarter credits of college-level course work
- Cumulative grade point average of 2.75 or higher overall college-level work or over the last 45 credits
- Meet the West-B basic skills requirement. This may be met by: a) passing the West-B exam, b) SAT minimum scores, or c) ACT minimum scores. See the Woodring Admissions website: [wce.wvu.edu/admissions/west-b-requirement](http://wce.wvu.edu/admissions/west-b-requirement) and the West-B website for details: [www.west.nesinc.com](http://www.west.nesinc.com)
- Completion of an English composition course with a grade of B- (2.7) or higher
- Experiences with children, strong interpersonal communication skills, and other skills helpful in teaching are given special emphasis.

## Program Continuation

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

## Requirements upon Program Admission

- Completion of a Pre-Residency Clearance through the Office of Superintendent of Public Instruction (OSPI) E-Certification system, and a fingerprint background check as described below under Character and Fitness.
- Woodring College of Education Professional Orientation
- Woodring College of Education Prevention of Sexual Harassment Training
- Woodring College of Education Blood-Borne Pathogens Training

## Character and Fitness

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Students provide evidence of character and fitness through two separate but related processes:

- A Pre-Residency Clearance through OSPI Instructions for completion of this application will be provided upon acceptance into the program. The application requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with "yes" responses must be

cleared by OSPI before participating in any courses that include field experiences.

- Washington State Patrol and FBI background checks are completed through a fingerprinting process. Teacher candidates admitted to an Early Childhood Education endorsement program complete a background check through the DEL, and submit the results to OSPI. Procedures and fee information are provided to students upon acceptance into the program

No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the DEL, Washington State Patrol, or in some cases, investigated and then cleared by the OSPI. Clearances are valid for two years. Students must maintain character and fitness clearance until they have been recommended for a Residency teacher certificate following completion of the teacher education program.

In addition to the Washington State character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct Requirements and Agreement, which is submitted with program application materials.

## General Retention Requirements

- Students must maintain at least a 2.75 GPA, beginning with the quarter they are notified of admission to Elementary Education. This requirement applies even to quarters where no education courses are being taken. Students who fail to meet this standard will be asked to meet with the department chair for advising and this may result in being dropped from the program. Grade point average for the academic major or minor may differ among academic departments.
- Students must earn a grade of C (2.0) or better in both the professional education sequence and in all courses required for the endorsement.
- Students must understand and demonstrate a high level of competence in the English language. Those who have difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship.
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return.

## Other Departmental Information

### Program Completion

To qualify for program completion and recommendation for state of Washington Residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university.
- Successful completion (grade of C or better) of all Woodring coursework and trainings, including preparation in an endorsable subject area and teaching methodologies.
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodologies, and an internship.
- Evidence of good moral character and personal fitness.
- Passing scores as set by the State of Washington on the content knowledge test(s) for each endorsement.
- Passing scores as set by the State of Washington on the Teacher Performance Assessment (edTPA).
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES).

### Internship

An important experience for teacher certification candidates is the student teaching internship. Students spend two quarters taking final classes in the program along with time in their assigned classroom preparing for quarter three when they are teaching full-time under the direct supervision of a certificated teacher in a school setting. This internship involves intensive practice in integrating methods, content area knowledge, and classroom organizational strategies.

Students will be able to work part time during two quarters of the three quarter internship. However, one quarter of the internship involves full-time teaching responsibilities. It is our advice that candidates NOT work during the full-time internship so they may gain maximum benefit from the experience and perform at his or her highest ability.

Because the internship should be completed in a single classroom for all three quarters, it is likely that internship placement will be in a school site

within Whatcom and Skagit counties. Exceptions to this rule will be made for students approved by the department to enroll in the Global Student Teaching Program.

The Office of Field Experiences (OFE) is the support office of the Woodring College of Education that oversees student teaching placements and supervision. Students must apply for their student teaching internship according to the timeline and directions posted on the OFE webpage at [wce.wvu.edu/ofe/apply-student-teach](http://wce.wvu.edu/ofe/apply-student-teach).

Before commencement of the fulltime portion of the internship, passing scores on state required content exam(s) for each endorsement must be submitted, all pre-internship endorsement and program course work completed, and fingerprint/character and fitness clearance must be valid. Students who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements. Placement in a school is contingent upon:

- Fulfillment of all program requirements (satisfactory academic work, education and endorsement program course work and training, practica, and faculty recommendations)
- Submission of passing scores on the content knowledge test(s) for each endorsement
- Availability of placements and supervision in specific subjects and grade levels
- Acceptance by P-12 school personnel
- Fingerprint/character and fitness clearance through the point of certification

Students are required to interview with the public school teacher to whom they will be assigned, for final approval of placement. OFE will make every effort to arrange up to three initial interviews but does not guarantee an interview.

Any subsequent placement after a voluntary or non-voluntary withdrawal from an internship will be granted only by faculty recommendation following a case conference.

For further information, contact the Woodring College Office of Field Experiences, Student Services, phone 360-650-3310, Miller Hall 150.

### Instructional Technology

The Instructional Technology program offers instruction and research opportunities in the use of instructional technology in education and training, including effective use of emerging and mobile technologies. The program's offerings are designed

## ELEMENTARY EDUCATION

for those who wish to improve or develop their abilities to select, use, adapt, and create learning materials incorporating technology. This program provides teachers and trainers with background necessary to integrate instructional technology into their lessons.

For further information, contact the program office in Miller Hall 301D, phone 360-650-7948.

### **Teaching English to Speakers of Other Languages Certificate Program**

The TESOL Certificate Program focuses on preparing participants to work with English language learners who are interested in developing their skills in English. Work is most often in international language schools, community language school settings for new or recent immigrants, and community college ESL classes. Students earning the TESOL certificate must demonstrate competencies for teaching adults in language programs.

Completion of the 27 credit sequence of courses results in a TESOL Certificate awarded by Western Washington University. This certificate can be used both domestically and internationally as evidence of in-depth training in Teaching English to Speakers of Other Languages (TESOL).

Developing effective skills to work cross-linguistically and cross-culturally is a central objective of the program course work. Coursework includes several service-learning components with English language learners in the community, necessitating the completion of a background check prior to commencing the program. Non-native speakers of English are required to have a TOEFL score of 550 or higher prior to beginning the program. Completion of the certificate and the minor requires cross-cultural study and study of a foreign language. The cross-cultural and foreign language requirements may be satisfied through

previous course work or experience, or concurrently with the program, at the discretion of the program director.

Completion of the certificate and the minor requires cross-cultural study (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study.

The program course work is offered in two formats: online and face-to-face. Many students choose to take late afternoon courses during fall, winter and spring quarters or combine these with the intensive summer option. Others choose to take the certificate courses online. Still others combine courses from face-to-face and online options. Students fully admitted to Western may integrate a concentration in TESOL into the course work of several majors, such as linguistics and American cultural studies, recognizing that the TESOL certificate is offered through Extended Education and requires a different type of registration.

All applicants should contact the Elementary Education office for advising on the admissions process, which will include an application to the TESOL program, and formal admission to the University. TESOL information is available by phone at 360-650-3336, or visit the website at [wce.wvu.edu/tesol/teaching-english-speakers-other-languages](http://wce.wvu.edu/tesol/teaching-english-speakers-other-languages).

### **Graduate Study**

The Department of Elementary Education offers a Master of Education in Literacy designed for educators who want to deepen their knowledge and practice in literacy instruction. Contact the graduate advisors for more information, Dr. Tracy Coskie, [tracie.coskie@wwu.edu](mailto:tracie.coskie@wwu.edu), or Dr. Marsha Riddle Buly, [marsha.riddle.buly@wwu.edu](mailto:marsha.riddle.buly@wwu.edu).

## **Bachelor of Arts in Education**

### **Early Childhood Education P-3 Option, BAE**

Department of Elementary Education, Woodring College of Education

**123 credits (major and professional program)**

#### **Introduction**

The program in early childhood education consists of an academic major in Early Childhood Education and a sequence of professional certification courses that lead to teacher licensure Pre-K through third grade. Upon completion of the program, candidates can work in childcare centers, preschools, Head Start programs, and



primary grades in public schools. The course work offers a combination of theory, methods, and field experiences in a variety of early childhood education.

Students seeking a bachelor's degree with teacher certification and an endorsement in early childhood education (P-3) must complete the General University Requirements, the Early Childhood Education (P-3) Major, and the professional education coursework.

**Why Consider an Early Childhood Education P-3 Option Major?**

The Early Childhood Education (P-3) major has several unique program features:

- Students attend classes with other early childhood education students as a cohort group throughout the program.
- Students gain experience in teaching children in three age groups (infant/toddlers, pre-primary and primary) and in a variety of settings.
- Students are taught to understand and respect intercultural/familial diversity as they learn to develop partnerships with families.
- Students learn to use inquiry tools and process for developing meaningful and integrated learning experiences for young children.

Contact Information		
<b>Department Chair</b> David Carroll Miller Hall 301E 360-650-2251 David.Carroll@wwu.edu	<b>Program Director</b> Eileen Hughes Miller Hall 303A 360-650-3416 Eileen.Hughes@wwu.edu	<b>Associate Professor</b> Marilyn Chu Miller Hall 302B 360-650-2737 Marilyn.Chu@wwu.edu
<b>Program Manager</b> Miller Hall 301D 360-650-7948	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	

**Sample Careers**  
Elementary Education Teacher (P-3) | Head Start | Childcare  
**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Admission to both Western Washington University and Early Childhood Education are required before a student may begin taking courses in the professional sequence. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher for the last 45 credits
- Meet the West-B basic skills requirement. This may be met by: a) passing the West-B exam, b) SAT minimum scores, or c) ACT minimum scores. See the Woodring admissions website: [wce.wwu.edu/admissions/west-b-requirement](http://wce.wwu.edu/admissions/west-b-requirement) and the West-B website: [www.west.nesinc.com](http://www.west.nesinc.com)
- completion of an English composition course with grade of B- or higher

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, 360/650-3313 or visit the website at <http://www.wce.wwu.edu/admiss>. Retention in the program requires continuous demonstration of competence in standard oral and written English in all course work. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon admission to Early Childhood Education. Courses required for a state teaching endorsement and for the professional sequence must be completed with grades of C (2.0) or better.  
Student Advisement

## ELEMENTARY EDUCATION

Prospective Early Childhood students are invited to meet with an advisor for more information about the program. The office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the early childhood education professional program and in all courses required for the endorsement.

### Requirements

#### Required courses (43 credits)

- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- ECE 434 - Environments for Early Learning
- ECE 435 - Child Abuse and Neglect
- ECE 436 - Child Guidance: Principles and Practices
- ECE 438 - Family and Community Relationships
- ECE 439 - Curriculum Planning in Early Childhood Education
- SPED 443 - Early Development Variations
- SPED 444 - Assessment and Intervention in Early Childhood Special Education

### Additional Requirements

#### Early Childhood Education Professional Program (80 credits)

- ECE 380 - Foundations of Literacy for Early Childhood Education
- ECE 495 - Internship - Preschool
- ECE 496 - Internship - Primary
- ECE 498 - Seminar in Early Childhood Education (2 credits with ECE 495)
- ELED 310 - Education, Culture, and Equity
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 491 - September Experience
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 364 - Teaching Each Student

#### Early Childhood Education P-3 with Elementary Education Option, BAE

Department of Elementary Education, Woodring College of Education

**133 credits (major and professional program)****Introduction**

The program in early childhood education consists of an academic major in Early Childhood Education and a sequence of professional certification courses that lead to dual endorsements for teacher licensure Pre-K through third grade and K-8th grade. Upon completion of the program, candidates can work in childcare centers, preschools, Head Start programs, and primary grades in public schools. The course work offers a combination of theory, methods, and field experiences in a variety of early childhood education settings.

Students seeking a bachelor's degree with teacher certification and an endorsement in early childhood education (P-3) and K-8th grade licensure must complete the General University Requirements, the Early Childhood Education (P-3) Major, and the professional education coursework.

**Why Consider an Early Childhood Education P-3 with Elementary Education Option Major?**

The Early Childhood Education (P-3) major has several unique program features:

- Students attend classes with other early childhood education students as a cohort group throughout the program.
- Students gain experience in teaching children in three age groups (infant/toddlers, pre-primary and primary) and in a variety of settings.
- Students are taught to understand and respect intercultural/familial diversity as they learn to develop partnerships with families.
- Students learn to use inquiry tools and process for developing meaningful and integrated learning experiences for young children.

Contact Information		
<b>Department Chair</b> David Carroll Miller Hall 301E 360-650-2251 David.Carroll@wwu.edu	<b>Program Director</b> Eileen Hughes Miller Hall 303A 360-650-3416 Eileen.Hughes@wwu.edu	<b>Associate Professor</b> Marilyn Chu Miller Hall 302B 360-650-2737 Marilyn.Chu@wwu.edu
<b>Program Manager</b> Miller Hall 301D 360-650-7948	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	

Sample Careers
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Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

**How to Declare (Admission and Declaration Process):**

Admission to both Western Washington University and Early Childhood Education are required before a student may begin taking courses in the professional sequence. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher for the last 45 credits
- Meet the West-B basic skills requirement. This may be met by: a) passing the West-B exam, b) SAT minimum scores, or c) ACT minimum scores. See the Woodring admissions website: [wce.wwu.edu/admissions/west-b-requirement](http://wce.wwu.edu/admissions/west-b-requirement) and the West-B website: [www.west.nesinc.com](http://www.west.nesinc.com)
- completion of an English composition course with grade of B- or higher

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final

## ELEMENTARY EDUCATION

list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, (360) 650-3313 or visit the website at <http://www.wce.wvu.edu/admiss>. Retention in the program requires continuous demonstration of competence in standard oral and written English in all course work. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon admission to Early Childhood Education. Courses required for a state teaching endorsement and for the professional sequence must be completed with grades of C (2.0) or better.  
Student Advisement

Prospective Early Childhood students are invited to meet with an advisor for more information about the program. The office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the early childhood education major and in all courses required for the endorsements.

### Required Courses (43 credits)

- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- ECE 434 - Environments for Early Learning
- ECE 435 - Child Abuse and Neglect
- ECE 436 - Child Guidance: Principles and Practices
- ECE 438 - Family and Community Relationships
- ECE 439 - Curriculum Planning in Early Childhood Education
- SPED 443 - Early Development Variations
- SPED 444 - Assessment and Intervention in Early Childhood Special Education

### Additional Requirements

### Early Childhood and Elementary Education Professional Program (90 credits)

- ECE 495 - Internship - Preschool
- ECE 498 - Seminar in Early Childhood Education
- ELED 310 - Education, Culture, and Equity
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- ELED 496 - Elementary Intern Study Group (Optional)
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School

- ❑ SCED 480 - Science Methods and Curriculum for the Elementary School
- ❑ SCED 490 - Laboratory/Field Experience in Elementary Science
- ❑ SPED 364 - Teaching Each Student

## Early Childhood Education — Non Certification, BAE

Department of Elementary Education, Woodring College of Education

**92 credits**

### Introduction

The program in early childhood education consists of an academic major in Early Childhood Education and a sequence of professional courses. Upon completion of the program, candidates can work in childcare centers, preschools, Head Start programs, and in after-school programs for school-age children. The course work offers a combination of theory, methods, and field experiences in a variety of early childhood education settings. This program is for candidates who are not seeking certification to work in the public schools.

Students seeking a bachelor's degree with the academic major in Early Childhood Education - Non Certification must complete the General University Requirements - and the Early Childhood Education Non Certification Major, and the required professional education coursework.

### Why Consider an Early Childhood Education - Non Certification Major?

The Early Childhood Education - Non Certification major has several unique program features:

- Students attend classes with other early childhood education students as a cohort group throughout the program.
- Students gain experience in teaching children in three age groups (infant/toddlers, pre-primary and primary) and in a variety of settings.
- Students are taught to understand and respect intercultural/familial diversity as they learn to develop partnerships with families.
- Students learn to use inquiry tools and process for developing meaningful and integrated learning experiences for young children.

Contact Information		
<b>Department Chair</b> David Carroll Miller Hall 301E 360-650-2251 David.Carroll@wwu.edu	<b>Program Director</b> Eileen Hughes Miller Hall 303A 360-650-3416 Eileen.Hughes@wwu.edu	<b>Associate Professor</b> Marilyn Chu Miller Hall 302B 360-650-2737 Marilyn.Chu@wwu.edu
<b>Program Manager</b> Miller Hall 301D 360-650-7948	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	

Sample Careers
Elementary Education Teacher (P-3)   Head Start   Childcare
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

### How to Declare (Admission and Declaration Process):

Admission to both Western Washington University and Early Childhood Education are required before a student may begin taking courses in the professional sequence. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher for the last 45 credits

## ELEMENTARY EDUCATION

- Meet the West-B basic skills requirement. This may be met by: a) passing the West-B exam, b) SAT minimum scores, or c) ACT minimum scores. See the Woodring admissions website: [wce.wvu.edu/admissions/west-b-requirement](http://wce.wvu.edu/admissions/west-b-requirement) and the West-B website: [www.west.nesinc.com](http://www.west.nesinc.com)
- completion of an English composition course with grade of B- or higher

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, (360) 650-3313 or visit the website at <http://www.wce.wvu.edu/admiss>. Retention in the program requires continuous demonstration of competence in standard oral and written English in all course work. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon admission to Early Childhood Education. Courses required for a state teaching endorsement and for the professional sequence must be completed with grades of C (2.0) or better.

Student Advisement

Prospective Early Childhood students are invited to meet with an advisor for more information about the program. The office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

See the Elementary Education section of this catalog for program admission and completion requirements.

### Grade Requirements

Students must earn a grade of C (2.0) or better.

### Required Courses

- ECE 380 - Foundations of Literacy for Early Childhood Education
- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- ECE 434 - Environments for Early Learning
- ECE 435 - Child Abuse and Neglect
- ECE 436 - Child Guidance: Principles and Practices
- ECE 438 - Family and Community Relationships
- ECE 439 - Curriculum Planning in Early Childhood Education
- ECE 495 - Internship - Preschool
- ECE 498 - Seminar in Early Childhood Education
- ELED 310 - Education, Culture, and Equity
- ELED 480 - Literacy: Beginning Communicators
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 364 - Teaching Each Student
- SPED 443 - Early Development Variations
- SPED 444 - Assessment and Intervention in Early Childhood Special Education

### Language, Literacy, and Cultural Studies, BAE

Department of Elementary Education, Woodring College of Education

**45-54 credits****Introduction**

The Bachelor of Arts in Education: Language, Literacy, and Cultural Studies major responds to the growing diversity in the state's schools and supports the Woodring College of Education's efforts to embrace diversity and promote social justice. The major focuses on research-based and experience-validated knowledge to help elementary school teachers reach all students. This includes increasing teacher candidates' cultural competency and capacity to teach English language learners. Graduates receive WWU's recommendation for a Residency Teaching Certificate with endorsements in Elementary Education, Reading, and English Language Learners (ELL) or Bilingual Education (BE).

**Why Consider a Language, Literacy and Culture Major?**

The LLC major was designed in response to requests from schools for elementary teachers to have the dispositions, knowledge, and skills to work with an increasingly diverse elementary student population and their families. Prior to entering the program, undergraduates will complete most or all of their general university requirements (GURs). After completion of the GURs, it will usually take eight or nine quarters to graduation, given a course load of 15-17 credits. Post-baccalaureate students must have completed a major from the approved list (see below) or call (360) 650-3336 for further advisement.

**Contact Information****Department Chair**

David Carroll  
Miller Hall 301E  
360-650-2251  
David.Carroll@wwu.edu

**Program Manager**

Miller Hall 301D  
360-650-7948

**Program Director**

David Carroll  
Miller Hall 301E  
360-650-2251  
David.Carroll@wwu.edu

**Teacher Education Admissions**

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

**Sample Careers**

Elementary Education Teacher

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Admission to Western Washington University and admission to Elementary Education are required before a student may begin taking courses in the Professional Sequence and most courses in the Language, Literacy and Cultural Studies major. Please consult the LLC sheet and receive advisement for information about courses that may be taken before admission. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher overall or for the last 45 credits
- Meet the West-B basic skills requirement. This may be met by: a) passing the West-B exam, b) SAT minimum scores, or c) ACT minimum scores. See the Woodring admissions website: [wce.wwu.edu/admissions/west-b-requirement](http://wce.wwu.edu/admissions/west-b-requirement) and the West-B website: [www.west.nesinc.com](http://www.west.nesinc.com)
- completion of an English composition course with grade of B- or higher
- completed application (see web site for dates)

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, 360-650-3313 or visit the web site at [www.wce.wwu.edu/admiss](http://www.wce.wwu.edu/admiss).

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon

## ELEMENTARY EDUCATION

admission to Elementary Education. Courses required for a state teaching endorsement and for the professional education sequence must be completed with a grading of C (2.0) or better.

### Student Advisement

Prospective elementary education students are invited to meet with an advisor for more information about the program. The main office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Requirements

- ELED 456 - Literacy Assessment
- ELED 486 - Literacy Difficulties in the K-12 Classroom
- ELED 401 - Writing Instruction in the Elementary Classroom
- ELED 405 - Culturally Relevant Materials for Diverse Learners
- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers
- ELL 438 - Methods and Programming for P-12 Bilingual Classrooms (for students seeking a bilingual endorsement)
- Choose two from the following (no more than one of which may be a 400 level course):
  - AMST 202 - The American Indian Experience
  - AMST 203 - The Hispano/a-American Experience
  - AMST 204 - The African-American Experience
  - AMST 205 - The Asian-American Experience
  - AMST 314 - Contemporary Latino/A Issues
  - AMST 315 - Contemporary American Indian Issues
  - AMST 316 - Contemporary African American Issues
  - AMST 362 - Asian-American History
  - AMST 412 - Seminar in Educational Equity
  - AMST 413 - Bridging Barriers with Migrant Youth
  - AMST 464 - Multicultural Education for Teachers

### Additional Requirements

### Elementary Education Professional Program Requirements (100-103 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.



## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (22 credits)

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-81 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Additional Endorsement

### Bilingual Education — Endorsement

Department of Elementary Education, Woodring College of Education

#### 32 credits

**NOTE:** The Bilingual Endorsement is only for those who are already P-12 teachers or in a P-12 teacher education program and who are working toward or already bilingual.

# ELEMENTARY EDUCATION

## Introduction

This program leads to an additional endorsement in Bilingual Education; when accompanied by a professional teacher education program and a first endorsement in another content area. Also required is a cultural studies course taught in the language of that culture or demonstration of equivalent experience. Expected proficiency is equivalent to a major in the language other than English, and oral proficiency at the ACTFL mid-advanced level. Each required course must be completed with a grade of B- (2.7) or better. A passing score on the Bilingual WEST-E and an assessment in the non-English language of instruction is required by the state.

## Why Consider an Endorsement in Bilingual Education?

Teachers with the endorsement in Bilingual Education from Western Washington University possess in-depth understandings of the role of cultural and linguistic diversity in each student's education and the demonstrated ability to use research-based instruction when teaching in English and also in a non-English target language. The numbers of bilingual schools continue to grow across the United States as research documents the benefits of quality programs. Our program includes study of a variety of models for bilingual education, including two-way, dual, one-way, and early exit models. In addition, current issues related to bilingual education are explored. Teachers who earn the bilingual endorsement can also apply for the English Language Learner Endorsement.

The Bilingual Education endorsement prepares you to:

- Obtain the WA state endorsement for Bilingual Education
- Teach standards-based content in a target language other than English
- Work with families from various cultures
- Serve as a resource for other teachers
- Instruct using effective methods including strategies from the Guided Language Acquisition Design (GLAD)
- Thrive in culturally and linguistically diverse settings

### Contact Information

Dr. Marsha Riddle Buly  
360-650-7348  
Marsha.RiddleBuly@wwu.edu

### Sample Careers

Dual Language Teacher | Bilingual Teacher | ELL Teacher | Bilingual Coach

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Application and information on the application process for the Bilingual Education Endorsement is available in MH 300. More information on the program and application requirements is available at:

<https://wce.wwu.edu/sites/wce.wwu.edu/files/ELED%20-%20Bilingual%20Endorsement%20for%20P-12%20Teachers.pdf>.

## Grade Requirements

Each required course must be completed with a grade of B- (2.7) or better.

## Requirements

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers
- ELL 438 - Methods and Programming for P-12 Bilingual Classrooms

## English Language Learner Endorsement

Department of Elementary Education, Woodring College of Education

### 27 credits

**Note:** The ELL endorsement is only for those who are already P-12 teachers or in a P-12 teacher education program. If you are interested in teaching or working with language learners in a non P-12 school, you may be interested in the Teaching English as a Second Language (TESL) certificate (see TESL Certificate handout or consult [www.wvu.edu/tesol](http://www.wvu.edu/tesol)).

### Introduction

The Department of Elementary Education offers teacher endorsement programs in both English Language Learners (ELL) and in Bilingual Education. While an undergraduate can add both an ELL and a bilingual endorsement, only one minor can be declared; TESOL P-12 focus or bilingual education.

This program leads to an additional endorsement in English Language Learners based on Washington state English Language Learners endorsement competencies, when accompanied by a professional teacher education program and a first endorsement in another content area. Students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level language study world language other than English. A passing score on the ELL WEST-E is required by the state.

### Why Consider an English Language Learner Endorsement?

Students who are English language learners are the fastest growing student population in the public school system. Statewide, approximately 10% of all P-12 students are ELLs, but in some districts that percentage is much, much higher. In order to meet the needs of this diverse population in the regular classroom and as an ELL specialist, we need teachers at all grade levels and content areas who have the ELL endorsement. For many schools, this is a highly recommended endorsement.

Teachers with the endorsement in English Language Learners (ELL) from Western Washington University possess in-depth understandings of the role of cultural and linguistic diversity in each student's education. Our program focuses on developing the mainstream P-12 classroom teacher's ability to shelter and support the instruction of language learners in mainstream classrooms, who are at all levels of fluency, as they work to achieve state expectations in subject matter content. Some teachers with ELL endorsements go on to become school ELL Specialists. ELL Specialists are usually experienced teachers who have taught language learners successfully for several years and have previously earned the ELL endorsement. Many earn a master's degree or National Board certification in ELL prior to becoming a school or district ELL Specialist.

The ELL endorsement program prepares you to:

- Obtain the WA state endorsement for English Language Learners.
- Teach a range of language learners in a mainstream classroom.
- Work with families from various cultures and home languages.
- Serve as a resource for other teachers.
- Plan instruction using the Sheltered Instruction Observation Protocol (SIOP).
- Instruct using effective methods including strategies from the Guided Language Acquisition Design (GLAD).
- Thrive in culturally and linguistically diverse settings.

#### Contact Information

Dr. Jennifer Green  
360-650-2395  
[Jennifer.Green@wwu.edu](mailto:Jennifer.Green@wwu.edu)

#### Sample Careers

Classroom teacher P-12 | ELL specialist

#### Major/Career Resources

## ELEMENTARY EDUCATION

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

Once you are admitted into an education program in Woodring, you will need to fill out a pink ELL endorsement application form prior to register for any of the ELL courses. This is not a competitive process. If you made it into an education program, you can be in the ELL endorsement program. If you have questions about the form, please contact Margaret Gegenhuber at [margaret.gegenhuber@wvu.edu](mailto:margaret.gegenhuber@wvu.edu).

### **Grade Requirements**

Each required course must be completed with a grade of B- (2.7) or better.

#### Requirements

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers

## **ESOL Endorsement for Teachers**

Department of Elementary Education, Woodring College of Education

### **27 credits**

#### **Introduction**

The ESOL Endorsement for Teachers (ESLT) program has been developed for practicing teachers who wish to learn more about supporting English language learners (ELLs) in their classroom and developed skills needed to become ESOL specialist in the future. The program is designed to meet the needs of the working teacher. The cohort-model program is a 13-month program that is a mix of online learning and face-to-face meetings where the teachers are. In other words, the program travels to the teachers rather than making teachers travel to Bellingham. We understand that teachers come to this program with skills, knowledge, and experiences that will deepen everyone's learning.

The ESOL Endorsement for Teachers (ESLT) program has two tracks. The first is an endorsement program that can be fully rolled into the Masters of Education in Language and Literacy at Western Washington University. The classes are all 500-level courses. The second track has 400-level courses. Teachers enrolled in both tracks will take the courses together and learn from each other.

For more information on the program go to [wvu.edu/esol](http://wvu.edu/esol).

#### **Why Consider an ESOL Endorsement for Teachers?**

Students who are English language learners are the fastest growing student population in the public school system. Statewide, approximately 10% of all P-12 students are ELLs, but in some districts that percentage is much, much higher. In order to meet the needs of this diverse population in the regular classroom and as an ELL specialist, we need teachers at all grade levels and content areas who have the ELL endorsement. For many schools, this is a highly recommended endorsement.

Teachers with the endorsement in English Language Learners (ELL) from Western Washington University possess in-depth understandings of the role of cultural and linguistic diversity in each student's education. Our program prepares classroom teachers to be able to support ELLs more successfully. This program also prepares classroom teachers to become ELL specialists.

The ELL endorsement program prepares you to:

- Obtain the WA state endorsement for English Language Learners.
- Teach a range of language learners in a mainstream classroom.
- Support ELLs as an ELL specialist
- Work with families from various cultures and home languages.
- Serve as a resource for other teachers.
- Plan instruction using the Sheltered Instruction Observation Protocol (SIOP).
- Instruct using effective methods including strategies from the Guided Language Acquisition Design (GLAD).
- Thrive in culturally and linguistically diverse settings.

#### Contact Information

Dr. Jennifer Green  
360-650-2395  
Jennifer.Green@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Teachers will apply through Extended Education.

### Grade Requirements

A grade of C or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Track 1

- ELL 560 - Sociocultural Theory and Policy Sequence for P-12 Teachers
- ELL 561 - Second Language Acquisition and Linguistics for P-12 Teachers
- ELL 562 - Assessment of Culturally and Linguistically Diverse Learners for P-12 Teachers
- ELL 563 - English Grammar and Academic Language for P-12 Teachers
- ELL 564 - Methods for Teaching Beginning ELLs for P-12 Teachers
- ELL 565 - Supporting ELLs Across the Content Areas for P-12 Teachers
- ELL 566 - Capstone for the ESLT Program

Minimum of 4 observations using the SIOP protocol (2 in ELL 564 and 2 in ELL 565).

P-12 certification.

Currently teaching or has access to a classroom and curriculum materials to complete assignments.

Foreign Language - 3 years of high school, 1 year of college, or equivalent experience.

#### Track 2

- ELL 460 - Sociocultural Theory and Policy Sequence for P-12 Teachers
- ELL 461 - Second Language Acquisition and Linguistics for P-12 Teachers
- ELL 462 - Assessment of Culturally and Linguistically Diverse Learners for P-12 Teachers
- ELL 463 - English Grammar and Academic Language for P-12 Teachers
- ELL 464 - Methods for Teaching Beginning ELLs for P-12 Teachers
- ELL 465 - Supporting ELLs Across the Content Areas for P-12 Teachers
- ELL 466 - Capstone for the ESLT Program

Minimum of 4 observations using the SIOP protocol (2 in ELL 464 and 2 in ELL 465).

P-12 certification.

Currently teaching or has access to a classroom and curriculum materials to complete assignments.

Foreign Language - 3 years of high school, 1 year of college, or equivalent experience.

# ELEMENTARY EDUCATION

## Reading — P-12 Additional Endorsement

Department of Elementary Education, Woodring College of Education

### 24-27 credits

**NOTE:** The Reading endorsement program is only for those who are already P-12 teachers or in a P-12 teacher education program.

### Introduction

This program, combined with a performance-based assessment of competencies, leads to an additional endorsement in Reading when accompanied by a professional education program and a qualifying endorsement in another content area.

### Why Consider a P-12 Additional Endorsement in Reading?

The competencies that lead to a reading endorsement on your certificate provide you with the opportunity to further your knowledge and skills for literacy instruction. You will deepen your knowledge of language and literacy learning, while building your capacity for helping all children achieve as readers, writers, and language users. Some teachers with Reading endorsements go on to become school Reading Specialists. Reading Specialists are usually experienced teachers who have successfully taught in mainstream classrooms for several years and have previously earned the Reading endorsement. Many earn a master's degree or National Board certification in Reading prior to becoming a school or district Reading Specialist.

The Reading endorsement program prepares you to:

- Obtain the WA state endorsement for Reading.
- Develop and work with P-12 students and their families.
- Serve as a resource for other teachers.

#### Contact Information

Dr. Marsha Riddle Buly  
360-650-7348  
Marsha.RiddleBuly@wwu.edu

#### Sample Careers

Reading teacher | Literacy coach | Title I reading | Support teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Application and information on the application process for the P-12 Reading Endorsement is available in MH 300. More information on the program and application requirements is available at:  
<https://wce.wwu.edu/sites/wce.wwu.edu/files/ELED%20-%20Reading%20Endorsement.pdf>.

### Grade Requirements

All coursework and demonstration of state-required competencies must be completed with a grade of B (3.0) or better and within a five-year span, based on the application date for the reading endorsement.

### Requirements

- One course from:
  - ELED 456 - Literacy Assessment
  - ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Educationor equivalence upon approval by advisor
- One course from:
  - ELED 480 - Literacy: Beginning Communicators

- ELED 587 - Improvement of Instruction in Literacy  
or equivalence upon approval by advisor
- ❑ One course from:
  - ELED 481 - Literacy: Fluent Communicators
  - ELED 584 - Teaching the Integrated Language Arts  
or equivalence upon approval by advisor
- ❑ One course from:
  - ELED 486 - Literacy Difficulties in the K-12 Classroom
  - ELED 586 - Seminar for Literacy Specialists  
or equivalence upon approval by advisor
- ❑ One course from:
  - ELL 432 - Introduction to English Linguistics for P-12 Teachers
  - TESL 401 - Introduction to English Linguistics for TESOL  
or equivalence upon approval by advisor
- ❑ One course from:
  - ELED 405 - Culturally Relevant Materials for Diverse Learners
  - ELED 583 - Literacy and Children's Literature  
or equivalence upon approval by advisor

## Master of Education

### Language and Literacy, Non-Thesis, MEd

Department of Elementary Education, Woodring College of Education

#### Graduate Faculty

**Carney, Joanne**, PhD.  
**Carroll, David**, PhD.  
**Chu, Marilyn**, PhD.  
**Coskie, Tracy**, PhD.  
**Dagnon, Paula**, PhD.  
**French, Kristen**, EdD.  
**Green, Jennifer**, PhD.  
**Hughes, Eileen**, PhD.  
**Johnson, Nancy**, PhD.  
**Larson, Bruce**, PhD.  
**Lees, Anna**, PhD.  
**McClanahan, Lauren**, PhD.  
**Miller, Matthew**, PhD.  
**Ohana, Chris**, PhD.  
**Romano, Rosalie**, PhD.  
**Riddle Buly, Marsha**, PhD.  
**Timmons Flores, Maria**, PhD.  
**Wayne, Kathryn**, PhD.

Graduate Program Advisors: Dr. Tracy Coskie, Miller Hall 305A, 360-650-2164; Dr. Marsha Riddle Buly, Miller Hall 305B, 360-650-7348.

#### Program Description

The MEd – Language and Literacy has four main components: foundations, core study, independent research, and study in a concentration area. May provide Washington state additional endorsement in reading, ELL, or bilingual education.

#### Program Application/Admission Requirements

Candidates must meet the requirements of the Graduate School (see pages 58-59) in addition to the following departmental requirements:

## ELEMENTARY EDUCATION

- **Specific Test Requirements:** Miller Analogies Test or Graduate Record Exam, General Test.
- **Supporting Materials:**
  - A résumé
  - A statement of purpose for seeking the MEd, not to exceed one page
  - An on-campus interview (only if requested by the department)
  - In limited cases, students who do not meet the departmental requirements for full admission may be granted provisional admission by the Graduate School.

Students' applications are first reviewed by the Graduate School before consideration for admission to a specific program. No graduate Record Exams (GRE) or Miller Analogies Test (MAT) is required if an applicant holds an advanced degree.

### Program Requirements (47 credits minimum)

#### Non-Thesis: Research Paper and General Comprehensive Exam

- Foundations (12 credits)
  - EDUC 501 - Introduction to Educational Research
  - EDUC 691 - Research Seminar and Inquiry Project
  - I T 515 - Emerging Technologies and New Literacies
- Core (15-16 credits)
  - ELED 521 - Seminar in Elementary Curriculum
  - ELED 535 - Research Analysis of Current Issues in Elementary Education
  - ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Education  
or ELL 562 - Assessment of Culturally and Linguistically Diverse Learners for P-12 Teachers
  - ELED 587 - Improvement of Instruction in Literacy
- Concentration Electives (19-20 credits): Concentration electives will generally be selected, by advisement, from elementary and early childhood education, literacy, TESOL, ELL, Bilingual Education, and special education courses. Contact the department office for requirements within the various concentrations.

### Advancement to Candidacy

Advancement to candidacy is formal recognition that the student has completed all admission requirements and has demonstrated satisfactory performance in at least 12 credits of graduate study. In addition to the above requirements, the department requires students to submit a proposal for a research paper (EDUC 691) for approval by the student's committee.

### Research Paper

The research paper plus comprehensive exams (EDUC 691) represent the independent research component of the program. Students design and carry out independent research under the direction of a faculty committee. Two faculty are required for the committee directing the research paper (EDUC 691).

### Additional Information

#### Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 204.

#### Transfer from ESOL Endorsement for Teachers Program

Students who are currently enrolled in or who have completed the WWU ESLT program may transfer up to 27 credits earned into the M.Ed. - Language and Literacy program. The 27 credits must fall within other graduate school guidelines (e.g., taken within the last five years, no more than 10 400-level credits, etc.) and be accepted by the program advisors.



## Comprehensive Assessment Woodring

College of Education students in the Non-Thesis option are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

## Second Master's Degree

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**Note:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

Post-baccalaureate candidates interested in combining teacher certification and master's degree study should contact the Teacher Education Admissions office or the Graduate Office.

Some programs include an internship. A Washington State Patrol/FBI fingerprint check is required of most students prior to the internship. Students should check with their department advisor for details.

## Language and Literacy, Thesis, MEd

Department of Elementary Education, Woodring College of Education

### Graduate Faculty

**Carney, Joanne**, PhD.

**Carroll, David**, PhD.

**Chu, Marilyn**, PhD.

**Coskie, Tracy**, PhD.

**Dagnon, Paula**, PhD.

**French, Kristen**, EdD.

**Green, Jennifer**, PhD.

**Hughes, Eileen**, PhD.

**Johnson, Nancy**, PhD.

**Larson, Bruce**, PhD.

**Lees, Anna**, PhD.

**McClanahan, Lauren**, PhD.

**Miller, Matthew**, PhD.

**Ohana, Chris**, PhD.

**Romano, Rosalie**, PhD.

**Riddle Buly, Marsha**, PhD.

**Timmons Flores, Maria**, PhD.

**Wayne, Kathryn**, PhD.

Graduate Program Advisors: Dr. Tracy Coskie, Miller Hall 305A, 360-650-2164; Dr. Marsha Riddle Buly, Miller Hall 305B, 360-650-7348.

### Program Description

The MEd – Language and Literacy has four main components: foundations, core study, independent research, and study in a concentration area. May provide Washington state additional endorsement in reading, ELL, or bilingual education.

### Program Application/Admission Requirements

Candidates must meet the requirements of the Graduate School (see pages 58-59) in addition to the following departmental requirements:

## ELEMENTARY EDUCATION

- **Specific Test Requirements:** Miller Analogies Test or Graduate Record Exam, General Test.
- **Supporting Materials:**
  - A résumé
  - A statement of purpose for seeking the MEd, not to exceed one page
  - An on-campus interview (only if requested by the department)
  - In limited cases, students who do not meet the departmental requirements for full admission may be granted provisional admission by the Graduate School.

Students' applications are first reviewed by the Graduate School before consideration for admission to a specific program. No graduate Record Exams (GRE) or Miller Analogies Test (MAT) is required if an applicant holds an advanced degree.

### Program Requirements (47 credits minimum)

- Foundations (12 credits)
  - EDUC 501 - Introduction to Educational Research
  - EDUC 690 - Thesis
  - I T 515 - Emerging Technologies and New Literacies
- Core (15-16 credits)
  - ELED 521 - Seminar in Elementary Curriculum
  - ELED 535 - Research Analysis of Current Issues in Elementary Education
  - ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Education  
or ELL 562 - Assessment of Culturally and Linguistically Diverse Learners for P-12 Teachers
  - ELED 587 - Improvement of Instruction in Literacy
  - Concentration Electives (19-20 credits) Concentration electives will generally be selected, by advisement, from elementary and early childhood education, literacy, TESOL, ELL, Bilingual Education, and special education courses. Contact the department office for requirements within the various concentrations.

### Advancement to Candidacy

Advancement to candidacy is formal recognition that the student has completed all admission requirements and has demonstrated satisfactory performance in at least 12 credits of graduate study. In addition to the above requirements, the department requires students to submit a proposal for a thesis (EDUC 690) for approval by the student's committee.

### Thesis

The thesis (EDUC 690) represents the independent research component of the program. Students design and carry out independent research under the direction of a faculty committee. The thesis option (EDUC 690) requires a committee of three faculty.

### Additional Information

### Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 204.

### Transfer from ESOL Endorsement for Teachers Program

Students who are currently enrolled in or who have completed the WWU ESLT program may transfer up to 27 credits earned into the M.Ed. - Language and Literacy program. The 27 credits must fall within other graduate school guidelines (e.g., taken within the last five years, no more than 10 400-level credits, etc.) and be accepted by the program advisors.

## Second Master's Degree

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**Note:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

Post-baccalaureate candidates interested in combining teacher certification and master's degree study should contact the Teacher Education Admissions office or the Graduate Office.

Some programs include an internship. A Washington State Patrol/FBI fingerprint check is required of most students prior to the internship. Students should check with their department advisor for details.

## Minor

### Bilingual Education Minor

Department of Elementary Education, Woodring College of Education

#### 32 credits

**Note:** The Bilingual Education Minor is for undergraduate students in a P-12 teacher education program who are working toward or already fluent in a language in addition to English.

#### Introduction

Undergraduates may complete a 32-credit minor in Bilingual Education. To declare the Bilingual Education minor, students must complete a cultural studies course taught in the language of that culture, or demonstrate the equivalent in experience. Students must also be recommended by the department of Modern and Classical Languages prior to enrolling in the seminar and practicum in Bilingual Education or declaring the minor. Students must complete the minor with a minimum GPA of 2.7 in minor course work.

#### Why Consider a Bilingual Education Minor?

Teachers with a Bilingual Education Minor from Western Washington University possess in-depth understandings of the role of cultural and linguistic diversity in each student's education and the demonstrated ability to use research-based instruction when teaching in English and also in a non-English target language. The numbers of bilingual schools continue to grow across the United States as research documents the benefits of quality programs. Our program includes study of a variety of models for bilingual education, including two-way, dual, one-way, and early exit models. In addition, current issues related to bilingual education are explored. Teachers who earn the Bilingual Education Minor may also be able to seek the state English Language Learner and Bilingual Education endorsement (check current state requirements).

The Bilingual Education Minor program prepares you to:

- Teach standards-based content in a target language other than English.
- Work with families from various cultures.
- Serve as a resource for other teachers.
- Instruct using effective methods including strategies from the Guided Language Acquisition Design (GLAD).
- Thrive in culturally and linguistically diverse settings.

#### Contact Information

Dr. Marsha Riddle Buly  
360-650-7348  
Marsha.RiddleBuly@wwu.edu

## ELEMENTARY EDUCATION

### Sample Careers

Dual Language Teacher | Bilingual Teacher | ELL Teacher | Bilingual Coach

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

To be admitted to the P-12 bilingual minor apply in Miller Hall 300.

### Grade Requirements

Students must complete the minor with a minimum GPA of 2.7 in minor course work.

### Requirements

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers
- ELL 438 - Methods and Programming for P-12 Bilingual Classrooms

## Teaching English to Speakers of Other Languages Minor

Department of Elementary Education, Woodring College of Education

### 27 credits

### Introduction

The TESOL minor is available to undergraduate students in both the TESOL certificate program and the ELL endorsement program. The TESOL adult focus minor includes 27 credits of TESOL coursework, while the TESOL P-12 focus includes 27 credits of ELL coursework for students in teacher-certification programs. Students completing the TESOL adult focus minor may also earn a certificate in TESOL.

Students earning an ELL and/or Bilingual Education endorsement may choose to complete either the 27-credit TESOL minor with a focus on P-12 learners or the 33-credit Bilingual Education minor, but not both. To declare the TESOL minor, students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study.

### Why Consider a Teaching English to Speakers of Other Languages Minor?

**TESOL adult focus minor:** There is a growing demand around the world for trained TESOL professionals. Successful completion of Western's TESOL Program provides a minor (for students enrolled in a Bachelor's degree program at Western), an international certificate, and the skills to thrive in settings that are culturally and linguistically diverse. The TESOL certificate demonstrates evidence of in-depth training, opening doors to opportunities to teach English internationally and nationally. Employment may be found at international language schools and community language settings for recent immigrants.

**TESOL P-12 focus minor:** Students who are English language learners are the fastest growing student population in the public school system. Statewide, approximately 10% of all P-12 students are ELLs, but in some districts that percentage is much, much higher. In order to meet the needs of this diverse population in the regular classroom and as an ELL specialist, we need teachers at all grade levels and content areas who have the TESOL P-12 focus minor. For many schools, this is a highly recommended qualification.

**Contact Information****TESOL adult focus minor**

Trish Skillman, TESOL Program Director  
360-650-4699  
Trish.Skillman@wwu.edu

**TESOL P-12 focus minor**

Dr. Jennifer Green, ELL Program Director  
ELL Program Director  
360-650-2395  
Jennifer.Green@wwu.edu

**Sample Careers**

**TESOL adult focus minor:** Employment may be found at international language schools and community language settings for recent immigrants. The cross-cultural, cross-linguistic, and presentation skills developed in the program are valued in a variety of careers that involve working with diverse populations.

**TESOL P-12 focus minor:** Classroom teacher P-12; ELL specialist

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**Grade Requirements**

Students must complete the minor with a minimum GPA of 2.7 in minor course work.

**Requirements**

Adult focus for TESOL Certificate Students:

- TESL 401 - Introduction to English Linguistics for TESOL
- TESL 404 - Understanding English Grammar for TESOL
- TESL 405 - Methods for Teaching English Grammar
- TESL 410 - Second Language Acquisition Theory for TESOL
- TESL 420 - Methods and Materials for Basic Communication
- TESL 421 - Methods and Materials for Academic Language Proficiency
- TESL 432 - Seminar in TESOL
- TESL 435 - Practicum in TESOL

or

P-12 Focus for ELL Endorsement Students:

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers

**WWU Certificate (Non-Degree)****TESOL Certificate**

Department of Elementary Education, Woodring College of Education

**27 credits**

**Introduction**

Completion of the 27 credit sequence of courses results in a TESOL certificate awarded by Western Washington University. This certificate can be used both domestically and internationally as evidence of in-depth training in Teaching English to Speakers of Other Languages (TESOL). The program is academically rigorous and experientially rich. TESOL students must successfully complete TESOL track coursework in methodology and linguistics with a minimum GPA of 2.7, demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study. TESOL certificate candidates accumulate 100 hours of teaching experience with English language learners through classroom tutoring and a supervised and mentored teaching practicum.

# ELEMENTARY EDUCATION

## Why Consider a TESOL Certificate?

There is a growing demand around the world for trained TESOL professionals. Successful completion of Western's TESOL Program provides a minor (for students enrolled in a Bachelor's degree program at Western), an international certificate, and the skills to thrive in settings that are culturally and linguistically diverse. The TESOL certificate demonstrates evidence of in-depth training, opening doors to opportunities to teach English internationally and nationally. Employment may be found at international language schools and community language settings for recent immigrants.

### Contact Information

#### TESOL Program Director

Trish Skillman  
360-650-4699  
Trish.Skillman@wwu.edu

### Sample Careers

Employment may be found at international language schools and community language settings for recent immigrants. The cross-cultural, cross-linguistic, and presentation skills developed in the program are valued in a variety of careers that involve working with diverse populations.

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Review the following eligibility requirements and application process for currently enrolled Western students and for prospective students not yet formally admitted to the University. Additional information can be found on the "How to Apply" section of the TESOL webpage at <https://wce.wwu.edu/tesol/how-apply>.

### Eligibility

- Applicants must have completed at least 45 credits of college-level coursework with a preferred minimum GPA of 3.0.
- Non-native English speakers are required to have a TOEFL score of 550 or higher.
- Successful completion of a criminal background check.

### Students currently admitted/enrolled at Western

- Submit the TESOL Program Application.
- Once admitted to the TESOL program, you will be provided with registration information.

### Prospective students not currently enrolled at Western

- Submit WWU Admissions Application, transcripts and fee.
- Submit the TESOL Program Application.
- Once formally admitted to Western and to the TESOL program, you will be provided details on how to register.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- TESL 401 - Introduction to English Linguistics for TESOL
- TESL 404 - Understanding English Grammar for TESOL
- TESL 405 - Methods for Teaching English Grammar
- TESL 410 - Second Language Acquisition Theory for TESOL
- TESL 420 - Methods and Materials for Basic Communication
- TESL 421 - Methods and Materials for Academic Language Proficiency
- TESL 432 - Seminar in TESOL
- TESL 435 - Practicum in TESOL

# State Issued Certificate Preparation (Non-Degree)

## Elementary Education Professional Program

Department of Elementary Education, Woodring College of Education

**100-103 credits**

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Why Consider an Elementary Education Professional Program?

Elementary teachers have a unique opportunity to make a difference in their communities by laying the foundation for both future academic learning and for future participation in democratic society. By helping students learn how to learn, develop problem-solving capacities, cultivate stamina, and learn the value of practice, they set the stage for successful life-long learning. By introducing students to key understandings and inquiry processes of subject matter disciplines, they set the stage for deeper learning through subsequent schooling. By helping students learn to appreciate each other, value their differences, and collaborate successfully, they help build healthy, sustainable, globally interconnected communities for tomorrow. By doing all of these things, they help address existing inequities and promote the well-being of our society.

#### Contact Information

Dr. David Carroll  
Miller Hall 301E  
360-650-2251  
David.Carroll@wwu.edu

#### Sample Careers

Elementary school teacher | middle school teacher with additional endorsements

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Requirements

Professional Studies Core: 22 credits

- ELED 303 - Educational Psychology - Development and Learning
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- SPED 364 - Teaching Each Student

## ELEMENTARY EDUCATION

Elementary Program — Methods, Curriculum Content, and Field Experiences: 78-81 credits

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Elementary Education Professional Program — Outreach Program

Department of Elementary Education, Woodring College of Education

**99 credits**

### Introduction

Students who have completed a bachelor's degree in an approved academic major and are seeking teacher certification with an endorsement in elementary education through Teacher Education Outreach Programs should complete the Elementary Education Professional Program - Outreach Program requirements. Program coursework listed below includes some special education content and is delivered through a cohort-based integrated model designed specifically for outreach program sites.

#### Contact Information

##### Assistant Dean

Larry Antil  
Miller Hall 256B  
360-650-7505  
Larry.Antil@wwu.edu

##### Program Manager

Joanna Reynoso  
Miller Hall 256C  
360-650-2725  
Joanna.Reynoso@wwu.edu

### How to Declare (Admission and Declaration Process):

Before students may begin taking courses in education, they must be admitted to both Western Washington University and Teacher Education Outreach Programs. Admission to our programs occurs once a year in the fall. Program admission requirements include:

- Bachelor of Arts or Science in an approved academic major (see below)



- Minimum grade point average of 2.75 overall or for the most recent 45 quarter credit hours
- State minimum scores on the Washington Educator Skills Test Basic (WEST-B). This test is offered 6 times a year at various sites in the state. Visit the Woodring admissions website: [wce.wvu.edu/admissions/west-b-requirement](http://wce.wvu.edu/admissions/west-b-requirement) and the WEST-B website: [www.west.nesinc.com](http://www.west.nesinc.com)
- English composition course, completed with a B- or better
- Three letters of recommendation
- Reflective essay

For more details about program admission, please see the Frequently Asked Questions page at [www.wce.wvu.edu/depts/teop](http://www.wce.wvu.edu/depts/teop).

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter after admission. The State of Washington requires students to earn a "C" or better in all major endorsement and most education courses.

See the Teacher Education Outreach Programs section of this catalog for program admission, completion, and teacher certification requirements.

## Advisement

Prospective elementary education students are invited to meet with an advisor for more information about the program (see above for site contacts). At all TEOP sites, the student advisor is the Academic Program Director. Students will be assisted and monitored by their advisors and their program coordinator on a regular basis throughout their program.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

## Requirements

- ART 380 - Art Educating the Child
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 372 - Introduction to Teaching Seminar
- ELED 373 - Introduction to Teaching - Practicum
- ELED 380 - Literacy I: Foundations
- ELED 426 - Social Studies Methods
- ELED 472 - Developing Teaching Seminar
- ELED 473 - Developing Teaching - Practicum
- ELED 474 - Documenting Teaching Seminar
- ELED 475 - Documenting Teaching - Practicum
- ELED 478 - Literacy: Fluent Communicators Seminar
- ELED 479 - Literacy: Fluent Communicators - Practicum
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MUS 361 - Music for Elementary Teachers
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School

## ELEMENTARY EDUCATION

- ❑ SCED 490 - Laboratory/Field Experience in Elementary Science
- ❑ SPED 360 - Introduction to Special Education
- ❑ SPED 440 - Practicum I - General Education
- ❑ SPED 467 - Curriculum-Based Evaluation

## Early Childhood Education Courses

### ECE 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ECE 380 - Foundations of Literacy for Early Childhood Education

Examines research-based literacy development for children, pre-Kindergarten through grade three. Topics include theoretical perspectives on literacy development; influence of language and culture on literature development; and research-based literacy instruction and materials. Emphasis on assessment of early literacy development.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### ECE 390 - Infant and Toddler Practicum and Seminar

Child development theories, learning principles and processes for infants and toddlers. Includes observations in early childhood settings to document actions of infants/toddlers to understand how and what children learn. Weekly seminar and practicum.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### ECE 391 - Preschool Practicum and Seminar

Child development for the ages of three years to eight years. Theories, learning principles and processes for children three to eight years. Includes observations in early childhood settings to document children's actions and words to understand how and what children learn. Weekly

seminar and practicum.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### ECE 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ECE 430 - Creativity & Play in ECE

Developing the skills and techniques for working with children in the arts. Includes visual art, music, drama, and dance/movement. Emphasis on cognitive and literacy development in the context of play.

**Prerequisites & Notes:** ECE 434 or Permission of Instructor

**Credits:** 4

**Grade Mode:** Letter

### ECE 431 - Fundamentals of Early Childhood Education

Introduction to the field of early childhood education. Includes historical perspectives, philosophical bases, major theories, professional ethics, developmentally appropriate practices, curricular approaches, types of early childhood settings, role of the teacher and educational issues.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### ECE 434 - Environments for Early Learning

Elements important to the design of learning environments for young children. Covers the principles that transform space into engaging learning environments. Includes work in early childhood classroom settings to integrate current theory, principles, and early childhood education

practices.

**Prerequisites & Notes:** ECE 390 or ECE 391 or Permission of Instructor

**Credits:** 4

**Grade Mode:** Letter

### **ECE 435 - Child Abuse and Neglect**

Examines multiple issues related to the identification and reporting of young children where abuse and neglect are suspected. Study of child maltreatment, family dynamics and preventive strategies for child, family and community. Examination of ecological perspective and a risk/resilience framework.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **ECE 436 - Child Guidance: Principles and Practices**

This course will examine the theories, principles and practices for developmentally and culturally appropriate guidance for young children. Emphasis is placed on guidance strategies and intervention to facilitate young children's autonomy and self-discipline while promoting development of self-concept, identity and pro-social behaviors and relationships. Effect of adult-child interaction on child guidance, development and learning will be examined.

**Prerequisites & Notes:** ECE 390

**Credits:** 3

**Grade Mode:** Letter

### **ECE 438 - Family and Community Relationships**

Examines the importance of family partnerships in a variety of early childhood education programs and describes family-centered principles and approaches. Emphasis on the role of families in educational programs, diversity in families, family systems, communication with families, community resources, and conferencing with families.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **ECE 439 - Curriculum Planning in Early Childhood Education**

Approaches for planning integrated and meaningful curriculum in early childhood programs, PreK-primary.

**Prerequisites & Notes:** ECE 430; Co-requisite: ECE 495; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ECE 495 - Internship - Preschool**

Supervised teaching experience to develop and demonstrate teaching competence at the preschool level. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching

**Credits:** 6

**Grade Mode:** S/U

### **ECE 496 - Internship - Primary**

Supervised teaching experience to develop and demonstrate teaching competence at the primary level. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching

**Credits:** 10

**Grade Mode:** S/U

### **ECE 498 - Seminar in Early Childhood Education**

Seminar synthesizes the internship experience by providing a forum for discussion of internship objectives and topics. Repeatable once for credit. Must be taken with both ECE 495 and ECE 496. S/U grading.

**Prerequisites & Notes:** Corequisite ECE 495 or ECE 496

**Credits:** 2

**Grade Mode:** S/U

## **Elementary Education Courses**

### **ELED 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ELED 303 - Educational Psychology - Development and Learning**

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Course will explore principles of human development, individual differences, motivation, and learning as they relate to both academic and non-academic functioning. The course will emphasize the implications of these principles for early childhood and elementary settings.

**Prerequisites & Notes:** Admission to Elementary Education Professional Program or permission of department chair. Co-requisite: ELED 370, ELED 310.

**Credits:** 5

**Grade Mode:** Letter

### **ELED 310 - Education, Culture, and Equity**

Issues of culture and social justice as they impact education, schools, and teaching. Includes a service learning component.

**Prerequisites & Notes:** Admission to Elementary Education Professional Program or permission of department chair. Co-requisites: ELED 303, ELED 370, or permission of department chair.

**Credits:** 4

**Grade Mode:** Letter

### **ELED 370 - Introduction to Teaching**

Exploring theoretical and practical approaches to culturally responsive teaching and planning for instruction which engages diverse students in substantive, worthwhile learning. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** Admission to Elementary Education Professional Program or permission of department chair. Co-requisites: ELED 303, ELED 310.

**Credits:** 5

**Grade Mode:** Letter

### **ELED 372 - Introduction to Teaching Seminar**

Exploring theoretical and practical approaches to culturally responsive teaching and planning for instruction which engages diverse students in substantive, worthwhile learning. Not open to students who have received credit for ELED 370.

**Prerequisites & Notes:** Admission to Woodring College's Elementary Teacher Outreach Programs. Co-requisite: ELED 373

**Credits:** 4

**Grade Mode:** Letter

### **ELED 373 - Introduction to Teaching - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED

372. Not open to students who have received credit for ELED 370. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College's Elementary Teacher Education Outreach Programs. Co-Req: ELED 372

**Credits:** 1

**Grade Mode:** S/U

### **ELED 380 - Literacy I: Foundations**

Terminology and concept development of the language of literacy; introduction to assessment, curriculum, and instruction of literacy teaching and learning.

**Prerequisites & Notes:** ELED 370

**Credits:** 4

**Grade Mode:** Letter

### **ELED 386 - Practical Assessment in the Elementary Classroom I**

Develop skills in using assessment methodology to enhance teaching. Topics include assessment models, basic premises, the value of sound assessment procedures, and an examination of the thought processes of educational evaluation.

**Prerequisites & Notes:** Admission to Woodring College Elementary Teacher Education Outreach Programs.

**Credits:** 2

**Grade Mode:** Letter

### **ELED 387 - Practical Assessment in the Elementary Classroom II**

Refine skills in using assessment methodology to enhance teaching. Topics include application of assessment models and analysis of student performance using sound assessment procedures.

**Prerequisites & Notes:** Admission to Woodring College Elementary Teacher Education Outreach Programs; ELED 386.

**Credits:** 2

**Grade Mode:** Letter

### **ELED 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**ELED 401 - Writing Instruction in the Elementary Classroom**

Focus on writing development and processes. Methods for assessment and instruction for writing in the elementary school.

**Prerequisites & Notes:** Admission to Elementary Education Department or instructor permission.

**Credits:** 5

**Grade Mode:** Letter

**ELED 405 - Culturally Relevant Materials for Diverse Learners**

This course focuses on P-12 educators' development of a critical eye when selecting and evaluating culturally relevant materials, including media and technology resources. The course includes a wide reading of culturally relevant resources, guidance in the selection and analysis of such materials, and instruction in how to use them in innovative ways. Correlation to current state and national standards is included.

**Credits:** 4

**Grade Mode:** Letter

**ELED 424 - Language Arts in the Elementary Curriculum**

Functions and programs of language arts in the curriculum including reading, writing, speaking, listening.

**Prerequisites & Notes:** SPED 420

**Credits:** 4

**Grade Mode:** Letter

**ELED 425 - Social Studies for the Elementary School**

Social studies methods, resources, multicultural literature, curriculum, objectives, planning and exposure to contributions of social sciences. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** ELED 370, ELED 481, and SCED 490; or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**ELED 426 - Social Studies Methods**

Social studies methods, resources, multicultural literature, curriculum, objectives, planning and exposure to contributions of social sciences. No practicum experience is included in this course.

**Prerequisites & Notes:** SPED 420

**Credits:** 4

**Grade Mode:** Letter

**ELED 456 - Literacy Assessment**

Explores classroom-based literacy assessment, with a focus on reading, writing, and oral language; includes 20 hour practicum.

**Prerequisites & Notes:** ELED 480 and ELED 481 or permission of instructor. Co-requisite: ELED 486.

**Credits:** 4

**Grade Mode:** Letter

**ELED 464 - Multicultural Education for Teachers**

Preparation for teaching in a multicultural society. Participants will learn how to design a curriculum that reflects diversity and an instructional methodology that promotes the learning of diverse students. Also offered as AMST 464.

**Credits:** 4

**Grade Mode:** Letter

**ELED 470 - Developing Teaching**

Strengthening teaching understandings, skills, and dispositions with an emphasis on learners and learning in classroom contexts, subject matter knowledge and pedagogy, and developing and sustaining a productive and inclusive classroom culture and organization. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** ELED 370, ELED 481, SCED 490; or permission of instructor. For ECE Pre-3 and dual endorsement students: ECE 390 and ECE 391.

**Credits:** 5

**Grade Mode:** Letter

**ELED 471 - Documenting Teaching**

Capstone experience for the preparation of a Teacher Performance Assessment documenting the candidate's ability to design and implement standards-based instruction, assess student learning and reflect on the teaching and learning process. Includes practicum experience in an elementary or middle school classroom and participation in a collegial learning community.

**Prerequisites & Notes:** ELED 470

**Credits:** 5

**Grade Mode:** S/U

**ELED 472 - Developing Teaching Seminar**

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Strengthening teaching understandings, skills, and dispositions with an emphasis on learners and learning in classroom contexts, subject matter knowledge and pedagogy, and developing and sustaining a productive and inclusive classroom culture and organization. Not open to students who have received credit for ELED 470.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 372 and ELED 373; Co-requisite: ELED 473  
**Credits:** 3  
**Grade Mode:** Letter

### **ELED 473 - Developing Teaching - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED 472. Not open to students who have received credit for ELED 470. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 372 and ELED 373; Co-requisite: ELED 472.  
**Credits:** 2  
**Grade Mode:** S/U

### **ELED 474 - Documenting Teaching Seminar**

Capstone experience for the preparation of a final electronic portfolio documenting experiences in learning to teach and the ability to impact elementary student growth and learning. Not open to students who have received credit for ELED 471.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; Completion of ELED 472 and ELED 473; and Co-requisite: ELED 475  
**Credits:** 3  
**Grade Mode:** Letter

### **ELED 475 - Documenting Teaching - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED 474 and participation in a collegial learning community. Not open to students who have received credit for ELED 471. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 472 and 473; Co-requisite: ELED 474.  
**Credits:** 2  
**Grade Mode:** S/U

### **ELED 478 - Literacy: Fluent Communicators Seminar**

Understanding the components and structure of a comprehensive literacy program for addressing

reading, writing, listening, and speaking in the elementary classroom, with a particular focus on developing and supporting fluent communicators. Not open to students who have received credit for ELED 481.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 380; Co-requisite: ELED 479.  
**Credits:** 4  
**Grade Mode:** Letter

### **ELED 479 - Literacy: Fluent Communicators - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED 478. Not open to students who have received credit for ELED 481. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College Elementary Teacher Outreach Programs; ELED 380. Co-requisite: ELED 478.  
**Credits:** 2  
**Grade Mode:** S/U

### **ELED 480 - Literacy: Beginning Communicators**

Application of theoretical and research-based concepts of literacy. Teaching and learning of emergent/beginning communicators in a pluralistic society. Includes practicum experiences in an elementary school.

**Prerequisites & Notes:** ENG 370, LING 201 or ELL 432 (or other linguistics course by approval) for ELED and ECE Dual Endorsement students; ELED 370 or ECE 391 for ECE majors; SPED 420 or ECE 391 for ECSE majors.  
**Credits:** 5  
**Grade Mode:** Letter

### **ELED 481 - Literacy: Fluent Communicators**

Understanding the components and structure of a comprehensive literacy program for addressing reading, writing, listening, and speaking in the elementary classroom, with a particular focus on developing and supporting fluent communicators. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** ELED 480  
**Credits:** 5  
**Grade Mode:** Letter

### **ELED 483 - Literacy Workshop: Reading, Writing, and Language Learners**

Students will deepen and apply knowledge of literacy learning by developing and teaching

theoretically-sound and research-based instructional strategies and units of study appropriate for a multilingual "mainstream" learning environment.

**Prerequisites & Notes:** ELED 480 and ELL 434; Co-requisite ELL 435 or permission of instructor.

**Credits:** 2

**Grade Mode:** Letter

**ELED 486 - Literacy Difficulties in the K-12 Classroom**

Analysis, correction and prevention of literacy difficulties in K-12 classrooms; refinement of group and informal assessment; supervised practicum with pupils having mild difficulties in reading, writing, and/or oral language.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

**ELED 490 - Teaching Laboratory**

Diagnosis of students, lesson preparation, videotaped peer teaching, analysis of teaching, lesson redesign. Repeatable up to 8 credits, including original course.

**Prerequisites & Notes:** ELED 472 or ELED 470.

**Credits:** 1-4

**Grade Mode:** S/U

**ELED 490A - September Experience**

Observation and participation in the opening of school. S/U grading.

**Prerequisites & Notes:** department permission

**Credits:** 2 TO 3

**Grade Mode:** S/U

**ELED 491 - September Experience**

Observation and participation in the opening of school. S/U grading.

**Prerequisites & Notes:** Department permission.

**Credits:** 2

**Grade Mode:** S/U

**ELED 492 - Practicum: Experience in Literacy Methods**

In-school experience observing and teaching reading and language arts. S/U grading.

**Prerequisites & Notes:** ELED 480 and 481.

**Credits:** 4

**Grade Mode:** S/U

**ELED 494 - Internship - Elementary**

Supervised teaching experience to develop and demonstrate teaching competence at the primary and/or intermediate grades. Repeatable to 32 credits. S/U grading.

**Prerequisites & Notes:** Admission to a Woodring Teacher Education Program and permission of department.

**Credits:** 2-16

**Grade Mode:** S/U

**ELED 496 - Elementary Intern Study Group**

Support school internship experience and students' efforts to engage in ambitious teaching practices that support diverse learners.

**Prerequisites & Notes:** ELED 470

**Credits:** 1-2

**Grade Mode:** S/U

**ELED 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**ELED 505 - Books and Materials: Use and Evaluation**

Study and selection of children's and adolescent literature (fiction and poetry). Literary criticism. Use of various media.

**Prerequisites & Notes:** ELED 405 or permission

**Credits:** 4

**Grade Mode:** Letter

**ELED 518 - Current Issues in Education**

Examination and discussion of several current issues in Elementary Education. Repeatable to a maximum of 5 credits.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 1-5

**Grade Mode:** Letter

**ELED 521 - Seminar in Elementary Curriculum**

Advanced study of curriculum planning and development, including design, materials and

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problems in curriculum change. Independent research is expected.

**Prerequisites & Notes:** Completion of teaching certification requirement; elementary K-8 teaching endorsement

**Credits:** 4

**Grade Mode:** Letter

### **ELED 530 - Play and the Child**

Examination of the nature and role of play in the cognitive, affective, physical and social development of the child. Attention given to the educative functions of play and implications of those functions for curriculum and instruction.

**Prerequisites & Notes:** graduate standing or teaching experience

**Credits:** 4

**Grade Mode:** Letter

### **ELED 531 - Seminar in Early Childhood Education**

In-depth exploration of programs, theories and significant recent research in early childhood education.

**Prerequisites & Notes:** Permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### **ELED 531A - Advanced Seminar in Early Childhood Education**

Specific problems are drawn from the field and content organized according to student need.

**Prerequisites & Notes:** ELED 531, ELED 596A

**Credits:** 4

**Grade Mode:** Letter

### **ELED 533 - Advanced Seminar in Elementary Education**

Advanced study of individual research topics in elementary education.

**Prerequisites & Notes:** advancement to candidacy

**Credits:** 4

**Grade Mode:** Letter

### **ELED 535 - Research Analysis of Current Issues in Elementary Education**

Examination and analysis of research underlying current issues and problems in elementary education.

**Prerequisites & Notes:** completion of teaching

certification requirement; elementary K-8 teaching endorsement; EDU 501

**Credits:** 4

**Grade Mode:** Letter

### **ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Education**

Examines current theory, research, and practice in classroom-based literacy assessment and evaluation; includes supervised practicum.

**Prerequisites & Notes:** ELED 480 and ELED 481 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **ELED 539 - Master's Seminar**

Preparation and presentation of a seminar paper on a problem or issue in education.

**Prerequisites & Notes:** completion of teaching certification requirements; elementary K-8 endorsement; advancement to candidacy; ELED 501, ELED 521, ELED 535; EDF 512, EDF 513

**Credits:** 4

**Grade Mode:** Letter

### **ELED 555 - Middle School Curriculum Designs and Instructional Strategies**

Current trends in middle-level education; includes a review of developing curriculum ideas endorsed by the National Middle School Association. Physical, social and emotional growth of early adolescents; instructional strategies for middle-level schools; requires topical or action research project.

**Credits:** 4

**Grade Mode:** Letter

### **ELED 569A - Issues in Inclusive Early Education**

Current issues and best practices in early childhood program design and implementation. Emphasis on family-centered, play-based interagency models that serve children of all abilities. Applied research focus.

**Prerequisites & Notes:** admission to graduate school or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **ELED 569B - Assessment of Young Children (Birth-8 Years)**

Issues and resources for accurate and appropriate assessment of young children. Current best



practices in instructionally relevant assessment, monitoring child progress and evaluating overall program success. Alternative strategies for assessing the very young child, family needs and special populations. Emphasis on critical evaluation of instruments, psychometric adequacy and technical aspects of test development.

**Prerequisites & Notes:** admission to graduate school or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **ELED 569C - Inclusive Curriculum in Early Childhood**

Curriculum development and adaptation for infants, toddlers, and preschool children. Includes available resources, best practices with the developmentally young and play-based criteria. Focus on model program curricular approaches, the use of daily routines and parent-child interaction as a context and content for curriculum, and peer-mediated learning strategies. Emphasis on efficacy research and the impact of various curricular models.

**Prerequisites & Notes:** admission to graduate school or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **ELED 583 - Literacy and Children's Literature**

Teaching basic reading skills through the use of children's books; selection and analysis of children's books in order to teach literacy, from beginning or pre-word recognition levels through junior/senior high level.

**Prerequisites & Notes:** teaching experience

**Credits:** 4

**Grade Mode:** Letter

### **ELED 584 - Teaching the Integrated Language Arts**

Teaching activities designed to foster continuing development of literacy, in part, through stressing interrelationships between the various forms of language.

**Prerequisites & Notes:** graduate standing or teaching experience

**Credits:** 4

**Grade Mode:** Letter

### **ELED 585 - Seminar in Literacy Education**

Literacy education research and its application to classroom practices, to individual problems in the teaching of reading, to supervision and

administration of reading programs.

**Prerequisites & Notes:** Permission of instructor

**Credits:** 3-4

**Grade Mode:** Letter

### **ELED 586 - Seminar for Literacy Specialists**

Summary course in the Masters in Literacy, focuses on the role of the future literacy specialist in the analysis, correction, and prevention of literacy difficulties. Designed to refine the teacher leader's knowledge of assessment, evaluation, planning, and teaching of readers, writers, and language users. Includes a 20 hour practicum.

**Prerequisites & Notes:** ELED 518 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **ELED 587 - Improvement of Instruction in Literacy**

Teaching developmental reading; methods, materials, theory.

**Prerequisites & Notes:** minimum of one previous course in teaching of reading or teaching experience

**Credits:** 4

**Grade Mode:** Letter

### **ELED 589 - Language Acquisition and Literacy Development**

Exploration of current theories in language acquisition, linguistics and psycholinguistics, and implications for early childhood education and literacy instruction.

**Prerequisites & Notes:** graduate standing or teaching experience

**Credits:** 4

**Grade Mode:** Letter

### **ELED 594E - Practicum in Reading Diagnosis and Remediation**

Assessment and correction of reading difficulties: supervised practica in use of diagnostic reading tests.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ELED 594F - Practicum in Reading Diagnosis and Remediation**

Remedial instruction of children with reading

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problems: clinical practicum.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **ELED 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 cr. S/U grading

**Prerequisites & Notes:** advancement to candidacy; student's graduate committee approval

**Credits:** 1-9

**Grade Mode:** S/U

### **ELED 691 - Research Seminar**

Graduate research under the direction of a program advisor/committee. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** student's graduate committee/program advisor approval

**Credits:** 1-6

**Grade Mode:** S/U

## **English Language Learners Courses**

### **ELL 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ELL 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers**

Provides a historical, legal, theoretical and policy foundation to understand experiences of Bilingual students in US public schools. Examines sociocultural and equity issues related to the education of language minority students from global to local contexts. Explores theory and research on second language acquisition and learning drawn from sociocultural, linguistic, psychological, neurological, and sociolinguistic traditions that inform current practice. Course presents research on program models and effective school practices with English language learners. Students will become familiar with language development standards across domains of reading, writing, listening and speaking as these interact with content standards across program models and instructional approaches.

**Prerequisites & Notes:** Admission to ELL Endorsement Program or permission of Program Director.

**Credits:** 4

**Grade Mode:** Letter

### **ELL 432 - Introduction to English Linguistics for P-12 Teachers**

Students are introduced to the structure, history and use of English with emphasis on their application to the teaching of P-12 level language learners within the P-12 school system. Includes an outline of basic linguistic aspects of language (phonology, morphology, syntax, semantics, and pragmatics) and their historical, geographical, and social variation. The theory of English grammar, including parts of speech, syntactic structure, coordination, subordination, and discourse patterns will also be covered.

**Prerequisites & Notes:** Permission of program director.

**Credits:** 5

**Grade Mode:** Letter

### **ELL 433 - Understanding Bilingual Learners in a Sociocultural Context**

Provides a foundation for teachers to understand and address the relevant cultural and equity issues that linguistically diverse students face in US public schools. Emphasis is on culturally and linguistically sustaining approaches to instruction, assessment, professional collaboration, and partnerships with families and communities to benefit students. Specific attention is given to culturally relevant teaching, equity pedagogy and differentiated instruction for ELL. Course provides an introduction to assessment from theory to practice for linguistically diverse students. A joint practicum with ELL 434 allows teacher candidates to develop abilities to observe, reflect and employ informal assessments to better understand and support the

learning and development of an English Learner.

**Prerequisites & Notes:** ELL 431 and ELL 432 or permission of instructor; co-requisite: ELL 434.

**Credits:** 4

**Grade Mode:** Letter

#### **ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12**

Theoretical and practical concerns in teaching English as a second language to students with beginning to low-intermediate proficiency in English in P-12 schools. Emphasis on innovative approaches to the teaching of listening, speaking, reading, writing, and culture within a communicative framework. Guidance in the evaluation of students; use of standards; development and use of creative materials, including media-based materials. Required participation in a joint embedded practicum ELL 433 with English language learners with demonstration and practice in instructing students in English, evaluation, development, and use of creative materials, including media-based materials and state requirements.

**Prerequisites & Notes:** ELL 431 and ELL 432 or permission of instructor; co-requisite: ELL 433.

**Credits:** 5

**Grade Mode:** Letter

#### **ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12**

An expansion on theoretical and practical concerns in teaching English as an additional language to students in grades P-12 with intermediate to advanced proficiency in English. Emphasis is on innovative approaches to the teaching of language and literacy within a communicative framework and academic register. Provides guidance in the evaluation, development, and use of creative materials, including media-based materials. Requires participation in an embedded practicum experience with English language learners.

**Prerequisites & Notes:** ELL 434 or permission of Program Director.

**Credits:** 5

**Grade Mode:** Letter

#### **ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers**

Provides a forum for reflection and sharing of the teaching of ELL's in P-12 schools. Includes research-based lesson planning and advocacy, linking to WA state and Federal laws. Provides practice working collaboratively with colleagues and the community. Bilingual option includes supervised bilingual teaching in English and second

language of instruction in P- 12 bilingual program for 5 credits. S/U grading.

**Prerequisites & Notes:** Completion of all required ELL/Bilingual courses. Permission of Program Director.

**Credits:** 4

**Grade Mode:** S/U

#### **ELL 438 - Methods and Programming for P-12 Bilingual Classrooms**

Participants extend their knowledge of second language acquisition, instructional methods, and assessment techniques to effectively teach bilingual models of instruction in P-12 schools. Course content includes further development of the concepts of bilingualism and biculturalism, and leads into a focus on the development and assessment of bi-literacy and content area instruction with culturally and linguistically diverse students. Includes embedded or arranged practicum.

**Prerequisites & Notes:** ELL 435 or permission of Program Director.

**Credits:** 5

**Grade Mode:** Letter

#### **ELL 460 - Sociocultural Theory and Policy Sequence for P-12 Teachers**

This course provides a historical, legal, theoretical and policy foundation to understand experiences of Bilingual students in U.S public schools. We will examine issues related to the education of language minority students from global to local contexts. Students will understand sociocultural and equity issues of schooling for English learners in the U.S. We will explore sociocultural theory, family and community engagement and the laws and policies regarding teaching English to speakers of other languages. The course presents research on program models and effective school practices with culturally and linguistically diverse students. Students will become familiar with language development standards across domains of reading, writing, listening and speaking as these interact with content standards across program models and instructional approaches.

**Prerequisites & Notes:** Admitted to the ESLT program or approval of the ELL Endorsement Program Director. Co-requisite: ELL 561 or ELL 461.

**Credits:** 4

**Grade Mode:** Letter

#### **ELL 461 - Second Language Acquisition and Linguistics for P-12 Teachers**

This course explores the theory and research on

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second language acquisition, drawing from sociocultural, linguistic, psychological, neurological, and sociolinguistic traditions that inform current practice. Experienced teachers reinforce their understanding of the structure, history and use of English with emphasis on their application to the teaching of P-12 level language learners within the P-12 school system. This class includes an outline of basic linguistic aspects of language (phonology, morphology, syntax, semantics, and pragmatics) and their historical, geographical, and social variation. Individual research and course presentations are expected of graduate students.

**Prerequisites & Notes:** Admitted to the ESLT program or approval of the ELL Endorsement program director. Co-requisite: ELL 560 or ELL 460.

**Credits:** 4

**Grade Mode:** Letter

### **ELL 462 - Assessment of Culturally and Linguistically Diverse Learners for P-12 Teachers**

This course provides a foundation for teachers to understand and address the relevant cultural and equity issues that linguistically diverse students face in US public schools. The emphasis is on culturally and linguistically sustaining approaches to instruction, assessment, and professional collaboration. Specific attention is given to culturally relevant teaching, equity pedagogy and differentiated instruction for ELL. The course provides an introduction to assessment from theory to practice for linguistically diverse students. Participating in a case study analysis allows practicing teachers to develop abilities to observe, reflect and employ informal assessments to better understand and support the learning and development of an English learner.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 560 and ELL 561 or ELL 460 and ELL 461. Co-requisite: ELL 563 or ELL 463.

**Credits:** 3

**Grade Mode:** Letter

### **ELL 463 - English Grammar and Academic Language for P-12 Teachers**

Experienced teachers reinforce their understanding of the structure and use of English with emphasis on their application to the teaching of P-12 level language learners within the P-12 school system. The theory of English grammar, including parts of speech, syntactic structure, coordination, subordination, and discourse patterns will also be covered. Students will begin to explore the theory and use of functional linguistics in the classroom to support academic language.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 560 and ELL 561 or ELL 460 and ELL 461. Co-requisite: ELL 562 or ELL 462.

**Credits:** 3

**Grade Mode:** Letter

### **ELL 464 - Methods for Teaching Beginning ELLs for P-12 Teachers**

The course addresses theoretical and practical concerns in teaching English as an additional language to students with beginning to low-intermediate proficiency in English in P-12 schools. Emphasis on innovative approaches to the teaching of listening, speaking, reading, writing, and culture within a communicative framework. Instructor will provide guidance in the evaluation of students; use of standards; development and use of creative materials, including media-based materials. Requires teaching in a classroom with English language learners.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 562 or ELL 462; and ELL 563 or ELL 463.

**Credits:** 6

**Grade Mode:** Letter

### **ELL 465 - Supporting ELLs Across the Content Areas for P-12 Teachers**

An expansion on theoretical and practical concerns in teaching English as an additional language to students in grades P-12 with intermediate to advanced proficiency in English. Emphasis is on innovative approaches to the teaching of language and literacy within a communicative framework and academic register. Provides guidance in the evaluation, development, and use of creative materials, including media-based materials. Requires teaching in a classroom with English language learners.

This course will offer teachers methods and strategies to refine communication abilities across multiple settings while focusing primarily on academic language, literacy and identity development taught through engaging and relevant content. We will build on the techniques introduced in ELL 464/564 but shift the emphasis to elements of academic language; specifically vocabulary, form, function, and fluency of language across domains of reading, writing, listening and speaking.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 564 or ELL 464.

**Credits:** 6

**Grade Mode:** Letter

### **ELL 466 - Capstone for the ESLT Program**

The Capstone Project provides the opportunity for students to take what they have learned throughout the endorsement program and apply it to examine a specific outcome. Students will be informed of the project expectations during their first course. As the program gets underway, students will choose to extend one or more course assignments (including but not limited to case studies, community asset mapping, family engagement projects, legal rights brochures, and SIOP lesson plans) and transform them into their capstone project. S/U grading.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 565 or ELL 465.

**Credits:** 1

**Grade Mode:** S/U

### **ELL 531 - Second Language Acquisition Theory and ELL Policy for K-12 Teachers**

This course provides a historical, legal, theoretical and policy foundation to understand experiences of Bilingual students in U.S. public schools. We will examine issues related to the education of language minority students from global to local contexts. Students will understand sociocultural and equity issues of schooling for English learners in the US. We will explore theory and research on second language acquisition and learning drawn from sociocultural, linguistic, psychological, neurological, and sociolinguistic traditions that inform current practice. The course presents research on program models and effective school practices with English language learners. Students will become familiar with language development standards across domains of reading, writing, listening and speaking as these interact with content standards across program models and instructional approaches. This is a 500 level course so you will have extra assignments and readings as compared to peers in ELL 431.

**Prerequisites & Notes:** Admission to the ELL Endorsement program or approval by the director.

**Credits:** 4

**Grade Mode:** Letter

### **ELL 532 - English Linguistics for P-12 Teachers of English Language Learners**

Experienced teachers reinforce their understanding of the structure, history and use of English with emphasis on their application to the teaching of P-12 level language learners within the P-12 school system. Includes an outline of basic linguistic aspects of language (phonology, morphology, syntax, semantics, and pragmatics) and their historical, geographical, and social variation. The theory of English grammar, including parts of speech, syntactic structure, coordination, subordination, and discourse patterns will also be

covered. Individual research and course presentation are expected of graduate students.

**Prerequisites & Notes:** Graduate status in WCE or permission of instructor

**Credits:** 5

**Grade Mode:** Letter

### **ELL 533 - Understanding Bilingual Learners in a Socio-Cultural Context and Assessment**

This course provides a foundation for teachers to understand and address the relevant cultural and equity issues that linguistically diverse students face in U.S. public schools. The emphasis is on culturally and linguistically sustaining approaches to instruction, assessment, professional collaboration, and partnerships with families and communities to benefit students. Specific attention is given to culturally relevant teaching, equity pedagogy and differentiated instruction for ELL. The course provides an introduction to assessment from theory to practice for linguistically diverse students. A service learning experience allows teacher candidates to develop abilities to observe, reflect and employ informal assessments to better understand and support the learning and development of an English learner. This is a 500 level course so you will have extra assignments and readings as compared to peers in ELL 433.

**Prerequisites & Notes:** ELL 431 or ELL 531; ELL 432 or ELL 532. Co-requisite: ELL 434 or ELL 534.

**Credits:** 4

**Grade Mode:** Letter

### **ELL 534 - Instructional Methods for Teachers of P-12 Early English Language Learners**

Theoretical and practical concerns for P-12 master educators in teaching English as a second language to students with beginning to low-intermediate proficiency in English in P-12 schools. Emphasis on innovative approaches to the teaching of listening, speaking, reading, writing, and culture within a communicative framework. Guidance in the evaluation of students; use of standards; development and use of creative materials, including media-based materials. Required participation in a practicum with English language learners with demonstration and practice in English evaluation, development, and use of creative materials, including media-based materials and state requirements.

**Prerequisites & Notes:** Graduate status in WCE or permission of instructor

**Credits:** 5

**Grade Mode:** Letter

### **ELL 535 - Instructional Methods for Academic Language Proficiency in Grades P-12**

## ELEMENTARY EDUCATION

An expansion on theoretical and practical concerns for P-12 master educators in teaching English as an additional language to students in grades P-12 with intermediate to advanced proficiency in English. Emphasis is on innovative approaches to the teaching of language and literacy within a communicative framework and academic register. Provides guidance in the evaluation, development, and use of creative materials, including media-based materials. Requires participation in an embedded practicum experience with English language learners or reflection of teaching in their own classroom. This course will offer teachers methods and strategies to refine communication abilities across multiple settings while focusing primarily on academic language, literacy and identity development taught through engaging and relevant content. We will build on the techniques introduced in ELL 534 but shift the emphasis to elements of academic language; specifically vocabulary, form, function, and fluency of language across domains of reading, writing, listening and speaking.

**Prerequisites & Notes:** ELL 534 or ELL 434 or permission of the program director.

**Credits:** 5

**Grade Mode:** Letter

### **ELL 536 - Seminar and Practicum for ELL Endorsement for P-12 Teachers**

ELL 536 provides a forum for reflection and sharing of the teaching of ELLs in P-12 schools. In this course, students will have the opportunity to practice research-based lesson planning and delivery, to advocate for ELLs using state and federal laws, and to work collaboratively with colleagues and community. Bilingual option for this course includes supervised bilingual teaching in English and second language of instruction in P- 12 bilingual program for 5 credits. S/U grading.

**Prerequisites & Notes:** ELL 431 or ELL 531; ELL 432 or ELL 532; ELL 433 or ELL 533; ELL 434 or ELL 534; ELL 435 or ELL 535 or ELED 481.

**Credits:** 4

**Grade Mode:** S/U

### **ELL 560 - Sociocultural Theory and Policy Sequence for P-12 Teachers**

This course provides a historical, legal, theoretical and policy foundation to understand experiences of Bilingual students in U.S. public schools. We will examine issues related to the education of language minority students from global to local contexts. Students will understand sociocultural and equity issues of schooling for English learners in the U.S. We will explore sociocultural theory, family and community engagement and the laws and policies regarding teaching English to speakers

of other languages. The course presents research on program models and effective school practices with culturally and linguistically diverse students. Students will become familiar with language development standards across domains of reading, writing, listening and speaking as these interact with content standards across program models and instructional approaches.

**Prerequisites & Notes:** Admitted to the ESLT program or approval of the ELL Endorsement Program Director. Co-requisite: ELL 561 or ELL 461.

**Credits:** 4

**Grade Mode:** Letter

### **ELL 561 - Second Language Acquisition and Linguistics for P-12 Teachers**

This course explores the theory and research on second language acquisition, drawing from sociocultural, linguistic, psychological, neurological, and sociolinguistic traditions that inform current practice. Experienced teachers reinforce their understanding of the structure, history and use of English with emphasis on their application to the teaching of P-12 level language learners within the P-12 school system. This class includes an outline of basic linguistic aspects of language (phonology, morphology, syntax, semantics, and pragmatics) and their historical, geographical, and social variation. Individual research and course presentations are expected of graduate students.

**Prerequisites & Notes:** Admitted to the ESLT program or approval of the ELL Endorsement program director. Co-requisite: ELL 560 or ELL 460.

**Credits:** 4

**Grade Mode:** Letter

### **ELL 562 - Assessment of Culturally and Linguistically Diverse Learners for P-12 Teachers**

This course provides a foundation for teachers to understand and address the relevant cultural and equity issues that linguistically diverse students face in U.S. public schools. The emphasis is on culturally and linguistically sustaining approaches to instruction, assessment, and professional collaboration. Specific attention is given to culturally relevant teaching, equity pedagogy and differentiated instruction for ELL. The course provides an introduction to assessment from theory to practice for linguistically diverse students. Participating in a case study analysis allows practicing teachers to develop abilities to observe, reflect and employ informal assessments to better understand and support the learning and development of an English learner.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 560 or ELL 460; and ELL 561 or ELL 461. Co-requisite: ELL 563 or ELL 463.

**Credits:** 3

**Grade Mode:** Letter

### **ELL 563 - English Grammar and Academic Language for P-12 Teachers**

Experienced teachers reinforce their understanding of the structure and use of English with emphasis on their application to the teaching of P-12 level language learners within the P-12 school system. The theory of English grammar, including parts of speech, syntactic structure, coordination, subordination, and discourse patterns will also be covered. Students will begin to explore the theory and use of functional linguistics in the classroom to support academic language.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 560 or ELL 460; and ELL 561 or ELL 461. Co-requisite: ELL 562 or ELL 462.

**Credits:** 3

**Grade Mode:** Letter

### **ELL 564 - Methods for Teaching Beginning ELLs for P-12 Teachers**

The course addresses theoretical and practical concerns in teaching English as an additional language to students with beginning to low-intermediate proficiency in English in P-12 schools. Emphasis on innovative approaches to the teaching of listening, speaking, reading, writing, and culture within a communicative framework. Instructor will provide guidance in the evaluation of students; use of standards; development and use of creative materials, including media-based materials. Requires teaching in a classroom with English language learners.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 562 or ELL 462; and ELL 563 or ELL 463.

**Credits:** 6

**Grade Mode:** Letter

### **ELL 565 - Supporting ELLs Across the Content Areas for P-12 Teachers**

An expansion on theoretical and practical concerns in teaching English as an additional language to students in grades P-12 with intermediate to advanced proficiency in English. Emphasis is on innovative approaches to the teaching of language and literacy within a communicative framework and academic register. Provides guidance in the evaluation, development, and use of creative materials, including media-based materials. Requires teaching in a classroom with English language learners. This course will offer teachers

methods and strategies to refine communication abilities across multiple settings while focusing primarily on academic language, literacy and identity development taught through engaging and relevant content. We will build on the techniques introduced in ELL 464/564 but shift the emphasis to elements of academic language; specifically vocabulary, form, function, and fluency of language across domains of reading, writing, listening and speaking.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 564 or ELL 464.

**Credits:** 6

**Grade Mode:** Letter

### **ELL 566 - Capstone for the ESLT Program**

The Capstone Project provides the opportunity for students to take what they have learned throughout the endorsement program and apply it to examine a specific outcome. Students will be informed of the project expectations during their first course. As the program gets underway, students will choose to extend one or more course assignments (including but not limited to case studies, community asset mapping, family engagement projects, legal rights brochures, and SIOP lesson plans) and transform them into their capstone project. S/U grading.

**Prerequisites & Notes:** Admitted to the ESLT program; ELL 565 or ELL 465.

**Credits:** 1

**Grade Mode:** S/U

## **Instructional Technology Courses**

### **I T 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **I T 344 - Foundations of Technology in Teaching and Learning**

Students use critical thinking skills and apply digital tools to gather, evaluate, and use information. S/U grading.

## ELEMENTARY EDUCATION

**Credits:** 1

**Grade Mode:** S/U

### **I T 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **I T 442 - Digital Decisions: Technology for Educators**

Examines theoretical perspectives of technology integration, digital citizenship, skills for professional learning, and tools to engage and inspire all learners.

**Prerequisites & Notes:** IT 344

**Credits:** 3

**Grade Mode:** Letter

### **I T 443 - Digital Decisions: Technology for Educators**

Examines theoretical perspectives of technology integration, digital citizenship, skills for professional learning, and tools to engage and inspire all learners. Successful completion satisfies the Woodring College of Education instructional technology education competency requirement.

**Prerequisites & Notes:** IT 344

**Credits:** 3

**Grade Mode:** Letter

### **I T 444 - Classroom Use of Instructional Technology (Secondary)**

Learn and improve skills necessary to effectively integrate technology for teaching and learning into professional teaching practices, including planning, assessment, and classroom management. Lab course tied to practicum experience.

**Prerequisites & Notes:** IT 344.

**Credits:** 2

**Grade Mode:** Letter

### **I T 458 - Instructional Design**

Introduction to the process of instructional design. Topics include task analysis, competency specification, instructional strategies, media selection, user interface, rapid prototyping, formative evaluation and project management.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 459 - Distance Education: Theory and Practice**

Examines the concepts, technologies and issues related to the design, development, delivery, policy-making and evaluation of distance education courses and programs. Course includes online learning environment development.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; IT 458; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 461 - Multimedia Tools and Applications**

An overview of the tools required for the creation of interactive multimedia. The tools are organized into three categories: authoring systems, hypermedia authoring environments, and media production (such as graphics production, video and sound).

**Prerequisites & Notes:** IT 442, IT 443, IT 444; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 463 - Techniques and Tools in Graphic Design**

Principle, techniques and tools used in the creation and manipulation of digital graphic elements and products. Topics include elements of design and photography, application of artistic concepts, issues related to graphic representation, and modes of delivery with an emphasis on web-based development.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; IT 458 and IT 459; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 465 - Development of Web-Based Learning Environments**

Design and develop web-based instruction and materials; study various forms of web-based instruction with emphasis on online learning technologies. Integrates appropriate methods, curricular resources, assessments, and Internet delivery systems.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; IT 458 and IT 459; or permission of



instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 466 - Authoring for Multimedia Development**

Techniques and procedures for authoring when developing multimedia. Scripting required in implementation of concepts.

**Prerequisites & Notes:** IT 461 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 467 - Creating Modules for Electronic Delivery**

Design and develop technology-enhanced interactive learning objects for teaching and training. Focus on using multimedia and instructional design for online learning. Students explore concepts and findings identified in the multimedia and distance educational literature.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; IT 458 and IT 459; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 468 - Interactive Multimedia Systems**

An introductory study of interactive multimedia systems. Includes videodiscs, computer interfacing, CD ROM and multimedia authoring software.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 470 - The Internet in Education**

Studies the use of the Internet and the World Wide Web in educational settings, including strategies for effective student and teacher use. Topics include e-mail, Web browsing, videoconferencing, implementation, ethics and issues. Examines alternatives in web development.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be

arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **I T 503 - Designing Instruction and Selecting Technologies for Learning**

Systematic analysis, design, development and evaluation of instructional practices. Class discussions and projects apply instructional design principles in P-12 classrooms and emphasize the appropriate integration of technologies at relevant stages of the learning process.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; EDAD 501; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 515 - Emerging Technologies and New Literacies**

This course focuses on emerging technologies and new, multimodal literacies. This course will provide students with theoretical and practical knowledge of new literacies with an emphasis on how these new literacies can be employed at the P-12 level. Students will work individually and collectively in a participatory culture to apply their theoretical understandings to practical experiences by way of producing media. Students will also do original research into emerging technologies and literacies, publishing their findings online.

**Prerequisites & Notes:** Graduate Status or permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### **I T 518 - Current Issues in Education**

Examination and discussion of several current and controversial issues in education. Repeatable with no maximum.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 1-5

**Grade Mode:** Letter

### **I T 544 - Instructional Technology and Education**

A study in the use of technological tools for instruction; for teaching, training, and student learning; for presentation and development; and

## ELEMENTARY EDUCATION

for administration and management. Incorporates distance delivery procedures and effective planning for the use of Instructional Technology. Satisfies the Woodring College of Education instructional technology and education competency requirement. Emphasis on K-12 education.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 546 - Instructional Technology and Digital Literacy**

A study in the use of technological tools for instruction; for teaching, training, and student learning; for presentation and development; and for administration and management. Incorporates distance delivery procedures and effective planning for the use of instructional technology. Satisfies the Woodring College of Education instructional technology and education competency requirement. Emphasis on the Adult and Higher Education Master's program.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 550 - Technology Leadership: Policies, Planning and Administration**

Problems and principles in establishing and maintaining the use of instructional technologies in educational institutions, including establishing school and district policies for technology, developing budgets, managing resources, maintaining facilities and technology infrastructure.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444, or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 551 - Seminar in Instructional Technology**

Analysis of issues affecting present and future implementations of instructional technology.

**Prerequisites & Notes:** 20 credits in the program; permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 552 - Instructional Design: Strategies**

Survey of strategies for delivering instruction, including large-scale strategies such as cooperative learning, lectures and technology; and

microstrategies such as feedback, advance organizers, teaching procedures and questioning strategies.

**Prerequisites & Notes:** IT 560 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 558 - Distance Education: Theory and Practice**

Examines the concepts, technologies and issues related to the design, development, delivery, policy-making and evaluation of distance education courses and programs. Course includes development of online learning environments.

**Prerequisites & Notes:** I T 546; I T 560 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 560 - Instructional Design**

Introduction to the process of instructional design. Topics include task analysis, competency specification, instructional strategies, media selection, user interface, prototyping, formative evaluation and project management.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 561 - Designing Computer-Based Instruction**

Addresses the design, development and evaluation of computer-based instructional software. Covers the steps in creating an effective CBI lesson, designing effective displays, use of graphics and illustrations, use of color, analyzing questions, learner control, and storyboarding.

**Prerequisites & Notes:** IT 560; IT 566 or IT 567; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 563 - Techniques and Tools in Multimedia Development**

Create digital media (e.g., graphics, video, audio); identify properties, strengths and weaknesses of digital media in different learning contexts; analyze its use in a variety of settings including distance delivery.

**Prerequisites & Notes:** IT 544 or IT 546 or equivalent; IT 558 and IT 560; or permission of

instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 565 - Development of Web-Based Learning Environments**

Design and develop web-based instruction and materials; study of various forms of web-based instruction with emphasis on online learning technologies. Integrates appropriate methods, curricular resources, assessments, and Internet delivery systems.

**Prerequisites & Notes:** IT 544 or 546 or equivalent; IT 558 and IT 560; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 566 - Authoring for Multimedia Development**

Techniques and procedures for authoring when developing multimedia. Scripting required in implementation of concepts.

**Prerequisites & Notes:** IT 461 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 567 - Creating Modules for Electronic Delivery**

Design and develop technology-enhanced interactive learning objects for teaching and training. Focus on using multimedia and instructional design for online learning. Students explore concepts and findings identified in the multimedia and distance education literature.

**Prerequisites & Notes:** IT 544 or IT 546 or equivalent; IT 558 and IT 560; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **I T 568 - Advanced Design of Multimedia Instruction**

Advanced issues in the design and development of interactive multimedia instructional lessons. Covers design issues related to the use of multimedia for instruction and is organized around individual student projects. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** IT 566 or IT 567 or permission of instructor.

**Credits:** 3-6

**Grade Mode:** Letter

### **I T 571 - Implementing Technology-Enhanced Learning Activities**

Implement an instructional plan that integrates appropriate methods, curricular resources, assessments, and technology in a classroom setting; gather data to evaluate the plan's effectiveness. Develop a learning object; do usability testing and analysis. Begin development of an electronic portfolio.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 572 - Advanced Technology Tools and Classroom Applications**

Develop advanced skills in information and communication technologies, assistive technologies, and productive tools. Employ one of these technologies in creating a prototype to be used for research. Develop materials and methods for teaching of software applications.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT 571; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 573 - Emerging Issues: the Social, Ethical, Legal and Human Implications of Technology**

Consideration of a wide range of human and social issues relating to the use of technology, including equitable access, social and cognitive effects of various technologies, appropriateness of technologies for students with diverse learning needs, gender and cultural bias, copyright, and health concerns.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 574 - Educational Technology Research, Evaluation and Assessment**

Research the effectiveness of technology products and processes, selecting appropriate technology tools for assessment, and evaluating learner and program outcomes.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.

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**Credits:** 3

**Grade Mode:** Letter

### **I T 575 - Designing, Implementing and Evaluating Professional Development**

Identify research-based models for professional development, implement them effectively in particular settings, and evaluate participant outcomes. Emphasis on diffusion of innovations and facilitating change.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **I T 640 - Current Topics in Education**

Studies of current topics in learning resources/library science or instructional technology. Repeatable with no maximum.

**Prerequisites & Notes:** Master's degree; permission of instructor.

**Credits:** 1-5

**Grade Mode:** Letter

### **I T 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy; graduate committee approval.

**Credits:** 1-9

**Grade Mode:** S/U

### **I T 691 - Research Seminar**

Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Graduate committee or program advisor approval.

**Credits:** 1-6

**Grade Mode:** S/U

## **Teaching English/Second Language Courses**

### **TESL 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed

Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **TESL 401 - Introduction to English Linguistics for TESOL**

Students are introduced to the structure, history and use of English with emphasis on their application to the teaching of ESL. Includes an outline of basic linguistic aspects of language (phonology, syntax, semantics and pragmatics) and their historical, geographical and social variation.

**Credits:** 4

**Grade Mode:** Letter

### **TESL 403 - Applications of Linguistics to TESOL**

A one-credit version of TESOL 401 for students who have successfully completed an equivalent course in introductory linguistics. S/U grading.

**Prerequisites & Notes:** Permission of program director.

**Credits:** 1

**Grade Mode:** S/U

### **TESL 404 - Understanding English Grammar for TESOL**

Theory of English grammar including parts of speech, syntactic structure, coordination, subordination, and discourse patterns.

**Prerequisites & Notes:** TESL 401 or TESL 403 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **TESL 405 - Methods for Teaching English Grammar**

Demonstration and practice in explaining key structures in English. Creating and teaching lesson plans with explicit English grammar components. Participation in an embedded practicum with English language learners required. Not eligible for students who have taken TESL 402.

**Prerequisites & Notes:** TESL 401 or TESL 403, or permission of instructor; and TESL 404 or ENG 436, or concurrent.

**Credits:** 2

**Grade Mode:** Letter

### **TESL 410 - Second Language Acquisition Theory for TESOL**

The insights of modern linguistic and psychological theory into the process of second language learning, with special reference to the acquisition of English by speakers of other languages. Emphasis on why certain aspects of English structure pose particular difficulty for the non-native speaker.

**Prerequisites & Notes:** Admission to TESOL program or permission of instructor; TESL 401 recommended.

**Credits:** 4

**Grade Mode:** Letter

### TESL 412 - Spanish for Educators

Prepares educators to communicate with Spanish-speaking students and their families through Spanish language study. Guided investigation of Spanish-language academic resources and development of academic language in Spanish in chosen content area to support student learning. Seminar component (in English) undertakes contrastive analysis of the Mexican and US educational systems providing an example of how cultural and socioeconomic factors influence educational opportunities. Repeatable up to 10 credits, including original course.

**Credits:** 5

**Grade Mode:** Letter

### TESL 420 - Methods and Materials for Basic Communication

Theoretical and practical concerns in teaching English as a second language to students with beginning to low-intermediate proficiency in English. Emphasis on innovative approaches to the teaching of listening, speaking, and culture within a communicative framework. Guidance in the evaluation, development, and use of creative materials, including media-based materials. Required participation in embedded practicum with English language learners.

**Prerequisites & Notes:** Admission to TESOL program or permission of instructor; TESL 401 recommended.

**Credits:** 5

**Grade Mode:** Letter

### TESL 421 - Methods and Materials for Academic Language Proficiency

An expansion on theoretical and practical concerns in teaching English as a second language to students with intermediate to advanced proficiency in English. Emphasis on innovative approaches to the teaching of literacy within a communicative framework, with particular focus on structure, reading, writing, and culture in academic content

areas. Guidance in the evaluation of textbooks and the development and use of creative materials, including media-based materials. Required participation in embedded practicum with English language learners.

**Prerequisites & Notes:** TESL 420 or permission of instructor; TESL 401 recommended.

**Credits:** 5

**Grade Mode:** Letter

### TESL 432 - Seminar in TESOL

Provides a forum for reflection and sharing of the diverse practicum teaching experiences of a co-requisite practicum course. Research resolves current classroom needs in classroom management. Provides practice working collaboratively to deliver professional development to colleagues and the community. Repeatable to a maximum of 4 credits, including original course. S/U grading.

**Prerequisites & Notes:** TESL 404; TESL 405; TESL 420; TESL 421; TESL 410 or concurrent; Co-req TESL 435.

**Credits:** 2

**Grade Mode:** S/U

### TESL 435 - Practicum in TESOL

Supervised TESOL practicum teaching English language learners. International placements available.

**Prerequisites & Notes:** TESL 401 or TESL 403; TESL 405; TESL 420; TESL 421 (or permission of instructor); TESL 410 or concurrent; Co-req TESL 432 (or permission of instructor).

**Credits:** 2-3

**Grade Mode:** S/U

# Health and Community Studies

## Introduction

The Department of Health and Community Studies is comprised of two undergraduate (B.A. and B.S.) programs: a Human Services Bachelor of Arts and an RN to Bachelor of Science in Nursing (RN-to-BSN); and two graduate programs; a Master of Education in Adult and Higher Education (M.Ed.) and Master of Arts in Rehabilitation Counseling (M.A.). Each program is committed to an academic learning experience that integrates theory and practice using a strengths-based model of professional practice and a shared commitment to equity and social justice. For more information on these programs, please visit [www.wvu.edu/hcs](http://www.wvu.edu/hcs).

## Faculty

**RAINE DOZIER** (2008) Chair and Associate Professor. BA State University of New York; MA, PhD, University of Washington.

**JACQUELYN BAKER SENNETT** (2000) Professor. AB, Occidental College; PhD, Cornell University.

**ANNE BLANCHARD** (1997) Senior Instructor. BA, MEd Western Washington University; PhD, University of Washington.

**ELIZABETH BOLAND** (2004) Professor. Academic Program Director of Rehabilitation Counseling. BBA, University of Wisconsin-Whitewater; MS, PhD, University of Wisconsin-Madison.

**SAMIT BORDOLOI** (2013) Assistant Professor. BA, Hindu College; MSW, Tata Institute of Social Sciences; MS, Kansas State University; PhD, University of Connecticut.

**DANA BRICKHAM** (2014) Assistant Professor and RC Clinical Coordinator. BA, University of Wisconsin - Oshkosh; MS, PhD, University of Wisconsin - Madison.

**DEVYANI CHANDRAN** (2014) Assistant Professor. BA, Lady Shri Ram College; MSW, Tata Institute of Social Sciences; PhD, University of Kansas.

**HOPE CORBIN** (2013) Assistant Professor. BA, State University of New York at Plattsburgh; MPhil, PhD, University of Bergen.

**SONDRA CUBAN** (2013) Professor. Academic Program Director of Adult and Higher Education. BA, Sonoma State University; MILS, University of Hawaii-Manoa; PhD, University of Wisconsin-Madison.

**STANFORD GOTO** (2004) Associate Professor. BA, MA, PhD, University of California-Berkeley.

**JOHN KORSMO** (2006) Associate Professor. BA, Portland State University; MS, PhD, University of Wisconsin-Milwaukee.

**KATHE MATRONE** (2004) Senior Instructor. BA, Idaho State University; MS, Utah State University;

PhD, Michigan State University.

**JILL MOUNT** (2012) Assistant Professor. BA, Earlham College; BSN, University of San Francisco; MSN, University of North Carolina; PhD, University of Washington.

**TRULA NICHOLAS** (1994) Associate Professor. BA, MS, Western Washington University; EdD, Nova Southeastern University.

## Human Services

[www.wvu.edu/hs](http://www.wvu.edu/hs)

The Human Services major (B.A.) attracts students with a strong commitment to social and economic justice, human dignity, self-determination, and the desire to affect change through direct and indirect service delivery. Since the program's inception in the mid 1970s, Western has graduated thousands of human services majors who have committed their careers to the helping professions. Graduates work in a variety of settings as case managers, advocates, grant writers, youth workers, volunteer coordinators, human resource specialists, fundraisers, trainers, para-educators or advocacy specialists for victims of child abuse, domestic violence, homelessness, or other social issues. Many graduates pursue advanced study in social work, education, public policy, law, nonprofit management or counseling.

## Course of Study

The faculty is committed to the idea that undergraduate preparation in human services requires both a strong academic foundation and a solid experiential base. Students who are enrolled in the major become members of an interdisciplinary and inter-professional community of learners who engage in classroom and field-based inquiry with WWU faculty, practicing professionals, and community members.

The Human Services curriculum is designed to meet National Standards in Human Services education as outlined by the Council for Standards in Human Services Education ([www.cshse.org](http://www.cshse.org)). The major provides students with an opportunity to build a deep understanding of the human services profession within dynamic and collaborative learning environments. Built on a liberal arts foundation, the core of the curriculum examines the profession within the context of self, individuals and small groups, organizations, communities, and global systems. Additionally, students gain knowledge and experience in interviewing and interventions, human development, diversity and social justice, applied research, agency management, and program planning and evaluation. Partnering with community based human services agencies and organizations, the major incorporates several quarters of field study, including three supervised

internships, that integrates theory, knowledge, and skills with professional practice. Together, classroom and field-based study prepares graduates to confront the challenges of the 21st century. For additional information visit: [www.wvu.edu/hs](http://www.wvu.edu/hs).

### Declaration Process

Human Services program applicants must have a 2.75 GPA or higher overall in college level work (with some exceptions as noted below) and must submit the following materials to be considered for admission to the major:

- A completed Human Services program application, including required essays
- A completed self-assessment of essential functions
- A criminal history background check, which may also include fingerprinting
- A signed contract indicating an understanding and intention to comply with the program's expectations for academic and professional performance

Interviews may be required for admission to the program. Prospective students are encouraged to seek information online at [www.wvu.edu/hs](http://www.wvu.edu/hs) or in Miller Hall 318, 360-650-7759, prior to submitting an application. Please contact the program for application deadlines. Students with a Washington state transferable Associate of Arts degree must apply to both Western and the major.

### Provisional Program Acceptance and Admission Exceptions

Human Services applicants with a cumulative GPA below 2.75 may contact the department to discuss possible exceptions. A personal interview may be required.

Additionally, applicants who expect to be within 10 credits of completing Western's GURs or within 5 credits of receiving a Direct Transfer Agreement (DTA) Associate Degree from a Washington state community college at the time they begin taking Human Services classes are eligible to apply to the major. Contact the department for details.

A minor in Human Services is not available. Non-matriculated students, undeclared majors, and/or students from other majors at Western are able to enroll in electives and some required courses on a space available basis, with permission of the department.

### Technology Competency and Access

Many courses in the major have an online learning component. Therefore, students admitted to the

Human Services major are expected to maintain regular internet access and possess competence in the use of word processing, spreadsheet, and database applications.

### Program Offerings and Tuition

The Human Services major is offered in Bellingham, Everett, and via distance delivery (with staff and advising support available in Bellingham, Everett, and Bremerton). Some courses in Bellingham and Everett are hybrid, combining both face-to-face and online class sessions. Students enrolling in the Distance program are able to take all courses online.

### Program Retention and Completion

Retention in the Human Services program is dependent upon each student's ability to meet university requirements and the program's essential functions and expectations for academic and professional performance. Prior to entering an internship placement, all students are required to successfully complete HSP 340 and a benchmark examination.

### Questions

For additional information on the Human Services major, see [www.wvu.edu/hs](http://www.wvu.edu/hs), call 360-650-7759, or e-mail [hsp.info@wvu.edu](mailto:hsp.info@wvu.edu).

### Nursing

[www.wvu.edu/bsn](http://www.wvu.edu/bsn)

The Nursing BSN (RN-to-BSN) degree is a BSN completion program that includes 45 upper division credits to be completed at WWU. As an exclusively transfer degree at this time, it builds on and provides credit for previous GUR and nursing credits completed in an Associate Degree pre-licensure program along with WWU credits.

The RN-to-BSN program is specifically designed for nurses who have completed an Associate's or Diploma nursing program, currently have their RN licensure or are eligible to take the NCLEX-RN exam.

This innovative program of study will prepare nurses with the professional competencies necessary for the increasing complexities of healthcare. It has been guided by national standards for nursing as well as the WWU Student Learning Objectives:

1. AACN Essentials of Baccalaureate Education for Professional Nursing Practice (2008)  
[www.aacn.nche.edu/education-resources/essential-series](http://www.aacn.nche.edu/education-resources/essential-series)

## HEALTH AND COMMUNITY STUDIES

2. Quality and Safety Education in Nursing (QSEN) Competencies  
[www.qsen.org](http://www.qsen.org)
3. QUAD Council Competencies for Public Health Nursing  
[quadcouncilphn.org/](http://quadcouncilphn.org/)
4. WWU General Education Requirements: Student Learning Objectives:  
[www.wvu.edu/vpue/gened/index.shtml](http://www.wvu.edu/vpue/gened/index.shtml)

WWU RN-to-BSN Program will prepare graduates to:

- Assimilate theories and concepts learned through the sciences and humanities into professional nursing practice.
- Access, appraise and synthesize credibility of varied sources of evidence to inform clinical judgment and organizational decision-making for optimal healthcare delivery.
- Promote a culture of evidence-based practice by integrating clinical expertise and diverse perspectives that support patient-centered care and optimal health outcomes.
- Advocate for access to and delivery of equitable health care services with an understanding of the influences of individual, socio-cultural, legal and policy factors.
- Apply principles of leadership, systems theory, quality improvement, and interdisciplinary communication to promote patient safety and quality care in a variety of settings.
- Advocate for and practice health promotion and disease prevention strategies to enhance the well-being of individuals, families, communities and populations.
- Coordinate the delivery of healthcare services through effective professional communication, patient care technology, and interdisciplinary collaboration.
- Provide BSN generalist care within the context of evolving professional standards and a commitment to life-long learning.

### Admission Expectations

RN-to-BSN applicants with a GPA below 2.75 may contact the program to discuss the admissions

## Bachelor of Arts

### Human Services, BA

Department of Health and Community Studies, Woodring College of Education

exceptions policy. A personal interview will be required.

### Technology Competency and Access

Many courses in the major have an online learning component. Therefore, students admitted to the Department of Health and Community Studies are expected to maintain regular internet access and possess competence in the use of word processing, spreadsheet and database applications.

### Adult and Higher Education

[wce.wvu.edu/ahe/adult-and-higher-education](http://wce.wvu.edu/ahe/adult-and-higher-education)

The Adult and Higher Education program is designed to prepare both entry-level and advanced practitioners as teachers, trainers, educators and administrators, particularly in community college and continuing education settings. Upon graduation, competence is expected in such areas as leadership, program development, instructional technology, teaching, research, policy making, curriculum development, assessment and program planning.

The program office is located in Miller Hall 417B, phone: 360-650-3190, email: [ahe.info@wvu.edu](mailto:ahe.info@wvu.edu).

### Rehabilitation Counseling

[www.wvu.edu/rc](http://www.wvu.edu/rc)

The Rehabilitation Counseling program (M.A.) prepares dedicated and qualified rehabilitation counselors who will partner with individuals with disabilities to enhance their lives, including self-determination, independence, meaningful employment, and full community participation. Graduates work in a variety of public and private settings and are eligible to sit for the Certified Rehabilitation Counselor Examination that is required by many organizations. The program includes a combination of delivery modes, with some classes offered at the program's outreach site located at Everett Community College and other courses offered via distance in a web-based format.

The program office is located in 251 Gray Wolf Hall at the Everett University Center, phone: 425-405-1644, email: [rc.everett@wvu.edu](mailto:rc.everett@wvu.edu).



**76 credits****Introduction**

The Human Services Program prepares students to work in a variety of settings as case managers, advocates, grant writers, youth workers, volunteer coordinators, human resource specialists, fundraisers, trainers, para-educators or advocacy specialists for victims of child abuse, domestic violence, homelessness, or other social issues.

The program has a social justice orientation, engaging students in critical analysis and reflection as they examine social issues at the individual, group, organization, community, and global level. The program emphasizes community engagement and requires 380 hours of field experience that allows students to integrate theory, knowledge, and skills through work in human services organizations.

**Why Consider a Human Services Major?**

Are you interested in a career working to enhance the well-being of individuals, families, communities and organizations? Do you learn effectively through student-centered activities that encourage collaborative inquiry and active engagement to address real world challenges? If so, you may want to consider a major in Human Services. The Human Services major attracts students from diverse backgrounds with a strong commitment to social and economic justice, human dignity, self-determination, and the desire to facilitate change. Thousands of Western's Human Services Program graduates are currently working in meaningful positions in nonprofit, government, and community-based services.

Contact Information		
<b>Bellingham Program Contact</b>	<b>Everett Program Contact</b>	<b>Distance-Learning Contact</b>
Miller Hall 318C 360-650-7759 hs.bellingham@wwu.edu	425-405-1640 hs.everett@wwu.edu	360-475-1645 msg: 360-650-7487 hs.distance@wwu.edu

**Sample Careers**

Children, Youth, and Family Services | Veterans Services | Mental Health Services | International Relief | Rehabilitation Counseling & Disability Services | Corrections & Law Enforcement | Community Development & Organizing | Faith-Based Services | Non-profit Management | Community-based Sports and Recreation | Alternative Education Housing | Food Securities

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Applicants to Human Services must have a cumulative GPA of 2.75 or higher (with some exceptions as noted below) and must submit the following materials to be considered for admission to the major:

- A completed Human Services program application, including required essay
- A completed self-assessment of essential functions
- A criminal history background check, which may also include fingerprinting
- A signed contract indicating an understanding and intention to comply with the program's expectations for academic and professional performance

Interviews may be required for admission to the program. Prospective students are encouraged to seek information online at [wce.wwu.edu/hs/human-services](http://wce.wwu.edu/hs/human-services) or in Miller Hall 318, 360-650-7759, prior to submitting an application. Please contact the program for application deadlines. Students with a transferable Associate of Arts degree from an accredited institution in Washington State must apply both to Western and the major.

**Admission Expectations**

Applicants to the major in Human Services with a GPA below 2.75 may contact the department to discuss the admissions exceptions policy. A personal interview may be required.

## HEALTH AND COMMUNITY STUDIES

Applicants must be within 10 credits of completing Western's GURs or be within 5 credits of completing a direct transfer degree (AA) from a Washington state community college by the start of program classes, or have completed their direct transfer degree (AA) from a Washington state community college.

A minor in Human Services is not available. Non-matriculated students, undeclared majors, and/or students from other majors at Western are able to enroll in some courses on a space available basis, with permission of the department.

### Technology Competency and Access

Many courses in the major have an online learning component, or require use of technology. Therefore, students admitted to the Department of Health and Community Studies are expected to maintain regular high speed internet access and possess competence in the use of word processing and database applications.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ❑ Required Systems Courses (20 credits):
  - HSP 301 - Human Services Professionals and Personal Systems
  - HSP 303 - Interpersonal and Small Group Systems
  - HSP 402 - Inequity in U.S. Policy and Institutions: Implications for Human Services Professionals
  - HSP 404 - Human Services Professionals and Community Systems
  - HSP 406 - Human Services Professionals and Global Systems
- ❑ Other required courses (28 credits):
  - HSP 302 - Introduction to Human Services
  - HSP 315 - Human Development and Human Services
  - HSP 325 - Interviewing and Interventions for Human Services
  - HSP 385 - Applied Research Methods
  - HSP 435 - Human Services and Management
  - HSP 455 - Diversity & Social Justice Dynamics
  - HSP 485 - Program Planning and Evaluation
- ❑ Field study (16 credits):
  - HSP 340 - Introduction to Field Studies
  - HSP 440 - Internship and Seminar (12 credits required; repeatable to 16 credits)  
Students spend 12 hours per week gaining professional experience in an approved human services setting.
- ❑ Electives in Human Services (12 credits required)
  - HSP 323 - Conflict Resolution in Human Services
  - HSP 331 - Children, Families, and Communities
  - HSP 356 - Narrative in Human Services
  - HSP 371 - Issues and Concepts in Human Services
  - HSP 410 - Mental Health: Individuals and Systems
  - HSP 430 - Readings and Projects in Human Services
  - HSP 443 - Disability: Individuals and Systems
  - HSP 450 - Survey of Addictions and Dependencies
  - HSP 484 - Grant Writing
  - Other electives in Human Services under program advisement.

## Bachelor of Science in Nursing

### Nursing (RN-to-BSN), BSN

Department of Health and Community Studies, Woodring College of Education

**45 credits**

## Introduction

The RN-to-BSN program is specifically designed for nurses who have completed a pre-licensure associate degree or diploma nursing program and currently have their RN licensure or are eligible to take the NCLEX-RN exam.

The innovative program of study will prepare nurses with the professional competencies necessary for the increasing complexities of healthcare. It has been guided by national standards for nursing as well as WWU Student Learning Objectives:

1. AACN Essentials of Baccalaureate Education for Professional Nursing Practice (2008): [www.aacn.nche.edu/education-resources/essential-series](http://www.aacn.nche.edu/education-resources/essential-series)
2. Quality and Safety Education in Nursing (QSEN) Competencies: [www.qsen.org/](http://www.qsen.org/)
3. QUAD Council Competencies for Public Health Nursing: [quadcouncilphn.org](http://quadcouncilphn.org)
4. WWU General Education Requirements: Student Learning Objectives: [www.wvu.edu/vpue/gened/index.shtml](http://www.wvu.edu/vpue/gened/index.shtml)

WWU RN-to-BSN Program will prepare graduates to:

- Assimilate theories and concepts learned through the sciences and humanities into professional nursing practice.
- Access, appraise and synthesize credibility of varied sources of evidence to inform clinical judgment and organizational decision-making for optimal healthcare delivery.
- Promote a culture of evidence-based practice by integrating clinical expertise and diverse perspectives that support patient-centered care and optimal health outcomes.
- Advocate for access to and delivery of equitable health care services with an understanding of the influences of individual, socio-cultural, legal and policy factors.
- Apply principles of leadership, systems theory, quality improvement, and interdisciplinary communication to promote patient safety and quality care in a variety of settings.
- Advocate for and practice health promotion and disease prevention strategies to enhance the well-being of individuals, families, communities and populations.
- Coordinate the delivery of healthcare services through effective professional communication, patient care technology, and interdisciplinary collaboration.
- Provide BSN generalist care within the context of evolving professional standards and a commitment to life-long learning.

### Contact Information

Carola Williams  
 RN-to-BSN Program Coordinator  
 Miller Hall 415A  
 360-650-6700  
[bsn.info@wwu.edu](mailto:bsn.info@wwu.edu) or  
[carola.williams@wwu.edu](mailto:carola.williams@wwu.edu)

### Sample Careers

Community Health Nursing | Public Health Nursing | Outpatient Clinic Services | Leadership and Management | Pathway to graduate programs including Nurse Practitioner

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)  
[www.wvu.edu/bsn](http://www.wvu.edu/bsn)

## How to Declare (Admission and Declaration Process):

### Admission requirements

- Associate degree (A.D.N.) or diploma in nursing
- Completion of at least 90 transferrable quarter-system credits including the following nursing pre-requisite courses:
  - English Composition (5 credits)
  - Chemistry with lab (5 credits)
  - Anatomy & Physiology with lab (10 credits)
  - Microbiology (5 credits)

## HEALTH AND COMMUNITY STUDIES

- Introduction to Psychology (5 credits)
- Life span psychology (5 credits)
- Statistics (5 credits)
- Humanities electives (5-10 credits)
- Applicants must show evidence of good academic standing with a grade of 2.0 or higher for each RN-to-BSN program prerequisite and a cumulative GPA of 2.75 or higher.
- Successful completion of NCLEX-RN examination: [hwww.ncsbn.org/nclex.htm](http://www.ncsbn.org/nclex.htm).  
NOTE: Pre-licensure nursing students may apply if graduating before the RN-to-BSN program start date. New graduates may be offered provisional admission pending successful NCLEX examination and RN licensure. Successful completion of the NCLEX examination provides 30 upper-division credits and 15 lower-division elective credits awarded towards the BSN degree.
- Verification of current licensure to practice as a registered nurse in Washington State.  
NOTE: Applicants licensed in other U.S. states or in other countries will need to visit the Washington State Nursing Care Quality Assurance Commission (NCQAC) website for information on how to become licensed in Washington State:  
[www.doh.wa.gov/AboutUs/ProgramsandServices/HealthSystemsQualityAssurance/Nursing](http://www.doh.wa.gov/AboutUs/ProgramsandServices/HealthSystemsQualityAssurance/Nursing)

### Application process

Consideration for program acceptance will be given to applicants submitting all of the following requirements by the priority deadline:

- WWU Transfer Application and non-refundable application fee:  
[admissions.wvu.edu/transfer/t\\_instructions.html](http://admissions.wvu.edu/transfer/t_instructions.html)
- Official transcript from all colleges and universities attended
- Nursing Program Application including goal statement and resume
- Academic and professional references (3)

### Major Declaration Process

Offers of admission to the RN-to-BSN program satisfies the major declaration process.

Upon acceptance and continuation in BSN Major

- Declaration of all Center for Disease Control and Prevention (CDC) recommended immunizations for Health Care Provider (HCP):
  - Measles, Mumps & Rubella (MMR)
  - Hepatitis B
  - TDap
  - Varicella (Chicken Pox)
  - Influenza
  - Annual two-step testing for tuberculosis (PPD or IGRA)
- Healthcare Provider CPR
- Background Check
- Malpractice/Liability Insurance
- Personal Health Insurance
- Essential Functions Agreement to maintain nursing professional behaviors for admission, progression and graduation
- Drug Screening
- Additional requirements for clinical practice experience placement will be completed during the first quarter of the program.

### Grade Requirements

A grade of C or better is required for a Nursing student's major or minor courses, and supporting courses for majors and minors.

### Program Requirements

- NURS 301 - Information Literacy to Support Academic Discourse

- ❑ NURS 305 - Social Justice and Healthcare
- ❑ NURS 401 - Transitions in Professional Nursing Practice
- ❑ NURS 402 - Translational Research for Evidence-Based Practice
- ❑ NURS 412 - Policy, Leadership and U.S. Healthcare
- ❑ NURS 422 - Organizational Change for Quality and Safety in Healthcare
- ❑ NURS 432 - Community-Based Care for Vulnerable Populations
- ❑ NURS 433 - Community-Based Care for Vulnerable Populations Practice Experience
- ❑ NURS 442 - Interdisciplinary Care Coordination
- ❑ NURS 443 - Interdisciplinary Care Coordination Practice Experience
- ❑ NURS 452 - Global Health Inequities and Interventions

## Master of Arts

### Rehabilitation Counseling, Non-Thesis, MA

Department of Health and Community Studies, Woodring College of Education

#### Graduate Faculty

**Boland, Elizabeth**, PhD

**Brickham, Dana**, PhD

Program Director: Dr. Elizabeth Boland, 425-405-1645, Elizabeth.Boland@wwu.edu.

#### Program Information

Rehabilitation Counseling is a systematic process that partners with persons with physical, sensory, mental, developmental, cognitive, and emotional disabilities while emphasizing the holistic nature of human function. Rehabilitation counselors are competent to provide an assessment of abilities and functional limitations, develop plans consistent with individual needs, and partner with clients in achieving their goals through a variety of modalities including individual and group counseling, vocational training and education, and job development and placement. Rehabilitation counseling is a dynamic, exciting field with excellent employment opportunities in both the public and private sectors, including state and federal rehabilitation agencies, nonprofit agencies, veteran's programs, workers' compensation agencies, hospitals, and universities.

The 72-credit degree program is completed through a combination of classroom-based and distance learning coursework. Classroom-based courses are offered at the program's off-campus site located at the Everett University Center on the Everett Community College campus. The program is accredited by the Council on Rehabilitation Education (CORE).

For further information, see the Rehabilitation Counseling program website at [wce.wwu.edu/rc/rehabilitation-counseling](http://wce.wwu.edu/rc/rehabilitation-counseling).

#### Goals

The mission of the Master of Arts in Rehabilitation Counseling program is to prepare dedicated and qualified rehabilitation counselors who will partner with individuals with disabilities to enhance their lives, including self-determination, independence, meaningful employment, and full community participation.

The objectives of the program are:

- To offer a quality curriculum that prepares master's level rehabilitation counselors with the knowledge and skills necessary to ethically and competently serve and advocate with individuals with disabilities.
- To recruit and retain qualified students for a viable program that includes persons from diverse racial and cultural backgrounds and individuals with disabilities.
- To promote an inclusive learning community that enriches student experience and education and promotes full participation of all students.
- To create opportunities for student interaction with individuals with disabilities as well as individuals from culturally diverse backgrounds.

## HEALTH AND COMMUNITY STUDIES

- To efficiently and effectively enhance the program by obtaining regular and timely feedback from students, the advisory committee, field experience site supervisors, consumers, graduates, and employers

### Application Information

**Admit Quarters:** Fall

**Application Deadlines:** Priority deadline: April 1; Final deadline: June 1

### Supporting Materials:

Candidates must meet the requirements of the Graduate School in addition to the following departmental requirements:

- The Miller Analogies Test (MAT) is preferred or the Graduate Record Exam, General Test; test scores are not required if an applicant holds an advanced degree from an accredited college or university
- Three current references
- A current résumé
- A typed personal statement outlining the rationale for applying to the program. The statement should address career objectives, rationale for choosing this program, professional and personal strengths as they apply to the field of rehabilitation counseling, related work experiences, the way in which personal and professional life experiences have converged to motivate application to the program, a statement of goals and interests which demonstrates and illustrates the applicant's personal value system, computer competence, and other insights as deemed appropriate by the applicant
- A personal interview
- A signed statement indicating an understanding and intention to comply with the program's essential functions and expectations for academic and professional performance.
- Successful completion of the program background check.
- Access to computer, necessary software, and computer competencies are required

Please upload supporting materials with the application.

### Admission

Successful candidates must demonstrate their commitment to working with individuals with disabilities to assist them to adjust to the psychological, social, medical, and vocational impact of a disability on their lives. The commitment may be demonstrated by either work or volunteer experiences with persons with disabilities. Applicants are expected to demonstrate strong writing skills.

### Retention

In addition to Graduate School and University policies, retention in the Rehabilitation Counseling program is dependent upon the development of professional competencies in interaction with clients and other professionals, especially as related to the program's essential functions and expectations for academic and professional performance. Development of professional competencies is monitored and evaluated on a yearly basis by the faculty of the program and will serve as a basis for retention of the student in the Rehabilitation Counseling program.

### Program of Study

Requirements (minimum 72 credits)

Core (52 credits)

- RC 501 - Rehabilitation Research
- RC 579 - Human Growth, Development, and Disability
- RC 580 - Theory of Rehabilitation Counseling
- RC 582 - Introduction to Rehabilitation Counseling
- RC 583 - Practice of Rehabilitation Counseling

- ❑ RC 584 - Group Counseling Techniques in Rehabilitation
- ❑ RC 585 - Social, Psychological and Attitudinal Aspects of Disability
- ❑ RC 586 - Medical Aspects of Disability
- ❑ RC 587 - Utilization of Tests and Evaluation Tools
- ❑ RC 588 - Career Development and Job Placement
- ❑ RC 589 - Case Management in Rehabilitation
- ❑ RC 594 - Introduction to Psychiatric Rehabilitation
- ❑ RC 595 - Cognitive Disabilities in Rehabilitation
- ❑ Practicum/Internship: (20 credits)
  - RC 591 - Practicum in Rehabilitation Counseling
  - RC 592 - Internship in Rehabilitation Counseling

### Comprehensive Examination

Students are required to pass a comprehensive examination prior to graduation during the last quarter in the program.

### Additional Information

#### Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 204.

#### Comprehensive Assessment

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

#### Second Master's Degree

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

Post-baccalaureate candidates interested in combining teacher certification and master's degree study should contact the Teacher Education Admissions office or the Graduate Office.

Some programs include an internship. Successful completion of a criminal background check that may involve fingerprinting is required of all students prior to the internship. Students with questions should check with their department advisor for details.

## Master of Education

### Adult and Higher Education, Non-Thesis, MEd

Department of Health and Community Studies, Woodring College of Education

# HEALTH AND COMMUNITY STUDIES

## Graduate Faculty

**Cuban, Sondra**, PhD  
**Goto, Stanford**, PhD  
**Dagnon, Paula**, PhD

Program Director: Dr. Sondra Cuban, Miller Hall 417D, 360-650-2977, [Sondra.Cuban@wwu.edu](mailto:Sondra.Cuban@wwu.edu)

## Program Information

The Master's in Adult and Higher Education program is designed for those who desire to teach, consult, or administer education programs, materials and policies targeted to diverse adult populations. The Adult and Higher Education curriculum links theories to practice, policies, research and evaluation. It prepares students for competency and knowledge in the areas of instructional technology, e-learning, research methods, teaching methodologies, adult literacy, diversity issues, curriculum development, leadership and management, policy issues, assessment and evaluation, adult learning, and program development. Graduates will work in settings such as community/technical colleges, universities, government agencies, non-profit organizations and business and industry.

The 52 credit course work is offered through a blended (hybrid) format (with some course sessions on the main campus in Bellingham).

The program is designed for working adults. Completion time for the program is designed for two years on a part-time basis.

Students may choose all of their elective credits from the AHE degree or apply up to ten credits of 400 level TESOL coursework toward the AHE degree.

For more information see the Adult and Higher Education website at: [wce.wwu.edu/AHE/adult-and-higher-education](http://wce.wwu.edu/AHE/adult-and-higher-education).

## Goals

The program prepares both entry-level and advanced practitioners as teachers, trainers, educators, policy-makers, consultants, administrators in diverse educational, human resource, business, and healthcare settings for adults. The approach emphasizes a social justice and a progressive approach to the adult and higher education field; academic, critical, and digital literacies; inquiry-based learning with action research; and issues of identity, reflection, and diversity.

## Application Information

**Admit Quarters:** Fall and spring quarters

**Deadline:** Application deadlines are June 1 and February 1

Supporting Materials:

Applicants must meet the requirements of the Graduate School in addition to the following departmental requirements:

- The Miller Analogies Test (MAT) is preferred or the Graduate Record Exam, General Test; test scores are not required if an applicant holds an advanced degree from an accredited college or university
- Three current references
- A current résumé
- Two-page statement which addresses relevant experiences, interests, learning objectives, and career goals
- Access to computer, necessary software, and computer competence are required
- Signed Essential Functions for AHE form
- An interview may be requested

Please collect all application materials and submit them through Western's Graduate School online application.



## Program Requirements (52 credits)

Core Courses: (36 credits)

- AHE 501 - Understanding Educational Research
- AHE 571 - Research and Evaluation Methods
- AHE 576 - Leadership and Management of Educational Programs
- AHE 577 - Learning in Adulthood
- AHE 580 - Teaching and Instructional Design
- AHE 588 - Portfolio and Applied Research Proposal
- AHE 592 - Field Experience
- I T 546 - Instructional Technology and Digital Literacy
- One course from:
  - AHE 554 - Foundations of Adult Education and Diversity
  - AHE 555 - Foundations of Higher Education and Diversity
- Electives under advisement: (16-24)
- Comprehensive assessment

## Adult and Higher Education Courses

### AHE 375 - Diversity in Higher Education

An introduction to the study of diversity issues within the context of services and programs in higher education. Emphasis on the relationship between growth in diversity of students and the range and complexity of services and programs designed to ensure their academic and personal success.

**Credits:** 4  
**Grade Mode:** Letter

### AHE 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### AHE 501 - Understanding Educational Research

Introduction to genres, uses, strengths, and limitations of human subjects research. Emphasis on understanding and critiquing research in adult and higher education. Students will determine the effectiveness by analyzing existing quantitative and qualitative studies.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### AHE 518 - Current Issues in Education

Examination and discussion of several current and controversial issues in education. Repeatable with no maximum limit.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### AHE 554 - Foundations of Adult Education and Diversity

This course is an introduction to the understanding of adult education as a discipline and a field. Topics include the scope, structure, philosophy, history, and issues related to diversity as well as other current factors influencing the practice of adult education.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### AHE 555 - Foundations of Higher Education and Diversity

This course will introduce students to research, theory, policy and practice related to diversity topics in the field of higher education and encourage students to develop their own understandings of historical and contemporary issues.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### AHE 556 - The Community College

## HEALTH AND COMMUNITY STUDIES

History, objectives, organization and role of the public community college; special attention to the expanding system in the State of Washington.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 570 - Issues in Adult Literacy**

This course explores theory and research in adult literacy. Taking a broad view of literacy, we will consider issues of literacy use and acquisition in light of various social, cultural, and organizational issues. Particular emphasis will be placed on implications for ABE, GED, ESL, and workplace/workforce education. The class will provide a conceptual foundation for educators who promote adult literacy, but this is not an instructional methods course per se.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 571 - Research and Evaluation Methods**

Qualitative and quantitative methods for conducting human subjects research and program evaluation in adult and higher education. Understanding distinctions between research and evaluation. Choosing strategies for data collection and analysis that are appropriate for a given purpose, context, and population.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor and AHE 501.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 574 - Experiential Learning**

Designed to provide theory and practice in the use of educational strategies that enhance the learner's ability to translate research into usable knowledge.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor. This course is, essentially, an advanced/specialty course in curriculum design. It is recommended that you take AHE 571 or AHE 580 prior to or concurrently with AHE 574.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 576 - Leadership and Management of Educational Programs**

A study of contemporary theories of leadership and their application in private, public and nonprofit agencies.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 577 - Learning in Adulthood**

Study of the ways adults learn and the factors related to their motivation, participation and achievement. Application of theory to practice.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 578 - Program Development**

This course focuses on the skills and knowledge as well as practice in program planning and development for persons who have the responsibility of designing educational and or/training programs for adults in a variety of public and private organizations and agencies.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 579 - Power, Politics and Policies**

This course is designed to give an overview of the dynamic between power, politics and policies in adult education institutions and organizations.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 580 - Teaching and Instructional Design**

Study and practice in teaching methodologies and assessments for adult and higher education settings. Special emphasis on facilitating student learning and applied classroom practice.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor; AHE 577.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 581 - Readings in Adult and Higher Education**

This is a supervised study involving readings and discussions on topics in the fields of adult education, higher education, and human services. Repeatable up to 8 credits including original course.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 584 - Fund Development and Grant Writing**

A study of the practices of raising funds for educational programs and writing grants for projects.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 585 - Organizational Change in Educational Settings**

Exploration and application of various models for bringing about change in an organization and the development of visions and strategies for changes in training and staff development.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 586 - Teaching in E-Learning and Blended Environments**

Instructional strategies used with adult learners in online and blended environments. Students will practice configuring and using an electronic course management system.

**Prerequisites & Notes:** AHE 580 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 588 - Portfolio and Applied Research Proposal**

Students should be in final two quarters of the program with all required coursework completed. In this course students complete capstone projects including a portfolio of work demonstrating proficiency in AHE learning outcomes and a research proposal. S/U grading.

**Prerequisites & Notes:** Admission to AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** S/U

### **AHE 590 - Global Perspectives in Education**

An examination of how cultural, political, social, and economic factors impact adult education from

a global perspective.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **AHE 592 - Field Experience**

Field-based project is an aspect of adult and higher education to enhance theory/practice integration such as: teaching, leadership, project development, curriculum development and distance education design. S/U grading.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 4

**Grade Mode:** S/U

### **AHE 691 - Research Seminar**

Graduate research under the direction of program advisor or instructor. Repeatable to a maximum of 6 credits, including original course. S/U grading.

**Prerequisites & Notes:** Admission to the AHE program or permission of instructor.

**Credits:** 1-6

**Grade Mode:** S/U

## **Human Services Courses**

### **HSP 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **HSP 301 - Human Services Professionals and Personal Systems**

Provides an introduction to Systems thinking and explores personal systems in relation to other systems with an emphasis on motives, values, personal communication, and self-determination.

**Prerequisites & Notes:** Admission to major, or permission of Human Services Program.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 302 - Introduction to Human Services**

## HEALTH AND COMMUNITY STUDIES

A conceptual foundation of human services, with an emphasis on history, policy, current theoretical models, and ethical considerations for professionals.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 303 - Interpersonal and Small Group Systems**

Investigates interpersonal and small group systems in relation to other systems, with an emphasis on communication models and theories of group dynamics.

**Prerequisites & Notes:** HSP 301 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **HSP 304 - Portfolio Learning in Human Services**

Must be taken in the first 5 credits of the major. Reading, writing, and discussion elaborating on the portfolio processes for learning, assessment and professional development in the human services field. An emphasis is placed on benchmark assessment in relationship to CSHSE National Standards and a survey of writing styles of the human services profession. Portfolios will be finalized in HSP 495 - Capstone Portfolio. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **HSP 305 - Human Services Professionals and Small Group Systems**

A study of small groups in relation to other systems, with emphasis on theories of group dynamics, process, facilitation, and leadership.

**Prerequisites & Notes:** HSP 303 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **HSP 311 - Health Care and Human Services**

Examines societal, cultural, and economic factors that affect characteristics of the healthcare system, analyzes policies, and assesses different organizational models that impact the skills and knowledge necessary for human services professionals to advocate for client access to the health care system and to influence health care policy.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 315 - Human Development and Human Services**

An interdisciplinary examination of human development across the lifespan, with an emphasis on issues that are relevant to providing effective human services delivery. Topics examine theories related to physical, cognitive, social, and emotional development, normative and non-normative developmental processes, and the relationship between public policy, human services, and human development.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 323 - Conflict Resolution in Human Services**

A multidisciplinary survey of the nature of conflict and models of conflict resolution including mediation, negotiation, arbitration, conciliation, and collaborative problem solving as they apply to the human services profession.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 325 - Interviewing and Interventions for Human Services**

Addresses the theory and practice of interviewing and interventions in a variety of human services settings. Examines ethics and professional skill development.

**Prerequisites & Notes:** Entrance to the Human Services major or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 331 - Children, Families, and Communities**

Explores theories, research, and practices of child and family-centered development with an emphasis on child and family-centered support practices, home-school-community collaborations, interprofessional practices, and integrated services.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 340 - Introduction to Field Studies**

An introduction to field-based learning, with an emphasis on professional and ethical expectations, liability and malpractice, confidentiality and boundaries, health and safety, and observation

and reflection. Supervised field experience is included. S/U grading.

**Prerequisites & Notes:** HSP 301; HSP 302 or concurrent.

**Credits:** 4

**Grade Mode:** S/U

### **HSP 341 - Practicum and Seminar II**

Practicum learning and accompanying seminar, with an emphasis on establishing client/professional relationships; understanding and following agency policies, procedures, and protocol; and professional growth through observation and reflection. Supervised field experience is included. S/U grading.

**Prerequisites & Notes:** HSP 340

**Credits:** 4

**Grade Mode:** S/U

### **HSP 345 - Case Management and Interventions**

Models and theories of case management, intake assessment, service planning and coordination, monitoring, documentation and use of technology, and termination of services. Continuum of interventions, (i.e., prevention, treatment, maintenance, aftercare) are addressed within the context of a spectrum of service settings and ethical and culturally appropriate responses.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 356 - Narrative in Human Services**

Interdisciplinary study of the uses of narrative in social science research, psychological theory, cultural and individual identity, and the professional practice of human services.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 371 - Issues and Concepts in Human Services**

Discuss and analyze selected issues and concepts in human services. Repeatable up to 4 times, including original course.

**Prerequisites & Notes:** Admission to the major or program approval.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 373 - Law and Human Services**

Study in the interaction of legal systems with human services delivery systems, and the roles of

the courts in impacting social change in society. Examine the institutional sources of law that affect individual and group rights and duties, criminal justice models and systems, and major issues in criminal and civil law.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 385 - Applied Research Methods**

An introduction to quantitative and qualitative research methods relevant to the human services profession. Includes an overview of research designs, analysis techniques, and methods of interpretation, dissemination and application.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **HSP 402 - Inequity in U.S. Policy and Institutions: Implications for Human Services Professionals**

This course critically examines the role of U.S. policy and institutions in creating and reproducing inequity in society, while exploring processes for change.

**Prerequisites & Notes:** HSP 455 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **HSP 404 - Human Services Professionals and Community Systems**

This course provides an examination of the dynamics of communities through the critical analysis of economic, political/policy, social and cultural systems while emphasizing potential processes for creating change.

**Prerequisites & Notes:** HSP 455 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

## HEALTH AND COMMUNITY STUDIES

### **HSP 406 - Human Services Professionals and Global Systems**

This course examines the dynamics of global systems through the critical analysis of economic, political/policy, social and cultural systems while emphasizing potential processes for creating change.

**Prerequisites & Notes:** HSP 455 or instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

### **HSP 410 - Mental Health: Individuals and Systems**

A survey of diagnostic criteria and an overview of theory and research describing the interactions of biological, environmental, psychosocial, cognitive and socio-cultural factors that relate to the development and maintenance of mental health. An emphasis is placed on understanding the major models used to integrate prevention, maintenance, and intervention, reduce recidivism and promote healthy functioning. Integrated services and resource referral practices are examined within the context of mental health services and general human services delivery.

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 430 - Readings and Projects in Human Services**

Supervised reading and projects on selected contemporary topics that impact human services. Repeatable to a maximum of 8 credits.

**Credits:** 1-4  
**Grade Mode:** Letter

### **HSP 435 - Human Services and Management**

Fundamentals of management in public and nonprofit organizations with a social justice orientation. Topics include governance structure, stakeholder engagement, strategic planning, financial management, and advocacy.

**Prerequisites & Notes:** Admission to major.  
**Credits:** 4  
**Grade Mode:** Letter

### **HSP 440 - Internship and Seminar**

Includes seminar and 120 hours of supervised field experience to meet professional standards. S/U grading. Repeatable to a maximum of 16 credits including original course.

**Prerequisites & Notes:** HSP 340.  
**Credits:** 4  
**Grade Mode:** S/U

### **HSP 443 - Disability: Individuals and Systems**

An exploration of disability issues relating to work in human services, including historical, legal, ethical, medical, psychosocial, employment, and independent living issues; review of specific disabilities.

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 450 - Survey of Addictions and Dependencies**

Examines the etiology of chemical dependency and other compulsive behaviors and the impact of these behaviors on societal systems such as family, legal, education, work, social, and health services. Discusses roles of human services professionals in prevention and intervention.

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 455 - Diversity & Social Justice Dynamics**

Examination of the current complexity and historical context of diversity in relationship to human services systems. Topics include responses to institutional oppression and privilege as manifested in societal systems.

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 484 - Grant Writing**

Investigating optimum sources for funding the delivery of human services programs with an emphasis on planning, writing, marketing, and evaluating funding proposals. Determining funding strategies, selecting funding methods, researching grant funds, interpreting funding guidelines, and preparing grant proposals.

**Prerequisites & Notes:** Admission to major; open to non-majors at Phase 2.  
**Credits:** 4  
**Grade Mode:** Letter

### **HSP 485 - Program Planning and Evaluation**

Fundamentals of program planning and evaluation including conducting needs assessments, program development within a logic model framework, and applying evaluation research methods.

**Prerequisites & Notes:** HSP 385

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 486 - Human Resources in Human Services**

Overview of the human resources knowledge and skills required of human services professionals

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 487 - Leadership**

Modern theories of administration, management and leadership. Interdisciplinary exploration of theories, models, principles, research, and skills as they relate to personal and organizational leadership.

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 495 - Capstone Portfolio**

Must be taken in the last 5 credits of the major. Assess integrated learning through discussion and writing related CSHSE National Standards. Review and revise capstone essay and writing samples; review, select and revise portfolio artifacts. Finalize student capstone portfolio to complete benchmark assessment in the Human Services major.

**Credits:** 4  
**Grade Mode:** Letter

### **HSP 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **Nursing Courses**

### **NURS 301 - Information Literacy to Support Academic Discourse**

Focuses on developing the ability to utilize technologies to access and evaluate the credibility of information, consider the strength of varied perspectives, and develop skills of academic discourse necessary for a reasoned analysis of current issues in health care and health care professions.

**Prerequisites & Notes:** ENG 101 and admission to the RN-to-BSN program or permission of instructor.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCOM

### **NURS 305 - Social Justice and Healthcare**

Explores the principal themes and issues relating to social justice and health disparities. Examines how oppression, racism and privilege shape patient care. Provides opportunities to support social justice in healthcare using increased self-awareness, theories of justice, and research findings to promote equitable patient care.

**Prerequisites & Notes:** Admission to the RN-to-BSN program or permission of instructor.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **NURS 307 - Writing Across the Curriculum**

This is a hybrid course that emphasizes strategies and ongoing practice in critical reading, writing and thinking skills that enhance student success in developing clear, informed, analytic and persuasive academic papers. Students may take one credit per quarter, repeatable up to 5 credits maximum, including original course. May be taken concurrently with any core RN to BSN course.

**Prerequisites & Notes:** Admission to the RN-to-BSN program or permission of instructor.

**Credits:** 1  
**Grade Mode:** S/U

### **NURS 401 - Transitions in Professional Nursing Practice**

Throughout the 5 credits of this course, students will establish a professional nursing presence through self-assessment and identification of academic, professional and personal goals. Students will examine select issues within professional nursing practice. Each quarter, course objectives increase in depth and complexity.

**Prerequisites & Notes:** Admission to the RN-to-BSN program.

**Credits:** 1-2  
**Grade Mode:** S/U

### **NURS 402 - Translational Research for Evidence-Based Practice**

Utilizes the elements of the research process and analytic skills necessary to evaluate, translate and apply current systematic inquiry to inform nursing practice and promote optimal clinical outcomes. This course requires 30 hours of service learning

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with a community mentor. The targeted goal of this service learning experience is completing a project proposing an evidence-based practice change.

**Prerequisites & Notes:** NURS 301

**Credits:** 5

**Grade Mode:** Letter

### **NURS 412 - Policy, Leadership and U.S. Healthcare**

Examines health care policy, finance and regulatory environments that directly and indirectly influence the health care system. Utilizes a systems-leadership approach in advocacy for patients, families, communities and healthcare professionals to promote social justice and equity in our system of care.

**Prerequisites & Notes:** NURS 402 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **NURS 422 - Organizational Change for Quality and Safety in Healthcare**

Examines and applies theories of organizational behavior, systems thinking, and leadership to quality improvement strategies that minimize errors and optimize positive clinical outcomes. Participation in selected patient safety and quality improvement initiatives provide opportunity to apply and evaluate the relevance of theoretical concepts to real-world health care challenges. This course requires 30-hours of service learning with a community mentor. The targeted goal of this service learning experience is completing a project proposing a blueprint for implementation of a practice change idea to include organizational assessment for readiness for change, quality assurance measures, and a plan for sustainability of the change.

**Prerequisites & Notes:** NURS 402

**Credits:** 5

**Grade Mode:** Letter

### **NURS 432 - Community-Based Care for Vulnerable Populations**

Emphasizes population focused healthcare including the assessment of risk, predictive and protective factors that influence health and well-being of groups, communities and aggregate populations. Integrates and applies principles of social justice, health promotion, disease and injury prevention in providing services to vulnerable populations in the community-context.

**Prerequisites & Notes:** NURS 412; NURS 422 or concurrent or instructor permission. Co-req: NURS 433.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### **NURS 433 - Community-Based Care for Vulnerable Populations Practice Experience**

Community-Based Care Clinical Practice experience of 30 hours taken in conjunction with NURS 432 course. Students establish community partnerships and apply theoretical foundations. Washington State RN license required. S/U grading.

**Prerequisites & Notes:** NURS 412; NURS 422 or concurrent or instructor permission. Co-req: NURS 432.

**Credits:** 2

**Grade Mode:** S/U

### **NURS 442 - Interdisciplinary Care Coordination**

Integrates knowledge, skills and attitudes necessary to promote community based patient/family centered health care coordination through effective use of appropriate technologies, interdisciplinary communication, teamwork and collaboration.

**Prerequisites & Notes:** NURS 432; NURS 452 or concurrent or instructor permission. Co-req: NURS 443.

**Credits:** 3

**Grade Mode:** Letter

### **NURS 443 - Interdisciplinary Care Coordination Practice Experience**

Interdisciplinary Care Coordination Practice Experience of 30 hours taken in conjunction with NURS 442 course. Students establish community partnerships and apply theoretical foundations. Washington State RN license required. S/U grading.

**Prerequisites & Notes:** NURS 432; NURS 452 or concurrent or instructor permission. Co-req: NURS 442.

**Credits:** 2

**Grade Mode:** S/U

### **NURS 452 - Global Health Inequities and Interventions**

Examines major problems and policy issues in global health from multiple perspectives. Focuses on understanding the historical, political, social, cultural, environmental and economic determinants of adverse health conditions in developing countries. Provides a knowledge base



for healthcare professionals to promote social justice by improving global health disparities.

**Prerequisites & Notes:** NURS 432 or permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** ACGM

## Rehabilitation Counseling Courses

### RC 500 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### RC 501 - Rehabilitation Research

An overview of research including: design and analysis; criteria for reading and interpreting existing studies; practice in identifying issues suitable for research; formulating hypotheses and appropriate methods; and guidance in preparing a program evaluation. Emphasis is on the application of research in clinical and rehabilitation settings.

**Credits:** 4

**Grade Mode:** Letter

### RC 519 - Current Issues in Rehabilitation Counseling

Examination of several current and controversial issues in rehabilitation. Topics change. Repeatable to a maximum of 6 cr.

**Credits:** 3

**Grade Mode:** Letter

### RC 546 - Relapse Prevention and Rehabilitation

Addresses personal, family and social rehabilitation issues that emerge first five from addiction. Discusses the processes and behaviors leading to relapse and theoretical models for prevention and promoting recovery.

**Credits:** 3

**Grade Mode:** Letter

### RC 579 - Human Growth, Development, and Disability

Examines human growth and development in the context of rehabilitation counseling. Provides a review of human development theories across the lifespan and their implications and applications with persons with disabilities.

**Credits:** 4

**Grade Mode:** Letter

### RC 580 - Theory of Rehabilitation Counseling

An introduction to major counseling theories and their application in rehabilitation settings. Emphasis on understanding and demonstrating basic helping skills in a counseling relationship with individuals with disabilities.

**Credits:** 4

**Grade Mode:** Letter

### RC 581 - Readings and Projects in Rehabilitation

Supervised readings and projects on selected contemporary topics that impact rehabilitation counseling. Repeatable to a maximum of 6 credits.

**Credits:** 2-4

**Grade Mode:** Letter

### RC 582 - Introduction to Rehabilitation Counseling

An overview of the principles and practices of rehabilitation counseling, including history, philosophy, ethics, legislative influences, organizational structures, and service-delivery models. Explores various specialties within the field of rehabilitation counseling.

**Credits:** 4

**Grade Mode:** Letter

### RC 583 - Practice of Rehabilitation Counseling

Application of concepts and techniques that have been introduced from major counseling theories in RC 580. Emphasis on continued development and refinement of counseling skills through advanced role-play and actual counseling with individuals with disabilities.

**Prerequisites & Notes:** RC 580 or permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### RC 584 - Group Counseling Techniques in Rehabilitation

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A didactic and experiential course to introduce students to the dynamics of group counseling. Purpose, process and techniques related to various types of groups.

**Prerequisites & Notes:** RC 583 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **RC 585 - Social, Psychological and Attitudinal Aspects of Disability**

An examination of the impact of disability on the individual, the individual's environment, significant others, and society in general. The adjustment process that individuals and their families experience is compared and contrasted within developmental and environmental contexts.

**Credits:** 4

**Grade Mode:** Letter

### **RC 586 - Medical Aspects of Disability**

An examination of the etiology, prognosis, treatment and vocational implications of major disabling conditions with an emphasis on physical and sensory impairments. Includes an introduction to medical specialties, therapeutic services, restorative techniques, medical terminology, and rehabilitation engineering.

**Credits:** 4

**Grade Mode:** Letter

### **RC 587 - Utilization of Tests and Evaluation Tools**

Gathering, analyzing, and synthesizing of vocationally relevant information for use in the rehabilitation process. Advantages and limitations of traditional psychological inventories, as well as various situational assessment tools. Emphasis on collaborative, client-centered approach to assessment.

**Credits:** 4

**Grade Mode:** Letter

### **RC 588 - Career Development and Job Placement**

Examines career development theories, occupational information, labor market trends, and meaningful employment with a career focus. Includes job analysis, employment techniques, accommodations, and legislation.

**Credits:** 4

**Grade Mode:** Letter

### **RC 589 - Case Management in Rehabilitation**

Examines techniques and procedures related to individualized case management and caseload management. Explores case management issues of various disability groups, including educational and vocational community resources.

**Credits:** 4

**Grade Mode:** Letter

### **RC 590 - Employment Strategies and Job Placement**

Explores the process and techniques of work adjustment, job development, job maintenance, and building relationships with employers. Includes job analysis, employment techniques, labor market trends, accommodations, and legislation.

**Prerequisites & Notes:** RC 588 or instructor permission

**Credits:** 3

**Grade Mode:** Letter

### **RC 591 - Practicum in Rehabilitation Counseling**

Demonstration of counseling skills with individuals with disabilities in a rehabilitation agency. Supervision by agency personnel. S/U grading.

**Prerequisites & Notes:** RC 582, B or better in RC 583 and instructor permission.

**Credits:** 4

**Grade Mode:** S/U

### **RC 592 - Internship in Rehabilitation Counseling**

Demonstration of counseling skills in a rehabilitation agency with primary supervision by agency personnel. Students are required to spend significant time within an agency functioning as a professional counselor. Repeatable to a maximum of 16 credits. S/U grading.

**Prerequisites & Notes:** RC 591 and permission of instructor.

**Credits:** 1-8

**Grade Mode:** S/U

### **RC 593 - Introduction to Assistive Technology**

Understand the ecology of assistive technology for people with disabilities. Emphasis is on the functional assessment and relation to assistive technology needs and the physical, psychosocial, environmental and legal domains of assistive technology. Covers the use of various devices and their implications on an individual's rehabilitation

program.

**Credits:** 3

**Grade Mode:** Letter

### **RC 594 - Introduction to Psychiatric Rehabilitation**

Understanding major psychiatric disorders, principles and practices of psychiatric rehabilitation. Examines the role of the rehabilitation counselor as an integral part of the treatment team.

**Credits:** 4

**Grade Mode:** Letter

### **RC 595 - Cognitive Disabilities in Rehabilitation**

An examination of the etiology, prognosis, treatment, and vocational implications of cognitive disabilities.

**Credits:** 4

**Grade Mode:** Letter

### **RC 596 - Advanced Assessment in Rehabilitation**

Application of medical, vocational, and assessment knowledge and skills to the planning, selection, and interpretation of the rehabilitation process for individuals with disabilities.

**Prerequisites & Notes:** RC 587 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **RC 598 - The Family and Rehabilitation Counseling**

A theoretical understanding of how to work with families for achieving maximum outcomes in the rehabilitation counseling process.

**Prerequisites & Notes:** RC 583 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **RC 599 - Advanced Practice of Rehabilitation Counseling**

A didactic and experiential course which emphasizes in-depth practice of the theories, concepts, and techniques introduced in RC 580 and 583. Continued development and refinement of counseling skills with proficiency as a desired outcome.

**Prerequisites & Notes:** RC 580 and RC 583 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

## **Student Affairs Administration Courses**

### **SAA 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **SAA 340 - Paraprofessional Advisement**

Emphasizes the helping relationship in various student affairs advising, educational and residential program areas. Repeatable with different topics.

**Prerequisites & Notes:** Permission of instructor and anticipated employment in campus-based student services.

**Credits:** 2-4

**Grade Mode:** Letter

### **SAA 341 - Practicum in Paraprofessional Advisement**

Supervised practicum for students to work in university student services programs. Repeatable with various experiences to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** SAA 340; permission of instructor.

**Credits:** 1-4

**Grade Mode:** S/U

### **SAA 375 - Diversity in Higher Education and Student Affairs**

An introduction to the study of diversity issues within the context of services and programs in higher education and student affairs. Emphasis on the relationship between growth in diversity of students and the range and complexity of services and programs designed to ensure their academic and personal success.

**Credits:** 4

**Grade Mode:** Letter

## HEALTH AND COMMUNITY STUDIES

### **SAA 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **SAA 420 - Foundations of Student Leadership: Theory and Practice**

Introduces leadership theories and facilitates student understanding of their leadership styles and strategies as emerging leaders.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

# Secondary Education

## Introduction

The Department of Secondary Education offers professional education programs that lead to recommendation from the Office of the Superintendent of Public Instruction for residency teacher certification in the state of Washington, for candidates who wish to teach at the secondary level (middle and high school). The programs in Secondary Education are firmly backed by current research of effective teaching and promoting student learning, and provides multiple field experiences (including service-learning, practica, and student internship).

To learn about the core values that guide our teacher preparation program, visit our website to read the Secondary Education Department's Guiding Principles. The Woodring College of Education vision fosters community relationships and a culture of learning that advances knowledge, embraces diversity, and promotes social justice. This vision establishes the educational values that guide the College. Woodring College has had a long-standing commitment to preparing teachers and producing highly capable, effective educators who strive for ambitious goals in teaching; teaching that is ambitious both in its intellectual goals and in its concern for the learning and well-being of all students.

## Information

Advising related to the academic major or endorsement will take place in the academic major department, and individuals interested in teacher certification are encouraged to seek early advising by contacting their advisor. Additional contacts are below.

- Secondary Education Department: [wce.wwu.edu/sec](http://wce.wwu.edu/sec), 360-650-3327, [Christina.Carlson@wwu.edu](mailto:Christina.Carlson@wwu.edu), Miller Hall 400.
- Undergraduate and Post-Baccalaureate, Woodring College Admissions: [wce.wwu.edu/admission](http://wce.wwu.edu/admission), 360-650-3313, [TeacherEd.Admission@wwu.edu](mailto:TeacherEd.Admission@wwu.edu), Miller Hall 150. Mail to: Teacher Education Admissions, WWU, Miller Hall 150, 516 High St., Bellingham, WA 98225-9090.
- Master in Teaching, Graduate School: [wwu.edu/gradschool](http://wwu.edu/gradschool), 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu). Mail to: Graduate School, WWU, Old Main 530, 516 High St., Bellingham, WA 98225-9037.

## Faculty

**KEVIN ROXAS** (2014) Chair and Assistant Professor. BA, University of Notre Dame; MA, University of San Francisco; PhD, Michigan State University.

**DONALD BURGESS** (2004) Associate Professor. BA, Western State Colorado University; MSEd, State University of New York, Cortland; PhD, University of British Columbia.

**ANGELA HARWOOD** (1997) Professor. BA, University of Utah; MA, PhD, Emory University.

**KIRSTEN JENSEN** (2003) Senior Instructor. BA, University of Washington; MIT, Western Washington University.

**BRUCE LARSON** (1996) Professor. BAE, Pacific Lutheran University; MEd, PhD, University of Washington.

**LAUREN MCCLANAHAN** (2000) Professor. BA, MA, PhD, The Ohio State University.

**VICTOR NOLET** (1997) Professor. BA, MEd, University of Maine; PhD, University of Oregon.

**TRACEY PSYCHER** (2016) Assistant Professor. BA, Eastern Michigan University; MA, PhD, University of Minnesota.

**CHRISTINE SCHAEFER** (1996) Senior Instructor. BA, Whitman College; MEd, PhD, University of Washington.

**VERÓNICA VÉLEZ** (2013) Assistant Professor. BA, Stanford University; PhD, University of California Los Angeles.

**MOLLY WARE** (2007) Associate Professor. BS, Principia College; MEd, PhD, University of Georgia.

## Secondary Education Programs

The Department of Secondary Education offers two programs which lead to teacher certification by the state of Washington.

- Secondary Education Undergraduate and Post-Baccalaureate Professional Program
  - This Secondary Education program leads to a recommendation to the state of Washington for a teaching certificate endorsed in at least one subject area. This program requires completion of the Secondary professional education course sequence, a baccalaureate degree and academic preparation for a qualifying endorsement, and a fourteen-week internship.
- Master in Teaching with Residency Certification (MIT)
  - This program is designed for candidates who have already completed a baccalaureate degree and academic preparation for a qualifying endorsement and who wish to complete a master's degree

## SECONDARY EDUCATION

while gaining teacher certification. The MIT program is available on the Western campus or at the off-campus site in Everett.

### Certification

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with Washington State K-12 Learning Standards, and require candidates to demonstrate that they have made a positive impact on student learning. First-level Residency certification programs are designed around the standards of foundational knowledge, effective teaching, and professionalism. Teacher certificates are issued by the state, upon the recommendation of the regionally accredited college or university where the candidate completed a state-approved preparation program.

**State requirements for teacher certification at the time of completion of a candidate's program will supersede those outlined in this catalog.** These changes may affect the time it takes for a candidate to complete the teacher education program.

### Residency Teacher Certification

The first-level Residency certificate is awarded to new teachers upon the completion of these general requirements:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- External assessments of content knowledge and teacher performance as required by Washington State

Candidates for Residency certification must pass a content knowledge test to earn an endorsement. WWU requires submission of a passing content test score for each endorsement to be earned, before commencement of the student teaching internship. For current information on test requirements, registration, fees, and test dates and locations, refer to Content Test Resource Website, [wce.wvu.edu/cert/content-test-resource-site](http://wce.wvu.edu/cert/content-test-resource-site). Candidates for Residency certification must also complete the state of Washington education Teacher Performance Assessment (edTPA) during the student teaching internship. Application for the

residency certificate is made to Woodring College Teacher Certification, Student Services, Miller Hall 150, 360-650-4930, no later than three months prior to the start of student teaching.

The first-issue Residency certificate has no defined expiration date. It is valid until the teacher completes at least 1.5 years of successful teaching experience accumulated over a minimum of two years in a state-approved public, private or state-operated education program. A three year residency certificate is then issued by the state. The timeline for earning a second level professional certificate begins with the reissued residency certificate

### Professional Teacher Certification

The second-level professional certificate is awarded to experienced teachers who hold a valid residency certificate and who pass the Washington ProTeach Portfolio assessment or earn national board certification through the National Board of Professional Teaching Standards. Professional certification requirements are designed around the standards of effective teaching, professional development, and professional contributions. For further information, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### Endorsements

An endorsement identifies the subject matter in which a teacher is prepared and authorized by the state to teach. One qualifying endorsement is required for Residency certification. Courses required for a state teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better. Secondary Education candidates earn a qualifying endorsement by completing a state-approved program delivered through an academic major or approved equivalent. Candidates completing a major in theatre arts, physical education and health, music, special education, visual arts or world languages (Spanish, French, German or Japanese) will be prepared to teach grade levels P-12. The remaining majors prepare candidates to teach at the secondary level (typically grades 6-12). The Secondary Education Department also offers an additional endorsement in Middle Level Humanities. Content methods courses are required for all endorsements. For specific course numbers and schedule information, candidates are advised to contact their academic department advisor. For information on additional endorsement programs offered throughout the University, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

**Choosing an Academic Major/Endorsement**

Secondary Education graduates are in high demand as teachers in many fields and grade levels. Areas of greatest demand fluctuate. Students who are interested in a teaching career are encouraged to visit the Career Services Center, Old Main 280, for information as to which endorsements are in greatest demand. Certain academic majors require sequences of classes in the first two years of college in order to complete a baccalaureate degree in four years. Per ESSA (Every Student Succeeds Act), districts are no longer required to identify Highly Qualified Teachers. Moving forward, the state of Washington will continue to monitor teacher qualifications and collect data about certification, endorsements, teaching assignments, and years of experience. Districts may still maintain previous requirements that impact eligibility for certain middle school teaching assignments in a core academic subject(s). Candidates are responsible for consulting with an advisor for further information on what endorsement will best fit their teaching career goals. The following Western Washington University majors or approved equivalent meet content requirements for a qualifying teaching endorsement:

**Secondary Level (Middle and High School)**

- English-Literature Emphasis
- Mathematics - Secondary
- Sciences:
  - Biology
  - Chemistry
  - Chemistry/Biology - Secondary
  - Chemistry/Mathematics - Secondary
  - Chemistry/Physics - Secondary
  - Earth Science - Secondary
  - Earth Science/Science - Secondary
  - Physics/Mathematics - Secondary
  - General Science - Secondary
- Social Studies:
  - Anthropology/Social Studies
  - Economics/Social Studies
  - Geography/Social Studies
  - History/Social Studies
  - Political Science/Social Studies
  - Sociology/Social Studies

**All Levels (P-12)**

- Art - P-12 Specialist
- French with a Teaching Endorsement
- German with a Teaching Endorsement
- Japanese with a Teaching Endorsement

- Music Education - P-12 Choral, General or Instrumental
- Physical Education & Health - P-12
- Spanish with a Teaching Endorsement
- Special Education - P-12
- Theatre, BA (Educational Theatre)

**Character and Fitness**

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Candidates provide evidence of character and fitness through two separate but related processes:

- A Pre-Residency Clearance through OSPI. Instructions for completion of this application will be provided upon acceptance in the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Candidates with "yes" responses must be cleared by OSPI before participating in any courses that include field experiences.
- Washington State Patrol and FBI background checks are completed through a fingerprinting process. Procedures and fee information are provided to candidates upon acceptance into the program.

No candidate in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and then cleared by the Washington State Office of Superintendent of Public Instruction. Clearances are validated for two years. Candidates must maintain character and fitness clearance until they have been recommended for a Residency teacher certificate following completion of the teacher education program.

In addition to the Washington State character and fitness requirements noted above, candidates must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct and Requirements Agreement submitted with program application materials.

**Undergraduate and Post-Baccalaureate Certification Program**

All applicants to the Undergraduate and Post-Baccalaureate Certification Program must be formally admitted to and currently enrolled at Western Washington University, or post-baccalaureate applicants must apply to Western for

## SECONDARY EDUCATION

the same quarter they apply to teacher education. Application materials are available in Miller Hall 150 and printable from [wce.wvu.edu/admission](http://wce.wvu.edu/admission).

Applicants must meet the admission requirements of Woodring College noted below. Enrollment restrictions apply to teacher education programs. Meeting the following requirements makes the applicant eligible for admission consideration but does not guarantee admission. Consideration will be given to those applicants with endorsements in academic areas of current critical need.

Applicants to the Undergraduate and Post-baccalaureate Certification Program usually complete the certification sequence in three academic quarters plus a one-quarter internship. Undergraduate students may take selected certification courses while completing their academic major during their junior and senior years with department approval. Prior to applying, undergraduates must have satisfied all of the General University Requirements. Undergraduate and post-baccalaureate applicants must have no more than 10 endorsement credits remaining, or have special permission from the department. Applicants seeking a Music or Health/Fitness endorsement should speak to their advisor to know when to apply to the Secondary Education program. Post-baccalaureates who have a minimum 3.0 GPA are encouraged to consider the Master's in Teaching program (see MIT catalog page for other program information).

### Application Requirements

- Academic preparation for a qualifying endorsement with no more than 10 credits remaining in endorsement coursework, or have special permission from the department. See the list of qualifying endorsements at [wce.wvu.edu/cert/endorsements](http://wce.wvu.edu/cert/endorsements).
- Post-baccalaureate must have a baccalaureate degree in the academic major (endorsement) and/or no more than 10 credits remaining in endorsement coursework, or have special permission from the department.
- A 2.75 undergraduate grade point average.
- Completion of an approved English composition course, with a grade of B or higher.
- Meet the Washington Education Skills Test - Basic (WEST-B) requirement. This may be met by a) passing the WEST-B exam, b) SAT minimum scores, or c) ACT minimum scores. For details, see the WEST-B Requirement website for more information, [wce.wvu.edu/admissions/west-b-](http://wce.wvu.edu/admissions/west-b-)

requirement. Passing scores must be on file by the application due date.

- Transcripts.
- Application form.
- Essays and statement of purpose.
- Two letters of reference.
- Important Application Dates:
- Applications and supporting materials must be received by the following deadlines:
  - Fall quarter: February 1, for Master in Teaching program
  - Fall quarter: March 1, for Undergraduate/Post-Bac. program
  - Winter quarter: September 1, both MIT and UG/PB programs
- How to apply: Visit the Woodring Admissions website for more information, [wce.wvu.edu/admissions/secondary-education](http://wce.wvu.edu/admissions/secondary-education).

### Program Continuation

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

### Requirements Upon Program Admission

Upon acceptance, each candidate is assigned an education faculty advisor. All newly accepted Secondary candidates must attend the mandatory orientation and advising session before beginning first quarter classes. Candidates may be dropped from Secondary Education for failing to attend the required orientation. Candidates admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

- Completion of a Pre-Residency Clearance through the Office of Superintendent of Public Instruction and a fingerprint check as described in Character and Fitness.
- Completion of the Woodring College of Education Prevention of Sexual Harassment Training.
- Completion of the Woodring College of Education Blood-Borne Pathogens Training.

### General Retention Requirements

- Candidates must maintain at least a 2.75 GPA beginning with the quarter they are notified of admission to Secondary Education. This requirement applies even to quarters where no education courses are being taken. Candidates who fail to meet this standard will receive a letter advising



them that they have been dropped from the program.

- Candidates must earn a grade of C (2.0) or better in both the professional education sequence and in all courses required for the endorsement.
- Candidates must successfully complete a minimum of one certification course each calendar year.
- Candidates must demonstrate a high level of competence in the English language. Those who have a difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship.
- Candidates are responsible for compiling a portfolio illustrating the quality of their work in each professional education class.
- Candidates must complete all certification and endorsement course work.
- Candidates are required to conduct themselves in a professional manner, in terms of moral code, use of written or verbal language, abstention from sexual harassment, gender, ethnic and racial bias.

### Program Completion

To qualify for program completion and recommendation for state of Washington residency certification, candidates must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university.
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship.
- Evidence of good moral character and personal fitness.
- Passing scores as set by the State of Washington on the state-required content knowledge test(s) for each endorsement.
- Passing scores as set by the State of Washington on the education Teacher Performance Assessment (edTPA).
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES).
- Candidates who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return.

### Internship

All Secondary student teaching internships are 14 weeks in length and require candidates to teach under the direct supervision of a certified teacher in a school setting. Student teaching internships are full-time school-based placements where the candidate assumes increasing levels of independent teaching responsibilities.

Teaching internships will begin upon completion of all certification course work and upon a recommendation of the Secondary faculty. The Secondary faculty review the list of interns for the forthcoming quarter internship and review the portfolios of any candidates whom they feel may not be competent to student teach.

Recommendation by the Secondary faculty is based on an evaluation of the candidate's competence in the following:

- Written communication.
- Verbal communication.
- Presentation skills.
- Working with students from racial and ethnic populations other than his/her own, and with special needs students.
- Academic major requirements.
- Student portfolio.
- Washington Standards for Beginning Teachers.

Should the faculty question the readiness of the candidate for the internship, a conference with a faculty review committee will be arranged, at which time faculty concerns will be presented to the candidate. The candidate will have the opportunity to defend the materials viewed by the faculty and bring forth any supporting evidence. Following the conference the faculty will make one of the following decisions: 1) approval to begin the internship, 2) develop a plan for monitoring specific behaviors during the internship, 3) develop a plan for remediation, delaying the internship, or 4) drop the candidate from the program.

Candidates must successfully complete the entire 14 weeks to receive credit for the internship and recommendation for certification.

### Application for Internship

The Office of Field Experiences (OFE) is the service agency of the College of Education which seeks placements for prospective interns. Candidates must have completed a residency teacher certificate application packet including endorsement evaluation, and Washington State Patrol/FBI fingerprinting before OFE will seek an internship placement.

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Before commencement of the internship, passing scores on the state-required content knowledge test(s) for each endorsement must be submitted, all education and endorsement course work and practica must be completed, and fingerprint/character and fitness clearance must be valid. Candidates who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements and reserves the right to place candidates anywhere within the WWU service area.

Placement in a school is contingent on:

- Fulfillment of all requirements (satisfactory academic work, education and endorsement program course work, and practica).
- Submission of passing scores on the WEST-E tests in their endorsement areas.
- Availability of placements and supervision in specific subjects, grade levels, and specific geographic area.
- Acceptance by P-12 school personnel.
- Fingerprint clearance, and character and fitness clearance through the end of the internship.

Candidates are required to interview with the certified teacher and/or school administrator at the school where the placement is being considered. A maximum of three interviews for an internship placement are arranged by OFE. Any subsequent placement after a voluntary or non-voluntary withdrawal from an internship is granted only by faculty recommendation following a case conference.

Time commitment to the internship requires seven clock hours daily Monday through Friday plus preparation time, seminars, and responsibilities outside the school. Candidates should not register for other course work, hold jobs, or obligate themselves to time-demanding commitments without the approval of the department chair and OFE.

Candidates must submit an application for an internship placement to OFE prior to the internship. All out-of-area or special placement requests require a petition. Applications, placement locations, petitions, and other information are available in the Office of Field Experiences, Student Services, Miller Hall 150.

## Additional Endorsement

### Humanities — Middle Level — Additional Endorsement

Department of Secondary Education, Woodring College of Education

#### 39-51 credits

#### Introduction

This additional endorsement program must be accompanied by the professional preparation program in Secondary Education, and preparation for an English Language Arts or Social Studies endorsement. Professional education program admission, completion, and teacher certification requirements are provided within this Secondary Education section of the catalog.

Secondary Education students who complete this program will build on their preparation for an English Language Arts or Social Studies endorsement to earn an additional endorsement in Middle Level Humanities. The Middle Level-Humanities endorsement prepares individuals to teach these core subjects and an integrated language arts/social studies core block classroom in the middle and junior high school.

#### Contact Information

360-650-3327

<https://wce.wvu.edu/sec/middle-level-additional-endorsement>

#### Sample Careers

Middle school teacher

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

Students must earn a grade of C (2.0) or better in the Secondary Education professional program and in all courses required for the endorsement

### Requirements

#### Middle School Pedagogy

- SEC 450 - Introduction to Middle Schools

#### Content and Methods — Option I or Option II

##### Option I - Requirements

### English Language Arts Endorsement

See English for a description of the major in English – Literature Emphasis with Teaching Endorsement leading to an endorsement in English Language Arts.

### Social Studies Supporting Component

- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 391 - History of the Pacific Northwest
- One course from:
  - HIST 111 - Introduction to Western Civilization: Prehistory to 476
  - HIST 121 - World History to 500 (preferred)
- PLSC 250 - The American Political System
- SEC 426 - Social Studies for the Secondary School
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)

##### Option II - Requirements

### Social Studies Endorsement

See the WWU Endorsement Programs webpage for majors leading to a qualifying endorsement in Social Studies.

### English Language Arts Supporting Component

- ENG 202 - Writing About Literature
- ENG 347 - Studies in Young Adult Literature
- ENG 370 - Introduction to Language
- ENG 436 - The Structure of English
- ENG 443 - Teaching English Language Arts in the Secondary Schools I
- One course from:
  - ENG 301 - Introduction to Writing Studies
  - ENG 302 - Introduction to Technical and Professional Writing
  - ENG 350 - Introduction to Creative Writing
  - ENG 371 - Introduction to Rhetorical Analysis
- One course from:
  - ENG 307 - Seminar in Literature & Culture: Medieval
  - ENG 308 - Seminar in Literature & Culture: Early Modern
  - ENG 309 - Seminar in Literature & Culture: The Long 18th Century
  - ENG 310 - Seminar in Literature & Culture: The Long 19th Century

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- ENG 311 - Seminar in Literature & Culture: The 20-21st Century
- ENG 317 - Survey in Literature & Culture: Medieval
- ENG 318 - Survey in Literature & Culture: Early Modern
- ENG 319 - Survey in Literature & Culture: The Long 18th Century
- ENG 320 - Survey in Literature & Culture: The Long 19th Century
- ENG 321 - Survey in Literature & Culture: The 20-21st Centuries

### Additional Requirements

#### Secondary Education Undergraduate and Post-Baccalaureate Professional Program (58 credits)

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Master of Education

### Master in Education, MEd

Woodring College of Education

This program is not currently accepting new students. For further information contact the Graduate School, Western Washington University, 516 High St., Bellingham, WA 98225-9037, 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

## Master in Teaching

### Master in Teaching, Non-Thesis, MIT

Secondary Education, Woodring College of Education

**68 Credits**

#### Graduate Faculty

**Burgess, Donald**, PhD.  
**Harwood, Angela**, PhD, graduate advisor.  
**Larson, Bruce**, PhD.  
**McClanahan, Lauren**, PhD, graduate advisor.  
**Nolet, Victor**, PhD.  
**Psycher, Tracey**, PhD.  
**Roxas, Kevin**, PhD.  
**Ware, Molly**, PhD.

## Program Information

The Master in Teaching (MIT) program is designed for candidates who wish to complete a master's degree while gaining state of Washington residency certification to teach at the secondary level (middle and high school). Our comprehensive MIT program is firmly backed by current research of effective teaching and promoting student learning. The MIT program can be completed in five quarters, including the student teaching (internship).

The MIT program is available at the Bellingham campus and at our Everett site.

Bellingham program: [wce.wwu.edu/sec/master-teaching-mit-bellingham](http://wce.wwu.edu/sec/master-teaching-mit-bellingham)

Everett program: [wce.wwu.edu/teop/master-teaching](http://wce.wwu.edu/teop/master-teaching)

Secondary Education: 360-650-3327, [Christina.Carlson@wwu.edu](mailto:Christina.Carlson@wwu.edu), Miller Hall 400

Graduate School: 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu), [wwu.edu/gradschool](http://wwu.edu/gradschool)

See the Department of Secondary Education catalog page for additional program and teacher certification information. In particular, review the following headings: Certification, Endorsements, Character and Fitness, and Internships.

## Program Application

Applicants must meet the admission requirements of the Graduate School and the Secondary Education department requirements below. Note: the GRE is not an application requirement for this graduate program. Before applying, review the endorsement website ([wce.wwu.edu/cert/endorsements](http://wce.wwu.edu/cert/endorsements)) to determine your readiness to apply. You may send unofficial transcripts with the name of your endorsement(s) to request an evaluation to [Peter.Johnson@wwu.edu](mailto:Peter.Johnson@wwu.edu). To apply, create an online application account with the Graduate School and upload all supporting documents by the application deadline.

## Application Requirements

- A 3.0 grade point average; see Graduate School eligibility requirements.
- Completion of an approved English composition course, with a grade or B of higher.
- English language proficiency.

### Test requirement:

- Meet the Washington Education Skills Test- Basic (WEST-B) requirement. This may be met by a) taking the WEST-B exam, b) SAT minimum scores, or c) ACT minimum scores. See the WEST-B Requirement website for more information, [wce.wwu.edu/admissions/west-b-requirement](http://wce.wwu.edu/admissions/west-b-requirement). Passing scores must be on file by the application due date.

Essays and statement of purpose.

Letters of reference.

Interview by Secondary Education faculty. Details will be provided after application deadline.

### Important Application Dates:

- Bellingham location
  - Fall quarter: February 1
  - Winter quarter: September 1
- Everett location
  - February 1: In odd-numbered years (e.g., 2017, 2019) cohorts start in the Summer; In even numbered years (2018, 2020) cohorts start in the Fall.
  - This program is located on the Everett Community College campus.
  - Late applications accepted on a space-available basis.

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### Requirements Upon Program Admission

Upon acceptance, each candidate is assigned an education graduate faculty advisor. All newly accepted teacher education candidates must attend the mandatory orientation and advising session before beginning first quarter classes. Candidates may be dropped from Secondary Education for failing to attend the required orientation. Candidates admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

- Completion of a Pre-Residency Clearance through the Office of Superintendent of Public Instruction and a fingerprint background check as described in Character and Fitness (see catalog page for Secondary Education).
- Completion of the Woodring College of Education Prevention of Sexual Harassment Training.
- Completion of the Woodring College of Education Blood-Borne Pathogens Training.
- Completion of the Secondary Education Supplemental Application/Student Conduct Requirements and Agreement.

### General Retention Requirements

- Candidates must maintain at least a 3.0 GPA, beginning with the quarter they are notified of admission to Secondary Education and all required courses. This requirement applies even to quarters where no education courses are being taken. Candidates who fail to meet this standard will receive a letter advising them that they have been dropped from the program.
- Candidates must earn a grade of B (3.0) or better in the professional education sequence, and a C (2.0) or better in all courses required for the endorsement. See Woodring College and the Graduate School policies for more information.
- Candidates must successfully complete a minimum of one MIT program course each calendar year.
- Candidates must complete all certification and endorsement course work.
- Candidates are required to conduct themselves in a professional manner, in terms of moral code, use of written or verbal language, abstention from sexual harassment, gender, ethnic and racial bias.

### Program Completion

To qualify for program completion and recommendation for state of Washington residency certification, candidates must complete the following requirements and assessments:

- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship.
- Evidence of good moral character and personal fitness.
- Pass a content test for each endorsement to be earned. The content tests are Washington Educator Skills Test (WEST-E), National Evaluation Series (NES), and American Council on the Teaching of Foreign Language (ACTFL).
- Pass the education Teacher Performance Assessment (edTPA).
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES).
- Candidates who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return.
- The Graduate School policy is for program requirements to be completed within five years. While it is possible to earn the Residency teaching certificate without completing the final requirements for the MIT degree, it is not possible to earn the MIT without earning the Residency teaching certificate.

### Required Program Courses

- Research and Foundations — 12 credits
  - SEC 501 - Introduction to Educational Research Inquiry for Secondary Teachers
  - SEC 512 - Seminar in Educational Philosophy
  - SEC 513 - Seminar in Education, Culture, and Equity
- Secondary Master's Requirements — 34 credits
  - SEC 433 - Teaching and Learning Laboratory

- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- SEC 510 - Teacher As Communicator
- SEC 525 - Content Reading, Writing and Communication in Secondary Schools
- SEC 531 - Teaching Adolescents
- SEC 532 - Curriculum and Instruction in Secondary Schools
- SEC 533 - Assessment and Professional Development in Secondary Schools
- SEC 534 - Management, Motivation and Discipline in the Secondary Schools
- SPED 510 - Secondary Students With Special Needs
- I T 544 - Instructional Technology and Education
- ☐ Internship (18 credits)
  - SEC 595 - Graduate Internship
- ☐ Research Course (4 credits)
  - SEC 691 - Research Seminar

## Additional Information

### Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification.

### Non-Thesis Assessment

Master in Teaching candidates are in the non-thesis option and are required to complete a final research seminar (SEC 691) after candidates have received their Washington State Teaching Certificate. The course uses online technology to allow for candidates to complete the requirement off-site.

### Second Master's Degree

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information is subject to change.

## Minor

### Education and Social Justice Minor

Combined minor offered by Woodring College of Education, Fairhaven College of Interdisciplinary Studies and American Cultural Studies Program

### 32 Credits

#### Introduction

The Education and Social Justice Minor helps prepare youth workers, professional educators, counselors, and community organizers to understand and effectively use social justice frameworks, critical reflection and praxis to address equity issues in formal and informal educational settings, nonprofit, public service, and private organizations.

Key concepts that thread through the program include: critical and decolonizing theories and pedagogies, studies of the social and political context of education in its broadest sense, the construction of individual and

## SECONDARY EDUCATION

collective identities, systems and mechanisms of social and cultural reproduction, critical consciousness, and resources, forms of resistance and processes of empowerment.

### Contact Information

#### Director of the Education and Social Justice Minor

Verónica N. Vélez

360-650-4404

Veronica.Velez@wwu.edu

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students declare the minor with Verónica Vélez.

### Grade Requirements

A grade of S or C- or better is required for this minor.

### Program Requirements

#### Core (12 Credits)

- EDUC 411 - Education and Social Justice
- FAIR 314E - Critical Pedagogy
- One of the following:
  - AMST 301 - Comparative Cultural Studies
  - FAIR 366E - Comparative Cultural Studies

#### Electives (At least 16 Credits)

Choose at least 1 course from each category under advisement

##### Social/Political Context

ANTH 484 - Intercultural Education  
EDUC 407 - Introduction to Education for Sustainability  
FAIR 319B - Current Issues in Law (topic approved by advisor)  
FAIR 336B - Topics in Social Issues (topic approved by advisor)  
SOC 361 - Sociology of Education

One course from:

ELED 310 - Education, Culture, and Equity  
SEC 310 - Education, Culture, and Equity  
SPED 310 - Education, Culture, and Equity

##### Equity Pedagogy

FAIR 311C - Alternatives in Education  
FAIR 336B - Topics in Social Issues (topic approved by advisor)

One from:

EDUC 412 - Seminar in Educational Equity  
AMST 412 - Seminar in Educational Equity

One from:

EDUC 413 - Bridge Barriers w/Migrants  
AMST 413 - Bridging Barriers with Migrant Youth

One from:

ELED 464 - Multicultural Education for Teachers  
AMST 464 - Multicultural Education for Teachers



## Children &amp; Youth in Society

FAIR 322M - Memoirs and Memory: Childhood in America  
 FAIR 336B - Topics in Social Issues (topic approved by advisor)  
 FAIR 448T - Risk and Resilience in Adolescent Girls: Development, Culture and Identity  
 HSP 315 - Human Development and Human Services  
 PSY 332 - Adolescent Development  
 SOC 380 - Sociology of Youth  
 ECE 435 - Child Abuse and Neglect

## Identity in Culture

AMST 314 - Contemporary Latino/A Issues  
 AMST 316 - Contemporary African American Issues  
 ANTH 481 - Childhood and Culture  
 COMM 260 - Communication, Identity and Difference  
 FAIR 312E - Transgender Identities and Histories  
 FAIR 313E - Queer Issues in Education  
 FAIR 336B - Topics in Social Issues (topic approved by advisor)  
 FAIR 374B - The Cultural Creation of Identity  
 FAIR 436B - Advanced Topics in Social Issues (topic approved by advisor)  
 HSP 455 - Diversity & Social Justice Dynamics  
 PSY 119 - Psychology of Gender  
 AHE 375 - Diversity in Higher Education  
 SOC 369 - Sociology of Race and Ethnicity

## One from:

AMST 315 - Contemporary American Indian Issues  
 FAIR 399B - Contemporary American Indian Issues

## One course from:

ELED 310 - Education, Culture, and Equity  
 SEC 310 - Education, Culture, and Equity  
 SPED 310 - Education, Culture, and Equity

## Praxis/Capstone (at least 4 credits)

EDUC 400 - Directed Independent Study  
 EDUC 414 - Topics in Social Justice Education  
 FAIR 400 - Directed Independent Study  
 FAIR 414D - Special Topics in Social Justice Education

## State Issued Certificate Preparation (Non-Degree)

### Secondary Education Undergraduate and Post-Baccalaureate Professional Program

Department of Secondary Education, Woodring College of Education

**58 credits**

#### Introduction

The Secondary Education program is designed for those who want to become a teacher at the middle or high school level. The program leads to a recommendation to the state of Washington for a teaching certificate endorsed in at least one subject area. This program requires completion of the Secondary professional education course sequence, a baccalaureate degree with academic preparation for a qualifying endorsement, and a student teaching internship.

## SECONDARY EDUCATION

### Why Consider a Secondary Education Undergraduate and Post-Baccalaureate Professional Program?

Teaching today is more and more focused on ensuring student learning. The benchmark of great teaching is student learning. However, this is a challenge. Teaching and learning are collaborative and reciprocal; it is an on-going process, requiring openness to new ideas. No other profession allows you to engage with a subject matter that you enjoy every day, and work with youth to help them think and learn with you. Teachers have opportunities to go beyond content, and create a classroom environment that fosters students to learn and share diverse viewpoints and perspectives about the content and skills they are learning. Plus, you are able to see firsthand when students understand for the first time a new idea or phenomenon. We hope to prepare teachers who are able to foster creativity, transform the status quo, and develop a classroom community of learners. Teaching will transform you and serve the next generation of citizens in our democracy.

#### Contact Information

360-650-3327

<http://wce.wvu.edu/sec/secondary-education>

#### Sample Careers

Secondary level (middle or high school) teacher

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

See the Department of Secondary Education catalog for program admission, completion, and teacher certification information.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the Secondary Education professional program and in all courses required for the endorsement.

### Requirements

- SEC 303 - Teaching Adolescents: Development and Identity
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching and Learning Laboratory
- SEC 435 - Secondary Practicum I
- SEC 436 - Secondary Practicum II
- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

Academic content methods courses are required for all major endorsement areas. For specific course numbers and schedule information, students are advised to contact their academic major department advisor.

## Secondary Education Courses

### SEC 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### SEC 303 - Teaching Adolescents: Development and Identity

Study of adolescents in educational and community settings. Application of current theories of adolescent development in secondary classrooms and community contexts. Engage with the wide range of issues that affect the developing adolescent, including language, culture, identity, inequity, racism, media, family, and community factors. Develop skills to collaborate with families and community agencies to support student learning. Includes service-learning component.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of department chair.

**Credits:** 4

**Grade Mode:** Letter

### SEC 310 - Education, Culture, and Equity

Issues of culture and social justice as they impact education, schools, and teaching. Includes a service learning component.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor or department chair.

**Credits:** 4

**Grade Mode:** Letter

### SEC 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### SEC 410 - Dynamics of Teaching

Focus on ideas for communicating effectively in schools/classrooms. Oral, visual, and listening communication skills will be examined as part of the teaching/learning process.

**Prerequisites & Notes:** Admission to Secondary Education.

**Credits:** 2

**Grade Mode:** Letter

### SEC 411 - Philosophical Foundations of Education

This course examines the central concepts, basic premises and historical underpinnings that frame contemporary ideas of education and teachings practice.

**Prerequisites & Notes:** SEC 410

**Credits:** 4

**Grade Mode:** Letter

### SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools

Developmental reading, writing and learning skills and strategies specific to content area instruction in the secondary school. Includes techniques for assessing texts, students' literacy levels; designing appropriate instruction; evolution of literacy definitions, academic language, and the integration of reading and writing with current K-12 Content Standards for instruction and assessment. May include field experience.

**Credits:** 4

**Grade Mode:** Letter

### SEC 426 - Social Studies for the Secondary School

Social studies methods, resources, curriculum, objectives, planning. For secondary certification.

**Prerequisites & Notes:** SEC 431 or SEC 533 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards

An exploration of secondary curricula, lesson planning, instructional strategies and their relationship to assessment and classroom management. Introduces methods to infuse multicultural perspective into instruction and use of multicultural educational resources.

## SECONDARY EDUCATION

**Prerequisites & Notes:** Admission to Secondary Education, co-req: SEC 410.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 431 - Secondary School Methods II - Assessment and Long Term Planning**

Develop professional practices that align long-range planning with assessment strategies. Develop unit plans and collect evidence of student learning through formative and summative assessment. Articulate that planning and assessment are linked to: classroom and time management; differentiating instruction; problem-based learning and culminating projects; and, community contexts. Discuss field experiences.

**Prerequisites & Notes:** SEC 410 and SEC 430 (or equivalent); co-requisite: SEC 425 and SEC 435.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 432 - Secondary School Methods III - Management, Motivation and Discipline**

Study of theories of behavior management, motivation, and disciplinary approaches. Exploration of family and community contexts and their implications for student behavior.

**Prerequisites & Notes:** SEC 430, SEC 431; co-requisite: SEC 436.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 433 - Teaching and Learning Laboratory**

Opportunities to collaborate, co-teach, deepen understanding of school culture, and actively facilitate student learning through peer, instructor, and self-evaluations. S/U grading.

**Credits:** 1

**Grade Mode:** S/U

### **SEC 434 - Service Learning**

Introduction to the pedagogy of service learning. Addresses the definition, rationale, service-learning techniques, and assessment. Students articulate their own proposed service-learning curriculum. A 2-credit option for the course includes field-based practicum working with a school that is implementing a service-learning program. S/U grading.

**Credits:** 1-2

**Grade Mode:** S/U

### **SEC 435 - Secondary Practicum I**

Assigned placement in middle or high school with opportunities to collaborate, co-teach, deepen understanding of school culture, build relationships with students, and actively facilitate student learning. S/U grading.

**Prerequisites & Notes:** SEC 425 or SEC 525, SEC 431 or SEC 533; or permission of instructor.

**Credits:** 2

**Grade Mode:** S/U

### **SEC 436 - Secondary Practicum II**

Assigned placement in middle or high school with opportunities to collaborate, co-teach, deepen understanding of school culture, build relationships with students, and actively facilitate student learning. S/U grading.

**Prerequisites & Notes:** Co-requisites: SEC 432 or SEC 534; or instructor permission.

**Credits:** 1

**Grade Mode:** S/U

### **SEC 450 - Introduction to Middle Schools**

Designed to give students an overview of middle school curriculum and instruction. Examines various forms of curricula currently used in middle schools, developmental issues concerning middle school students and appropriate instructional strategies. Provides an opportunity to closely examine issues through on-site visits to middle schools in the area.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 451 - Curriculum and Instruction in Middle Schools**

Interdisciplinary middle school curricula; team planning strategies; thematic unit and lesson development; instructional and skill building strategies.

**Prerequisites & Notes:** EDF 310, PSY 351; PSY 316 or PSY 352 or PSY 353; (SEC 410 for SEC students)

**Credits:** 4

**Grade Mode:** Letter

### **SEC 452 - Intensive Middle School Practicum**

In-school observation with a focus on the needs of early adolescents; assisting teachers in their classrooms. Reflective journal writing and individual inquiry projects required. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College of Education and SEC 450.

**Credits:** 3  
**Grade Mode:** S/U

**SEC 464 - Multicultural Education for Teachers**

Preparation for teaching in a multicultural society. Participants will learn how to design a curriculum that reflects diversity and an instructional methodology that promotes the learning of diverse students.

**Credits:** 4  
**Grade Mode:** Letter

**SEC 495 - Internship - Secondary**

Supervised teaching experience to develop and demonstrate teaching competence at the junior high/middle school or senior high school level. Interact with diverse students and utilize planning and teaching strategies which attend to needs of diverse populations. S/U grading.

**Prerequisites & Notes:** recommended for supervised teaching  
**Credits:** 18  
**Grade Mode:** S/U

**SEC 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**SEC 501 - Introduction to Educational Research Inquiry for Secondary Teachers**

History, paradigms, and theories of action research in school settings. Examining and interpreting information about student performance; designing and planning school-based inquiry to improve professional teaching practice. May include community service.

**Prerequisites & Notes:** SEC 531 or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

**SEC 510 - Teacher As Communicator**

Methods and means of becoming a more effective communicator. Examination and practice of oral, visual and listening communication skills as part of

the teaching/learning process. Review of current research in the area of teaching communication practice.

**Prerequisites & Notes:** Admission to graduate program or permission of program advisor; co-requisites: SEC 531 and SEC 532

**Credits:** 2  
**Grade Mode:** Letter

**SEC 512 - Seminar in Educational Philosophy**

Examines the central concepts, basic premises and underlying assumptions of controversial issues in contemporary educational practice.

**Prerequisites & Notes:** Admit to Secondary MIT or instructor permission  
**Credits:** 4  
**Grade Mode:** Letter

**SEC 513 - Seminar in Education, Culture, and Equity**

This seminar examines the larger cultural issues affecting education within social, political and social justice frameworks.

**Credits:** 4  
**Grade Mode:** Letter

**SEC 524 - Seminar in Secondary School Language Arts Curriculum**

Planning and developing curriculum in language, literature and composition. Advanced study in specialized curriculum design and materials.

**Credits:** 2-4  
**Grade Mode:** Letter

**SEC 525 - Content Reading, Writing and Communication in Secondary Schools**

Techniques for integrating state and national standards in reading, writing and communication into the various subject areas taught in secondary schools. Strategies for assessing, teaching, and supporting students of diverse skill levels in literacy and with special needs through the context of content-area courses. May include a supervised field experience.

**Prerequisites & Notes:** Co-requisites: SEC 533 and SEC 435; or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

**SEC 531 - Teaching Adolescents**

Advanced study of adolescents in educational settings. Application of the biopsychosocial

## SECONDARY EDUCATION

theories of development of the adolescent to secondary classroom teaching and learning. Define and examine multicultural issues and their effect on the developing adolescent. Communicate and interact with parents and community agencies to support student learning. Includes community service learning component.

**Prerequisites & Notes:** Program advisor permission; co-requisites: SEC 510 and SEC 532.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 532 - Curriculum and Instruction in Secondary Schools**

Planning and development of curriculum. Advanced study of curriculum design, instructional strategies, unit planning and lesson design. Emphasis on current studies and trends. Introduces methods to infuse multicultural perspective into instruction and the use of multicultural educational resources. Independent research.

**Prerequisites & Notes:** Admission to Secondary MIT or permission of instructor; co-requisites: SEC 510 and SEC 531.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 533 - Assessment and Professional Development in Secondary Schools**

Design effective lessons, study a variety of assessment strategies. Create curricula and assessments that address and support the many aspects of diversity. Student portfolio review, certification requirements, legal rights and responsibilities of the profession.

**Prerequisites & Notes:** SEC 532; co-requisites: SEC 435 and SEC 525; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 534 - Management, Motivation and Discipline in the Secondary Schools**

Theories of adolescent development, including issues of diversity as a basis for creating effective learning environments. Emphasis on classroom models of management, creating an individual management plan, and the importance of student motivation.

**Prerequisites & Notes:** SEC 533; co-requisite: SEC 436; or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 555 - Middle School Curriculum Designs and Instructional Strategies**

Current trends in middle-level education; includes a review of developing curriculum ideas endorsed by the National Middle School Association.

Physical, social and emotional growth of early adolescents; instructional strategies for middle-level schools; requires topical or action research project.

**Prerequisites & Notes:** SEC 531; co-requisite: SEC 452 or SEC 434

**Credits:** 4

**Grade Mode:** Letter

### **SEC 580 - Seminar in Secondary Curriculum**

Historical and philosophical perspectives on school curriculum as these relate to modern curricula.

**Credits:** 4

**Grade Mode:** Letter

### **SEC 582 - Analysis of Research in Secondary Education**

Examination and analysis of research related to contemporary issues in secondary education.

**Prerequisites & Notes:** EDU 501

**Credits:** 4

**Grade Mode:** Letter

### **SEC 590 - Seminar in Analyzing Teaching and Supervision**

Advanced studies in the principles of supervision; utilization of instructional resources and the evaluation and improvement of teaching.

**Prerequisites & Notes:** SEC 481 or department permission

**Credits:** 3

**Grade Mode:** Letter

### **SEC 595 - Graduate Internship**

Supervised teaching experience to develop and demonstrate teaching competence at the middle or senior high school level. Interact with diverse students and utilize planning and teaching strategies which attend to needs of diverse populations. S/U grading.

**Prerequisites & Notes:** department permission

**Credits:** 18

**Grade Mode:** S/U

### **SEC 598 - Advanced Practicum: Secondary Education**

Supervised teaching performance. Participants develop plans and procedures designed for the improvement of instruction and submit a plan to

the course instructor and appropriate public school authority for classroom implementation and evaluation. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** graduate advisor permission

**Credits:** 2-12

**Grade Mode:** S/U

### **SEC 639 - Current Topics in Education**

Studies of current topics in Secondary Education.

**Prerequisites & Notes:** MA degree; instructor permission

**Credits:** 1-5

**Grade Mode:** Letter

### **SEC 690 - Thesis**

Research study under the direction of a faculty committee. S/U grading.

**Prerequisites & Notes:** advancement to candidacy; graduate committee approval

**Credits:** 1-9

**Grade Mode:** S/U

### **SEC 691 - Research Seminar**

Graduate research under the direction of a program advisor/committee. S/U grading.

**Prerequisites & Notes:** Graduate committee/program advisor approval.

**Credits:** 4

**Grade Mode:** S/U

# Special Education and Education Leadership

## Introduction

The Department of Special Education & Education Leadership is comprised of three components: Special Education Programs, Educational Administration Programs, and Compass 2 Campus (C2C), a mentoring component.

The courses of study in the Department of Special Education and Education Leadership are designed to prepare thoughtful, knowledgeable, and effective special education teachers, district and school leaders, and community leaders for a diverse society. Consistent with state and national standards, the curricula for the programs are carefully sequenced, grounded in current research on effective teaching, learning, and leadership.

Special Education offers professional education programs that lead to recommendation to the Office of the Superintendent of Public Instruction (OSPI) for residency teacher certification in the state of Washington. The programs include the following: (a) Special Education and Elementary Education (Dual Endorsement), (b) Special Education and Content (Dual Endorsement), (c) Early Childhood Special Education P-3 and Early Childhood Education P-3 (Dual Endorsement), and (d) Special Education and Content Endorsement for Post-baccalaureates. Practical experience with children and youth is emphasized throughout the programs through a series of carefully designed and sequenced practica. Special Education programs include a significant amount of training in best practices with focus upon Curriculum-Based Evaluation (CBE) and Response to Intervention (RtI).

Special Education also offers two additional non-certification Bachelor of Arts in Education: (a) Early Childhood Special Education, BAE and (b) Exceptionality and Disability, BAE. Furthermore, Special Education offers an endorsement option. (Please see program descriptions for further information.)

Educational Administration is composed of masters and/or residency administrator programs that focus upon application of theory to the building-based environment. The programs are highly relational and professionally supportive. The programs emphasize leadership and management related to curriculum, school instruction, personnel, staff/community relations, financial, and legal matters. Masters and residency administrator certificate (principal) programs are

offered in Bellingham, Bremerton, Everett, and Seattle. The initial administrator certificate (superintendent) program is offered in Everett. Candidates are directed to the Graduate School section of this catalog for more information. The program office is located in Miller Hall 417, phone 360-650-3708, toll-free 866-913-3323; e-mail EdAdmin@wwu.edu.

The Western Washington University Compass 2 Campus program is designed for University students to gain understanding of education systems and the role education plays in a diverse society through course work and the mentor process. Furthermore, Compass 2 Campus is designed to increase access to higher education by providing an opportunity for 5th-12th grade students from traditionally underrepresented and diverse backgrounds in Whatcom and Skagit counties to be mentored by university students.

We, in the Department of Special Education and Education Leadership at Western Washington University, believe that all people can live, learn, play, and work together in inclusive communities. Our mission is consistent with the mission of Woodring College of Education:

- Construct, transform, and convey knowledge by integrating research, theory, and practice,
- Cultivate student growth through extensive community and school engagement in collaboration with exemplary practicing professionals,
- Act with respect for individual differences, including taking a strengths-based view,
- Develop collaborative partnerships that promote the learning and well-being of individuals, families, and the community,
- Evaluate processes and outcomes to ensure continual program improvements.

## Information

Individuals interested in teacher certification can obtain information from the website at [wce.wwu.edu/admission](http://wce.wwu.edu/admission). Inquiries should be directed to Woodring College Teacher Education Admissions, Student Services, Miller Hall 150, phone 360-650-3313, e-mail address [TeacherEd.Admission@wwu.edu](mailto:TeacherEd.Admission@wwu.edu). Written inquiries may be addressed to Teacher Education Admissions, Western Washington University, MS-9090, 516 High St., Bellingham, WA 98225-9090.

Information about special education programs may be obtained by visiting the department website at [wce.wwu.edu/sped/special-education](http://wce.wwu.edu/sped/special-education). Interested applicants are encouraged to visit the faculty regarding these programs. Appointments can be made by phone (360-650-3330), by visiting the



department in Miller Hall 200, or by e-mail to Pam.Hamilton@wwu.edu.

Information about Educational Administration Programs may be obtained by contacting Kimberly Caulfield, Program Manager at 360-650-3708 or at Kimberly.Caulfield@wwu.edu. Information can also be found on the program's website at [wce.wwu.edu/edad/educational-administration](http://wce.wwu.edu/edad/educational-administration).

Graduate programs in Special Education are currently in moratorium. Those persons interested in graduate programs in special education should consult the Graduate School section of this catalog or contact the Graduate School at 360-650-3170, e-mail [graduate.school@wwu.edu](mailto:graduate.school@wwu.edu). Written inquiries may be addressed to the Graduate School, Old Main 530, MS-9037, Western Washington University, 516 High St., Bellingham, WA 98225-9037.

## Faculty

**GAIL COULTER** (2008) Chair and Professor. BA, MA, California State University-Chico; PhD, University of Oregon.

**WARREN ALLER** (1993) Senior Instructor. BS, University of Idaho; MEd, Western Washington University.

**TIM BRUCE** (2016) Assistant Professor. BA, Whitworth College; M.Ed, Whitworth College; PhD, Gonzaga University.

**AUMONY DAHL** (1999) Senior Instructor. B.A., Western Washington University; M.Ed, Western Washington University.

**RICHARD HANSON** (2009) Senior Instructor. B.A., University of Puget Sound; BAE, MA, Western Washington University.

**JOSEPH HUNTER** (2012) Assistant Professor. BSEd, MSED, Southern Oregon State College; EdD, Portland State University.

**KEITH J. HYATT** (2002) Professor. BS, MS, University of Idaho; EdS, EdD, University of Nevada-Las Vegas.

**BRIDGET KELLEY** (1995) Associate Professor. BS, University of Pittsburgh; MEd, Arizona State University; PhD, University of Washington.

**CHUCK LAMBERT** (2004) Professor. BEd, Gonzaga University; MA, San Francisco State University; PhD, Ohio State University.

**DONALD E. LARSEN** (2005) Professor & Director of Education Administration (2005) BA, Seattle Pacific University; MA, Pacific Lutheran University; PhD, Washington State University.

**JENNY PARKER** (2003) Senior Instructor. BA, University of Washington; MEd, Antioch University, Seattle; EdD, University of Washington.

**AARON PERZIGIAN** (2015) Assistant Professor. BS, Edgewood College, MS, PhD, University of Wisconsin-Madison.

**WAYNE T. ROBERTSON** (1992) Senior Instructor. BAE, MEd, Central Washington University; EdD,

University of Washington.

**LEANNE K. ROBINSON** (2002) Professor. BAE, Central Washington University; MEd, Western Washington University; PhD, Washington State University.

**ROGER H., SASNETT** (2012) Assistant Professor, MEd, Central Washington University, PhD., Ohio State University.

**LINDA SCHLEEF** (1997) Senior Instructor. BAE, MEd, Western Washington University.

**BETH STICKLEY** (2003) Senior Instructor. BA, University of Northern Iowa; MEd, Western Washington University.

**TRACY THORNDIKE** (2005) Associate Professor. BA, MS, Western Washington University; PhD, University of Nebraska-Lincoln.

## Special Education Programs

Students at Western Washington University may choose from five initial teacher preparation options that result in residency certification with an endorsement to teach special education in the state of Washington or from two non-teacher certification options.

### Non-teacher certification options

The below programs do not lead to teacher certification. Graduates typically seek employment in private child development centers, government agencies, or in school district positions that do not require certification.

- **Early Childhood Special Education BAE**  
Completion of this program results in a BA in Education only. Students in this major typically seek employment in private child development centers and governmental agencies; they do not qualify for a teaching certificate
- **Exceptionality & Disability BAE**  
Completion of this program results in a BA in Education. Students who complete this major typically seek employment in non-school settings, such as health and human services and non-profit organizations; they do not qualify for a teaching certificate.

### Teacher certification options

- **Early Childhood Special Education P-3 & Early Childhood Education P-3 (Dual Endorsement), BAE**  
Completion of this major and required professional education courses results in BA in Education with recommendation for a

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

Washington State teaching certificate endorsed in Early Childhood Special Education P-3 and Early Childhood Education P-3.

- **Special Education P-12 & Elementary Education (Dual Endorsement), BAE**  
Completion of this program results in BA in Education with recommendation for a Washington State teaching certificate endorsed in Special Education P-12 and Elementary Education K-8
- **Special Education P-12 plus Content Endorsement, BAE**  
Completion of this program results in BA in Education with recommendation for a Washington State teaching certificate endorsed in Special Education P-12 and a content endorsement (students must earn a second endorsement in an area other than Special Education, Early Childhood Special Education, Bilingual Education, or English Language Learner). View the list of options.
- **Special Education & Content Endorsement for post-baccalaureates**  
Completion of this program results in recommendation for a Washington State teaching certificate with an endorsement in Special Education P-12 and a content endorsement (students must earn a second endorsement in an area other than Special Education, Early Childhood Special Education, Bilingual Education, or English Language Learner). View the list of options.

Teachers who hold a valid and endorsable Washington State certificate may earn an endorsement in Special Education (P-12) by completing core coursework requirements.

The Special Education and Early Childhood Education Special Education Majors are academically rigorous programs aligned with the content and performance standards of the Council for Exceptional Children.

### Certification

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with Washington State K-12 Learning Standards, and require candidates to demonstrate that they have made a positive impact on student learning. First-level residency certification programs are designed around the standards of foundational knowledge, effective teaching and professionalism. Second-level professional certification programs are designed around the standards of effective

teaching, professional development, and professional contributions. Teacher certificates are issued by the state, upon the recommendation of the regionally accredited college or university where the candidate completed a state-approved preparation program.

**State requirements for teacher certification at the time of completion of a student's program will supersede those outlined in this catalog.** These changes may affect the time it takes for a student to complete the teacher education program.

### Residency Teacher Certification

The first-level residency certificate is awarded to new teachers upon the completion of these general requirements:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness

Candidates for residency certification must pass a content knowledge test to earn an endorsement. WWU requires submission of a passing content test score for each endorsement to be earned, before commencement of the student teaching internship. For current information on test requirements, registration, fees, and test dates and locations, refer to the Content Test Resource Website, [wce.wwu.edu/cert/content-test-resource-site](http://wce.wwu.edu/cert/content-test-resource-site). Candidates for residency certification must also complete the state of Washington edTeacher Performance Assessment (edTPA) during the student teaching internship. Application for the residency certificate is made to Woodring College Teacher Certification, Student Services, Miller Hall 150, 360-650-4930, no later than three months prior to the start of the internship.

The first-issue residency certificate has no defined expiration date. It is valid until the teacher completes at least 1.5 years of successful teaching experience accumulated over a minimum of two years in a state-approved public, private or state-operated education program. A three-year residency certificate is then issued by the state. The timeline for earning a second level professional certificate begins with the re-issued residency certificate.

## Professional Teacher Certification

The second-level professional certificate is awarded to experienced teachers who hold a valid residency certificate, and who pass the Washington ProTeach Portfolio assessment or earn national board certification through the National Board for Professional Teaching Standards. For further information on professional certification requirements contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

## Endorsements

An endorsement identifies the subject matter a teacher is prepared and authorized by the state to teach. One qualifying endorsement is required for residency certification. Courses required for a teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better.

## Program Length

Time to completion varies according to the program. For example, the Exceptionality and Disability, BAE is approximately six quarters after completion of the General University Requirements (GURs). Special Education teacher certification programs after completion of all General University Requirements (GURs) or an Associate of Arts degree from a state of Washington community college, ranges from two to three years. Students earning both Special Education P-12 and Elementary Education endorsements should plan on approximately 10 academic quarters for completion. Western students who apply to Teacher Education programs should have satisfied most of the GURs. Transfer students from a community college should have satisfied all of the GURs and preferably have received an AA degree.

## Admission Requirements

All applicants to the Woodring College of Education undergraduate and post-baccalaureate teacher education programs must be formally admitted to and currently enrolled at Western Washington University or must apply to Western for the same quarter they apply to teacher education. Woodring College teacher education program application materials are available in Miller Hall 150 and are also printable from [wce.wvu.edu/admission](http://wce.wvu.edu/admission).

The requirements listed below are minimum application criteria. Enrollment restrictions apply to teacher education programs. Meeting the following requirements makes the applicant eligible for admission consideration but does not guarantee admission. Students who meet all criteria are

further evaluated to determine the most qualified applicants. Students will be evaluated on all information provided with the application, including required copies of transcripts from all prior colleges.

Application criteria:

- Completion of at least 45 quarter credits of college-level course work
- Cumulative grade point average of 2.75 or higher overall college-level course work or over the last 45 credits.
- Meet the basic skills requirement. This may be met by: a) Taking the Washington Educator Skills Test-Basic (WEST-B), b) SAT minimum scores, c) ACT minimum scores. See the WEST-B website for details: [wce.wvu.edu/admissions/west-b-requirement](http://wce.wvu.edu/admissions/west-b-requirement). Passing scores must be on file by the application due date.
- Completion of an English composition course with a grade of B- (2.7) or higher
- It is recommended that all students seek advisement from the special education department prior to submitting an application to best satisfy the admissions criteria. Experiences with children, strong interpersonal communication skills, and other skills helpful in teaching children are considered.

## Advisement and Orientation

Upon acceptance, each student is assigned an advisor. **Additionally, all accepted students must attend required orientations.** Students may be dropped from Special Education Programs for failing to attend the required orientation.

## Program Continuation

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program. These include all clearances and background checks.

## Requirements Upon Program Admission

- Institutional Application for a Teacher's Certificate and Character and Fitness Supplement, and fingerprinting by the Washington State Patrol as described below under Character and Fitness
- Woodring College of Education Professionalism Orientation
- Woodring College of Education Prevention of Sexual Harassment Training

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- Woodring College of Education Blood-Borne Pathogens Training

## Character and Fitness

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Students provide evidence of character and fitness through two separate but related processes:

- Institutional Application for a Teacher's Certificate and Character and Fitness Supplement, provided to students upon acceptance into the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with "yes" responses must report to the certification officer in Miller Hall 150 and gain character and fitness clearance before registering for classes.
- Washington State Patrol and FBI background checks through a fingerprinting process. Procedures and fee information are provided to students upon acceptance into the program

**No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and then cleared by the Washington State Office of the Superintendent of Public Instruction.**

Clearances are valid for specified time frames. Students must maintain character and fitness clearance until they have been recommended for a residency teacher certificate following completion of the teacher education program.

In addition to the Washington state character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct Requirements and Agreement, which is submitted with program application materials. Students must also abide by the Department of Special Education Professionalism Expectations document provided at the mandatory orientation.

## General Retention Requirements

- Students must maintain at least a 2.75 quarterly GPA beginning the quarter they are notified of admission to Special Education. This requirement applies even to quarters when no education courses are being taken. Students who fail to meet this

standard will receive a letter advising them they have been dropped from the program

- Students must earn a grade of C (2.0) or better in the professional education sequence and in all courses required for the endorsement and the academic major. If a grade earned is below a "C" in endorsement or major courses, the student will need to retake the course. It will be based on a space available during Phase III
- Students must understand and demonstrate a high level of competence in use of the English language. Those who have difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship
- Students must complete all certification and endorsement course work prior to the internship
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return

## Program Completion

To qualify for program completion and recommendation for state of Washington residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- Passing score on the state-required content knowledge test(s) for each endorsement, such as West E and/or NES
- Completion of the education Teacher Performance Assessment (edTPA).
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES)

## Other Special Education Information

### Internship

An important experience for teaching certification candidates is the student teaching internship. During the internship, students teach under the direct supervision of a certified teacher in a school setting. The internship(s) involve intensive practice in integrated methods, content area knowledge, and classroom organizational strategies.

Early Childhood Special Education majors seeking certification are required to complete one quarter of internship for 16 credits.

Students completing the Special Education and Elementary Education Dual Endorsement program must complete two internships, one in a Special Education setting and one in a general elementary education classroom. The one-quarter Elementary internship is completed **after** the one-quarter Special Education internship.

Students completing SPED plus Content Endorsement, complete one internship.

The Office of Field Experiences (OFE) is the service agency of the Woodring College of Education that seeks placements for prospective interns. Students apply for their internship around January prior to a fall internship start quarter, or April prior to a winter or spring internship start quarter. Specific dates for informational meetings and application deadlines are published on the OFE website, [wce.wvu.edu/ofe/office-field-experiences](http://wce.wvu.edu/ofe/office-field-experiences).

Students must have completed Prevention of Sexual Harassment Training, blood-borne pathogens training, a residency teacher certificate application packet including credit evaluation, and Washington State Patrol/FBI fingerprinting before OFE will seek an internship placement.

Before commencement of the internship, passing scores on the WEST-E or NES for each endorsement must be submitted, all education and endorsement course work and practica must be completed, and fingerprint/character and fitness clearance must be valid. Students who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements. Placement in a school is contingent upon the following:

- Fulfillment of all program requirements (satisfactory academic work, education and endorsement program course work and training, practica, and faculty recommendations, satisfactory completion

of Assistive Technology E-Portfolio and required professional activities)

- Submission of passing scores on the state-required content knowledge test(s) for each endorsement
- Availability of placements and supervision in specific subjects and grade levels
- Acceptance by P-12 school personnel
- Fingerprint/character and fitness clearance through the point of certification

Students are required to interview with the public school teacher to whom they will be assigned, for final approval of placement. OFE will make every effort to arrange up to three initial interviews but does not guarantee an interview.

Any subsequent placement after a voluntary or non-voluntary withdrawal from an internship will be granted only by faculty recommendation following a case conference.

Time commitment to the internship requires seven clock hours daily Monday through Friday plus class preparation time, seminars and responsibilities outside of school. Students may not register for other course work or hold jobs or other time-demanding commitments without the approval of the department and OFE.

Placement locations are listed on the map available in the department office or the Office of Field Experiences. OFE reserves the right to place students anywhere within the WWU service area.

For further information, contact the Woodring College of Education, Office of Field Experiences, Student Services, phone 360- 650-3310, Miller Hall 150.

### Educational Administration Programs

The Educational Administration Programs are designed to prepare principals, superintendents, and effective P-12 district level leaders for a diverse society. Upon successful completion of the program, candidates receive a master's degree and/or are recommended for Residency Administrator Certificate (Principal), or the Initial Administrator Certificate (Superintendent). Consistent with national and state standards for P-12 school administrators, the program emphasizes leadership and management related to curriculum, school instruction, personnel, staff/community relations, financial and legal matters. Master's and residency administrator certificate (principal) programs are offered in Bellingham, Bremerton and Seattle; the initial administrator certificate (superintendent) programs is offered in Everett. Candidates are directed to the Graduate School section of this catalog for more information; the program office is located in Miller Hall 417, phone

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

360-650-3708, toll-free 866-913-3323; e-mail  
EdAdmin@wwu.edu.

**Note:** Evidence of good moral character and personal fitness is required if the candidate does not hold a valid Washington educator certificate at

the time of recommendation for the administrator certificate. Instructions and forms for a Pre-Residency Clearance and Fingerprinting Background Check are available through the certification office: [wce.wwu.edu/cert/character-and-fitness](http://wce.wwu.edu/cert/character-and-fitness).

## Bachelor of Arts in Education

### Early Childhood Special Education P-3 and Early Childhood Education P-3 (Dual Endorsement), BAE

Department of Special Education, Woodring College of Education

**157-159 credits**

#### Introduction

Special Educators need to have extensive knowledge in four areas: they need to know about students and how they learn; they need to know about effective instruction; they need to know about the content of the lessons they will teach; and, they need to know about the context (social, legal, and political) in which they will work. Therefore, training to become a Special Educator will include work in each of these areas. The program includes coursework and extensive supervised practicum experiences in the public schools. The program is rigorous and the expectations are high. However, the rewards are also high. This program will prepare you to be an excellent teacher in whatever position you eventually choose. Our graduates are actively recruited by school districts to work in a variety of rewarding special education settings.

This plan of study is designed to prepare personnel to work with children from birth through eight years who have been identified as at-risk for developmental delay and disability and with their families. The major combines studies in Early Childhood and Special Education and leads to recommendation for a Washington State teaching certificate with endorsement in Early Childhood Special Education, Preschool through Grade 3 (P-3). Students may choose to complete additional coursework required to add the P-12 Special Education endorsement or the Early Childhood Education (P-3) endorsement.

#### Why Consider a Dual Endorsement in Early Childhood Special Education P-3 and Early Childhood Education P-3 Major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

#### Contact Information

Department Chair	Program Advisor	Teacher Education Admissions
Gail Coulter	Keith Hyatt	Miller Hall 150
Miller Hall 201E	Miller Hall 201C	360-650-3313
360-650-2667	360-650-2353	<a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>
<a href="mailto:Gail.Coulter@wwu.edu">Gail.Coulter@wwu.edu</a>	<a href="mailto:Keith.Hyatt@wwu.edu">Keith.Hyatt@wwu.edu</a>	

#### Sample Careers

Special Education Pre-School Teacher | Early Interventionist | Inclusive Classroom Teacher | Family Resource Coordinator | Behavior Interventions Specialist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process)

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),
- cumulative grade point average of 2.75 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher,
- Meet the Washington Education Skills Test-Basic (WEST-B) requirement. This may be met by a) passing the West-B exam, b) SAT minimum scores, c) ACT minimum scores. See the WEST-B Requirement website for more information, [wce.wvu.edu/admissions/west-b-requirement](http://wce.wvu.edu/admissions/west-b-requirement). Passing scores must be on file by the application due date.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. For more information on the application process, contact Teacher Education Admissions in Miller Hall 150, call 360.650.3313, or visit the website at [wce.wvu.edu/admissions/teacher-education](http://wce.wvu.edu/admissions/teacher-education).

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA including the quarter in which the application was reviewed by the Department of Special Education. The State of Washington requires students to earn a "C" or better in all major endorsement and education courses.

See the Special Education and Education Leadership section of this catalog for program admission and completion requirements.

### Certification Advisement

Each student will be assigned an adviser when admitted to the Department of Special Education; the adviser for the Early Childhood major is Dr. Keith Hyatt. Students will be assisted and monitored by Dr. Hyatt on a regular basis throughout their program.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsement.

### Requirements

Major — Early Childhood Special Education (P-3): 85-87 credits

- One course from:
  - ECE 380 - Foundations of Literacy for Early Childhood Education
  - ELED 480 - Literacy: Beginning Communicators
- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- One course from:
  - ECE 434 - Environments for Early Learning
  - ECE 436 - Child Guidance: Principles and Practices
- ELED 426 - Social Studies Methods
- SPED 360 - Introduction to Special Education
- SPED 443 - Early Development Variations
- SPED 444 - Assessment and Intervention in Early Childhood Special Education
- SPED 460 - Interventions for Classroom Management
- SPED 464 - Disability Law and IEP
- SPED 465 - Assessment for Special Education and General Education Teachers

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- ❑ SPED 467 - Curriculum-Based Evaluation
- ❑ SPED 468 - Effective Collaboration with Families, Professionals and Community
- ❑ SPED 472 - Behavior Assessment and Intervention
- ❑ SPED 474 - Students With Complex Needs
- ❑ SPED 480 - Practicum III - Individual/Group Intervention, Reading
- ❑ SPED 483 - Reading Instruction for Students With Special Needs
- ❑ SPED 484 - Designing Written Expression Interventions
- ❑ SPED 485 - Designing Math Interventions
- ❑ SPED 486 - Case Study Applications in Special Education

### Professional Studies Core: 31 credits

- ❑ ECE 435 - Child Abuse and Neglect
- ❑ SPED 301 - Educational Psychology I: Development and Individual Differences
- ❑ SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ❑ SPED 310 - Education, Culture, and Equity
- ❑ I T 443 - Digital Decisions: Technology for Educators
- ❑ MATH 381 - Teaching K-8 Mathematics I
- ❑ SPED 420 - Effective Teaching
- ❑ SPED 440 - Practicum I - General Education

### Early Childhood Elementary Courses: 19 credits

- ❑ MATH 382 - Teaching K-8 Mathematics II
- ❑ MATH 383 - Teaching K-8 Mathematics III
- ❑ PE 345 - Physical Education for Elementary School
- ❑ SCED 480 - Science Methods and Curriculum for the Elementary School
- ❑ SCED 490 - Laboratory/Field Experience in Elementary Science

### Public School Practica and Internship — Special Education: 22 credits

- ❑ SPED 481 - Practicum VI - Individual/Group Intervention, Written Expression
- ❑ SPED 482 - Practicum VII - Individual/Group Intervention, Math
- ❑ SPED 496 - Internship - Exceptional Children/Early Childhood

## Early Childhood Special Education, BAE

Department of Special Education and Education Leadership, Woodring College of Education

### 116-118 credits

#### Introduction

This plan of study is designed to prepare personnel to work with children from birth through eight years who have been identified as at-risk for developmental delay and disability and with their families. The major combines studies in Early Childhood and Special Education.

Students in this major typically seek employment in private child development centers and governmental agencies; they do not qualify for a teaching certificate.

#### Why consider an Early Childhood Special Education major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is



much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

Contact Information		
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Gail Coulter	Keith Hyatt	Miller Hall 150
Miller Hall 201E	Miller Hall 201C	360-650-3313
360-650-2667	360-650-2353	<a href="https://wce.wvu.edu/admission">https://wce.wvu.edu/admission</a>
<a href="mailto:Gail.Coulter@wvu.edu">Gail.Coulter@wvu.edu</a>	<a href="mailto:Keith.Hyatt@wvu.edu">Keith.Hyatt@wvu.edu</a>	
Sample Careers		
Private Child Development Centers   Governmental agencies   Working with children in non-school settings		
Major/Career Resources		
<a href="http://www.wvu.edu/careers/students_choosingamajor.shtml">http://www.wvu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),
- cumulative grade point average of 2.75 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher,
- Meet the Washington Education Skills Test-Basic (WEST-B) requirement. This may be met by a) passing the West-B exam, b) SAT minimum scores, c) ACT minimum scores. See the WEST-B Requirement website for more information, [www.wce.wvu.edu/Admiss/West-B.shtml/](http://www.wce.wvu.edu/Admiss/West-B.shtml/). Passing scores must be on file by the application due date.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsement.

## Requirements

Major — Early Childhood Special Education: 85-87 credits

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  - ELED 480 - Literacy: Beginning Communicators
  - □ ECE 390 - Infant and Toddler Practicum and Seminar
  - □ ECE 391 - Preschool Practicum and Seminar
  - □ ECE 430 - Creativity & Play in ECE
  - □ ECE 431 - Fundamentals of Early Childhood Education
  - □ ELED 426 - Social Studies Methods
- One course from:
  - ECE 434 - Environments for Early Learning
  - ECE 436 - Child Guidance: Principles and Practices
  - □ SPED 360 - Introduction to Special Education
  - □ SPED 443 - Early Development Variations
  - □ SPED 444 - Assessment and Intervention in Early Childhood Special Education
  - □ SPED 460 - Interventions for Classroom Management
  - □ SPED 464 - Disability Law and IEP
  - □ SPED 465 - Assessment for Special Education and General Education Teachers
  - □ SPED 467 - Curriculum-Based Evaluation
  - □ SPED 468 - Effective Collaboration with Families, Professionals and Community
  - □ SPED 472 - Behavior Assessment and Intervention
  - □ SPED 474 - Students With Complex Needs

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- SPED 480 - Practicum III - Individual/Group Intervention, Reading
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education

Professional Studies Core: 31 credits

- ECE 435 - Child Abuse and Neglect
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- I T 443 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- SPED 420 - Effective Teaching
- SPED 440 - Practicum I - General Education

### Exceptionality and Disability, BAE

Department of Special Education and Education Leadership, Woodring College of Education

**80-85 credits**

#### Introduction

Completion of this major and the required professional education courses results in a BA in Education. Students who complete this major typically seek employment in non-school settings, such as health and human services and non-profit organizations; they do not qualify for a teaching certificate.

#### Why consider the Exceptionality and Disability Major?

Many professionals work with persons with disabilities in a variety of venues other than schools and do not require the same pedagogical knowledge base expected of special education teachers. However, to effectively advocate for and to work with individuals with disabilities, it is imperative that professionals have a solid background in a variety of topics central to the provision of supports for individuals with disabilities. We, in the Department of Special Education, believe that professionals should support individuals with disabilities in accessing inclusive community opportunities that are available to persons without disabilities. A major in Exceptionality and Disability provides foundational knowledge to professionals who interface across a variety of settings, including school, home, agencies, and community.

Contact Information		
<b>Department Chair</b>	<b>Program Advisor</b>	<b>Teacher Education Admissions</b>
Gail Coulter	Keith Hyatt	Miller Hall 150
Miller Hall 201E	Miller Hall 201C	360-650-3313
360-650-2667	360-650-2353	wce.wvu.edu/admission
Gail.Coulter@wwu.edu	Keith.Hyatt@wwu.edu	
Sample Careers		
Supported employment provider, supported living supervisor, advocate, community recreation specialist, positions with nonprofit agencies.		
Major/Career Resources		
<a href="http://www.wvu.edu/careers/students_choosingamajor.shtml">http://www.wvu.edu/careers/students_choosingamajor.shtml</a>		

#### Admission and Declaration Process

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- cumulative grade point average of 2.5 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher.

### Grade Requirements

Students must earn a grade of C (2.0) or better in all coursework.

### Major — Exceptionality and Disability: 80-85 credits

- SPED 360 - Introduction to Special Education
- SPED 420 - Effective Teaching
- SPED 440 - Practicum I - General Education  
or  
SPED 442 - Clinical Practicum
- SPED 460 - Interventions for Classroom Management
- SPED 464 - Disability Law and IEP
- SPED 465 - Assessment for Special Education and General Education Teachers
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- HLED 455 - Health Education Grades K-8
- I T 443 - Digital Decisions: Technology for Educators  
or other technology course by permission of advisor
- SPED 495 - Clinical Internship

### Choose 14 credits from the following:

- SPED 471 - Interventions for Learning and Achievement in a Diverse Classroom
- SPED 480 - Practicum III - Individual/Group Intervention, Reading
- SPED 467 - Curriculum-Based Evaluation
- SPED 481 - Practicum VI - Individual/Group Intervention, Written Expression
- SPED 482 - Practicum VII - Individual/Group Intervention, Math
- SPED 441 - Analysis and Strategies of Teaching
- SPED 442 - Clinical Practicum
- CSD 251 - Introduction to Communication Disorders
- CSD 354 - Speech and Language Development in Children
- HSP 302 - Introduction to Human Services
- HSP 311 - Health Care and Human Services
- HSP 315 - Human Development and Human Services
- HSP 325 - Interviewing and Interventions for Human Services
- HSP 410 - Mental Health: Individuals and Systems
- HSP 450 - Survey of Addictions and Dependencies
- HSP 484 - Grant Writing
- Or other courses with permission of advisor

### Special Education — P-12 and Elementary Education (Dual Endorsement), BAE

Department of Special Education and Education Leadership, Woodring College of Education

### 155 credits (major and professional program)

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

## Introduction

Special Educators need to have extensive knowledge in four areas: they need to know about students and how they learn; they need to know about effective instruction; they need to know about the content of the lessons they will teach; and, they need to know about the context (social, legal, and political) in which they will work. Therefore, training to become a Special Educator will include work in each of these areas. The program includes coursework and extensive supervised practicum experiences in the public schools. The program is rigorous and the expectations are high. However, the rewards are also high. This program will prepare you to be an excellent teacher in whatever position you eventually choose. Our dual endorsement graduates are actively recruited by school districts to teach in both elementary classrooms and special education settings.

Students seeking a bachelor's degree with teacher certification and endorsements in Special Education and Elementary Education complete the Special Education Major (P-12), Elementary Program Curriculum and Methods, the Professional Studies Core, and two internships.

## Why Consider a Dual Endorsement in Special Education P-12 and Elementary Education Major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skills and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

Contact Information		
<b>Department Chair</b>	<b>Program Advisor</b>	<b>Teacher Education Admissions</b>
Gail Coulter	Keith Hyatt	Miller Hall 150
Miller Hall 201E	Miller Hall 201C	360-650-3313
360-650-2667	360-650-2353	wce.wwu.edu/admission
Gail.Coulter@wwu.edu	Keith.Hyatt@wwu.edu	
Sample Careers		
Special Education Resource Room Teacher   Special Education Teacher   Consultant   Inclusive Classroom Teacher   Behavior Interventions Specialist   Elementary Teacher		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),
- cumulative grade point average of 2.75 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher,
- Meet the Washington Education Skills Test-Basic (WEST-B) requirement. This may be met by a) passing the West-B exam, b) SAT minimum scores, c) ACT minimum scores. See the WEST-B Requirement website for more information, [wce.wwu.edu/admissions/west-b-requirement](http://wce.wwu.edu/admissions/west-b-requirement). Passing scores must be on file by the application due date.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. For more information on the application process, contact Teacher Education Admissions in Miller Hall 150, call 360.650.3313, or visit the website at [wce.wwu.edu/admissions/teacher-education](http://wce.wwu.edu/admissions/teacher-education).

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA including the quarter in

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

which the application was reviewed by the Department of Special Education. The State of Washington requires students to earn a "C" or better in all major endorsement and education courses.

See the Special Education and Education Leadership section of this catalog for program admission, completion, and teacher certification requirements.

### Certification Advisement

Each student will be assigned an adviser when admitted to the Department of Special Education. Students will be assisted and monitored by their adviser on a regular basis throughout their programs.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsements.

### Requirements

#### Major — Special Education: 66 credits

- SPED 360 - Introduction to Special Education
- SPED 460 - Interventions for Classroom Management
- SPED 464 - Disability Law and IEP
- SPED 465 - Assessment for Special Education and General Education Teachers
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 471 - Interventions for Learning and Achievement in a Diverse Classroom
- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 476 - Practicum II - Service Delivery Models
- SPED 477 - Practicum IV - Behavior Assessment and Intervention
- SPED 478 - Complex Needs II
- SPED 480 - Practicum III - Individual/Group Intervention, Reading
- SPED 481 - Practicum VI - Individual/Group Intervention, Written Expression
- SPED 482 - Practicum VII - Individual/Group Intervention, Math
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education

#### Elementary Program Curriculum and Methods: 39 credits

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- ELED 424 - Language Arts in the Elementary Curriculum
- ELED 426 - Social Studies Methods
- HLED 455 - Health Education Grades K-8
- I T 443 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

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Professional Studies Core: 20 credits

- ❑ SPED 301 - Educational Psychology I: Development and Individual Differences
- ❑ SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ❑ SPED 310 - Education, Culture, and Equity
- ❑ SPED 420 - Effective Teaching
- ❑ SPED 440 - Practicum I - General Education

Internships — Special Education and Elementary Education: 30 credits

- ❑ SPED 494 - Internship - Elementary
- ❑ SPED 498 - Internship - Special Education

## Special Education — P-12 Outreach Program, BAE

Department of Special Education and Education Leadership, Woodring College of Education

**139-142 credits (professional program and major)**

### Introduction

Special Educators need to have extensive knowledge in four areas: they need to know about students and how they learn; they need to know about effective instruction; they need to know about the content of the lessons they will teach; and, they need to know about the context (social, legal, and political) in which they will work. Therefore, training to become a Special Educator will include work in each of these areas. The program includes coursework and extensive supervised practicum experiences in the public schools. The program is rigorous and the expectations are high. However, the rewards are also high. This program will prepare you to be an excellent teacher in whatever position you eventually choose. Our graduates are actively recruited by school districts to teach in both elementary classrooms and special education settings.

Students seeking a bachelor's degree with teacher certification and an endorsement in Special Education - P-12 through Teacher Education Outreach Programs located in Bremerton, Everett and Seattle must complete the Elementary Education Professional Program - Outreach Program and the Special Education (P-12) - Outreach Program requirements. Program coursework listed below is delivered through a cohort-based, integrated model designed specifically for outreach program sites. Graduates may earn an endorsement in special education by completing a second internship (16 credits) through the special education additional endorsement program. Courses must be completed with a grade of C (2.0) or better.

### Contact Information

#### Assistant Dean

Larry Antil  
Miller Hall 256B  
360-650-7505  
Larry.Antil@wwu.edu

#### Program Manager

Joanna Reynoso  
Miller Hall 256C  
360-650-614  
Joanna.Reynoso@wwu.edu

### Sample Careers

Elementary Teacher | Special Education Resource Room Teacher | Special Education Teacher | Consultant | Inclusive Classroom Teacher | Behavior Interventions Specialist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Before students may begin taking courses in education, they must be admitted to both Western Washington University and Teacher Education Outreach Programs. Admission to our programs occurs once a year in the fall. Program admission requirements include:

- Transferable A.A. degree from a Washington state community college, or satisfaction of Western's General Education Requirements
- Minimum grade point average of 2.75 overall or for the most recent 45 quarter credit hours

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- Meet the West-B basic skills requirement. This may be met by: a) Taking the West-B exam, b) SAT minimum scores, c) ACT minimum scores. See the West-B webpage for details: [wce.wvu.edu/admissions/west-b-requirement](http://wce.wvu.edu/admissions/west-b-requirement).
- English composition course, completed with a B- or better
- Three letters of recommendation
- Reflective essay

For more details about program admission, please see the Frequently Asked Questions page at [wce.wvu.edu/teop/teacher-education-outreach-programs](http://wce.wvu.edu/teop/teacher-education-outreach-programs).

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter after admission. The State of Washington requires students to earn a "C" or better in all major endorsement and most education courses.

See the Teacher Education Outreach Programs section of this catalog for program admission, completion, and teacher certification requirements.

### Advisement

Prospective elementary education students are invited to meet with an advisor for more information about the program (see above for site contacts). At all TEOP sites, the student advisor is the Academic Program Director. Students will be assisted and monitored by their advisors and their program coordinator on a regular basis throughout their program.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Requirements

Elementary Education Professional Program – Outreach Program: 99 credits

- ART 380 - Art Educating the Child
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 372 - Introduction to Teaching Seminar
- ELED 373 - Introduction to Teaching - Practicum
- ELED 380 - Literacy I: Foundations
- ELED 426 - Social Studies Methods
- ELED 472 - Developing Teaching Seminar
- ELED 473 - Developing Teaching - Practicum
- ELED 474 - Documenting Teaching Seminar
- ELED 475 - Documenting Teaching - Practicum
- ELED 478 - Literacy: Fluent Communicators Seminar
- ELED 479 - Literacy: Fluent Communicators - Practicum
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- I T 344 - Foundations of Technology in Teaching and Learning
- I T 442 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MUS 361 - Music for Elementary Teachers
- PE 345 - Physical Education for Elementary School

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- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 360 - Introduction to Special Education
- SPED 440 - Practicum I - General Education

### Special Education (P-12) - Outreach Program

- SPED 466 - Assessment, Evaluation and IEP
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 471 - Interventions for Learning and Achievement in a Diverse Classroom
- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 480 - Practicum III - Individual/Group Intervention, Reading
- SPED 481 - Practicum VI - Individual/Group Intervention, Written Expression
- SPED 482 - Practicum VII - Individual/Group Intervention, Math
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- Elective under advisement:
  - SPED 470 - Violent and Aggressive Youth

## Special Education — P-12 plus Content Endorsement, BAE

Department of Special Education and Education Leadership, Woodring College of Education

**109 credits (major and professional program)**  
**(plus 20-98 credits depending on content endorsement)**

### Introduction

Special Educators need to have extensive knowledge in four areas: they need to know about students and how they learn; they need to know about effective instruction; they need to know about the content of the lessons they will teach; and, they need to know about the context (social, legal, and political) in which they will work. Therefore, training to become a Special Educator will include work in each of these areas. The program includes coursework and extensive supervised practicum experiences in the public schools. The program is rigorous and the expectations are high. However, the rewards are also high. This program will prepare you to be an excellent teacher in whatever position you eventually choose. Our graduates are actively recruited by school districts to work in a variety of rewarding special education settings.

Effective September 1, 2016, teacher candidates who are earning an endorsement in Special Education are required by Washington State to earn a second endorsement in an area other than Special Education, Early Childhood Special Education, Bilingual Education, or English Language Learner.

Students seeking a bachelor's degree with recommendation for a Washington State teacher certificate and an endorsement in Special Education must complete the Special Education (P-12) major, the Professional Studies Core, the internship, and a content area endorsement under advisement. Graduates may not provide direct instruction in core academic subjects for which they do not hold a content endorsement unless they provide evidence of meeting federal Highly Qualified Teacher (HQT) requirements to teach that subject. They may, however, serve as a consultant to the teacher of record.

### Why Consider a Special Education P-12 Plus Content Endorsement Major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers



trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

Contact Information		
<b>Department Chair</b>	<b>Program Advisor</b>	<b>Teacher Education Admissions</b>
Gail Coulter	Keith Hyatt	Miller Hall 150
Miller Hall 201E	Miller Hall 201C	360-650-3313
360-650-2667	360-650-2353	<a href="https://wce.wwu.edu/admission">https://wce.wwu.edu/admission</a>
<a href="mailto:Gail.Coulter@wwu.edu">Gail.Coulter@wwu.edu</a>	<a href="mailto:Keith.Hyatt@wwu.edu">Keith.Hyatt@wwu.edu</a>	
Sample Careers		
Special Education Resource Room Teacher   Special Education Teacher   Consultant   Inclusive Classroom Teacher		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),
- cumulative grade point average of 2.75 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher,
- Meet the Washington Education Skills Test-Basic (WEST-B) requirement. This may be met by a) passing the West-B exam, b) SAT minimum scores, c) ACT minimum scores. See the WEST-B Requirement website for more information, [wce.wwu.edu/admissions/west-b-requirement](http://wce.wwu.edu/admissions/west-b-requirement). Passing scores must be on file by the application due date.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the Department to determine the most qualified applicants. For more information on the application process, contact Teacher Education Admissions in Miller Hall 150, call 360.650.3313, or visit the website at [wce.wwu.edu/admissions/teacher-education](http://wce.wwu.edu/admissions/teacher-education).

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA including the quarter in which the application was reviewed by the Department of Special Education. The State of Washington requires students to earn a "C" or better in all major endorsement and education courses.

See the Special Education and Education Leadership section of this catalog for program admission, completion, and teacher certification requirements.

## Certification Advisement

Each student will be assigned an adviser when admitted to the Department of Special Education. Students will be assisted and monitored by their adviser on a regular basis throughout their program.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsement.

## Major — Special Education: 60 credits

- SPED 360 - Introduction to Special Education
- SPED 460 - Interventions for Classroom Management
- SPED 464 - Disability Law and IEP
- SPED 465 - Assessment for Special Education and General Education Teachers
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 471 - Interventions for Learning and Achievement in a Diverse Classroom

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 480 - Practicum III - Individual/Group Intervention, Reading
- SPED 481 - Practicum VI - Individual/Group Intervention, Written Expression
- SPED 482 - Practicum VII - Individual/Group Intervention, Math
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education

### Professional Studies Core: 33 credits

- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- HLED 455 - Health Education Grades K-8
- I T 443 - Digital Decisions: Technology for Educators
- MATH 381 - Teaching K-8 Mathematics I
- SPED 420 - Effective Teaching
- SPED 440 - Practicum I - General Education
- ELED 424 - Language Arts in the Elementary Curriculum

### Internship — Special Education: 16 credits

- One course from:
  - SPED 498 - Internship - Special Education
  - SPED 499 - Internship - Exceptional Children/Secondary

Note(s): Post-baccalaureate teacher certification with Special Education endorsement has essentially the same requirements as the undergraduate teacher certification program in Special Education, including the Professional Studies Core and internship requirements.

### Content Endorsement: Variable credits (20-98 credits)

Students must earn a second endorsement in an area other than Special Education, Early Childhood Special Education, Bilingual Education, or English Language Learner. Information on all endorsement programs delivered through Western Washington University is available on the Woodring College of Education Endorsement Programs resource site.

## Master of Education

### Educational Administration, Instructional Technology, MEd (In Moratorium)

Department of Educational Leadership

This program is not currently accepting new students. For further information contact the Graduate School, Western Washington University, 516 High St., Bellingham, WA 98225-9037, 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

### Educational Administration, Thesis, MEd

#### Graduate Faculty

**Bruce, Tim**, PhD.  
**Hunter, Joseph**, EdD.  
**Larsen, Donald E.**, PhD.

**Graduate Program Advisor:** Dr. Donald Larsen, Miller Hall 418D, 360-650-4336, Donald.Larsen@wwu.edu  
**Program Manager:** Kimberly Caulfield, Miller Hall 417A, 360-650-3708, Kimberly.Caulfield@wwu.edu

## Program Goals

The Educational Administration program is designed to prepare elementary and secondary school teachers and ESAs to assume leadership roles as principals, vice principals, program and department leaders, or instructional technology specialists. Candidates receive a master's degree and/or are recommended for principal certification after completion of a year-long internship.

The Educational Administration program is offered at four sites — Bellingham, Bremerton, Seattle, and Tacoma.

## Application Information

### Prerequisite/Supporting Materials:

- Course background appropriate to level of specialization
- Three years of documented successful school-based instructional experience with students (e.g., teaching or ESA employment)
- Application for admission to Graduate School
- Candidate Information Form
- Photocopy of your valid Washington State teacher or ESA certificate. If submitting an ESA certificate, include a letter from your supervisor describing your assignment and service that supports successful school-based instructional experience with students
- A current résumé outlining your education and professional history
- Professional Reference forms (3): one each from two building-level administrators, and one from a district-level administrator
- Official transcript(s) showing all previous course work
- Satisfactory Graduate Record Exam (GRE) or Miller Analogies Test (MAT) scores
- Letter of application stating (a) why you want to become a school administrator, (b) how your understanding of diversity relates to improving learning for all students, and (c) defining your goals and objectives as an education leader
- Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) if you are also pursuing your principal's certificate
- An interview with a program advisor may be required

Please submit the online application for admission to the Graduate School: [www.wwu.edu/gradschool/](http://www.wwu.edu/gradschool/)

## Program Requirements (52 credits)

Core courses: [20 credits]

- EDAD 501 - Introduction to Educational Research and Evaluation
- EDAD 512 - Policy Studies in Educational Administration
- EDAD 541 - Theory in Educational Administration
- EDAD 543 - Supervision in the Public Schools
- EDAD 552 - Planning for Curriculum Administration

Thesis: [9 credits]

- EDAD 690 - Thesis
- Electives selected under advisement, e.g., law, finance, personnel, staff/community relations, instructional technology [23 credits]

For further information, see the Educational Administration Program website at [www.wce.wwu.edu/Depts/EDAD](http://www.wce.wwu.edu/Depts/EDAD)

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## Additional Information

### Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

### Second Master's Degree

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

### Educational Administration, With Comprehensive Assessment, Non-Thesis, MEd

#### Graduate Faculty

**Bruce, Tim**, PhD.

**Hunter, Joseph**, EdD.

**Larsen, Donald E.**, PhD.

**Graduate Program Advisor:** Dr. Donald Larsen, Miller Hall 418D, 360-650-4336, Donald.Larsen@wwu.edu

**Program Manager:** Kimberly Caulfield, Miller Hall 417A, 360-650-3708, Kimberly.Caulfield@wwu.edu

#### Program Goals

The Educational Administration program is designed to prepare elementary and secondary school teachers and ESAs to assume leadership roles as principals, vice principals, program and department leaders, or instructional technology specialists. Candidates receive a master's degree and/or are recommended for principal certification after completion of a year-long internship.

The Educational Administration program is offered at four sites — Bellingham, Bremerton, Seattle, Tacoma.

#### Application Information

##### Prerequisite/Supporting Materials:

- Course background appropriate to level of specialization
- Three years of documented successful school-based instructional experience with students (e.g., teaching or ESA employment)
- Application for admission to Graduate School
- Candidate Information Form
- Photocopy of your valid Washington State teacher or ESA certificate (if submitting an ESA certificate, include a letter from your supervisor describing your assignment and service that supports successful school-based instructional experience with students).
- A current résumé outlining your education and professional history
- Professional Reference forms (3): one each from two building-level administrators, and one from a district-level administrator
- Official transcript(s) showing all previous course work
- Satisfactory Graduate Record Exam (GRE) or Miller Analogies Test (MAT) scores

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- Letter of application stating (a) why you want to become a school administrator and (b) how your understanding of diversity relates to improving learning for all students, and (c) defining your goals and objectives as an education leader
- Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) if you are also pursuing your principal's certificate
- An interview with a program advisor may be required

Please submit the online application for admission to the Graduate School: [www.wvu.edu/gradschool/](http://www.wvu.edu/gradschool/)

### Program Requirements (52 credits)

- EDAD 501 - Introduction to Educational Research and Evaluation
- EDAD 512 - Policy Studies in Educational Administration
- EDAD 541 - Theory in Educational Administration
- EDAD 543 - Supervision in the Public Schools
- EDAD 552 - Planning for Curriculum Administration
- Electives selected under advisement, e.g., law, finance, personnel, staff/community relations, instructional technology [32 credits]
- Comprehensive assessment

For further information, see the Educational Administration Program website at [www.wce.wvu.edu/Depts/EDAD](http://www.wce.wvu.edu/Depts/EDAD).

### Additional Information

#### Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

#### Comprehensive Assessment

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

#### Second Master's Degree

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

### Educational Administration, With Field Study and Comprehensive Assessment, Non-Thesis, MEd

#### Graduate Faculty

**Bruce, Tim**, PhD.

**Hunter, Joseph**, EdD.

**Larsen, Donald E.**, PhD.

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

**Graduate Program Advisor:** Dr. Donald Larsen, Miller Hall 418D, 360-650-4336, Donald.Larsen@wwu.edu

**Program Manager:** Kimberly Caulfield, Miller Hall 417A, 360-650-3708, Kimberly.Caulfield@wwu.edu

## Program Goals

The Educational Administration program is designed to prepare elementary and secondary school teachers and ESAs to assume leadership roles as principals, vice principals, program and department leaders, or instructional technology specialists. Candidates receive a master's degree and/or are recommended for principal certification after completion of a year-long internship.

The Educational Administration program is offered at four sites — Bellingham, Bremerton, Seattle, Tacoma.

## Application Information

### Prerequisite/Supporting Materials:

- Course background appropriate to level of specialization
- Three years of documented successful school-based instructional experience with students (e.g., teaching or ESA employment)
- Application for admission to Graduate School
- Candidate Information Form
- Photocopy of your valid Washington State teacher or ESA certificate (if submitting an ESA certificate, include a letter from your supervisor describing your assignment and service that supports successful school-based instructional experience with students).
- A current résumé outlining your education and professional history
- Professional Reference forms (3): one each from two building-level administrators, and one from a district-level administrator
- Official transcript(s) showing all previous course work
- Satisfactory Graduate Record Exam (GRE) or Miller Analogies Test (MAT) scores
- Letter of application stating (a) why you want to become a school administrator, (b) how your understanding of diversity relates to improving learning for all students, and (c) defining your goals and objectives as an education leader
- Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) if you are also pursuing your principal's certificate
- An interview with a program advisor may be required

Please submit the online application for admission to the Graduate School: [www.wwu.edu/gradschool/](http://www.wwu.edu/gradschool/)

## Program Requirements (54 credits)

- Core courses: (20 credits)
  - EDAD 501 - Introduction to Educational Research and Evaluation
  - EDAD 512 - Policy Studies in Educational Administration
  - EDAD 541 - Theory in Educational Administration
  - EDAD 543 - Supervision in the Public Schools
  - EDAD 552 - Planning for Curriculum Administration
- Field study: [6 credits] EDAD 556 - Field Study in Educational Administration
- Electives selected under advisement, e.g., law, finance, personnel, staff/community relations, instructional technology [28 credits]
- Comprehensive Assessment

For further information, see the Educational Administration Program website at [www.wce.wwu.edu/Depts/EDAD](http://www.wce.wwu.edu/Depts/EDAD).

## Additional Information

## Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

### **Comprehensive Assessment**

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

### **Second Master's Degree**

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

### **Special Education, Non-Thesis, MEd (Endorsement Optional) (In Moratorium)**

Department of Special Education  
Miller Hall 201A, 360-650-3330

No new applications are being accepted at this time. As this program has been placed in moratorium, please contact the department or see the department website for updated information.

### **Graduate Faculty**

**Coulter, Gail**, PhD.  
**Hyatt, Keith**, EdD.  
**Kelley, Bridget**, PhD.  
**Lambert, M. Charles**, PhD.  
**Perzigian, Aaron**, PhD.  
**Robinson, LeAnne**, PhD.  
**Sasnett, Roger**, PhD, NCSP  
**Thorndike, Tracy**, PhD.

### **Goals**

The program prepares special educators to become master teachers and consultants in specialized instruction.

Graduate studies in special education are generally designed for students who have met Washington state teacher certification requirements, and are seeking a master's degree in combination with an endorsement to teach special education, and for certificated special education teachers. Prospective students who hold a bachelor's degree and are seeking a first Washington state certification should refer to the Special Education Post-Baccalaureate Program as preparation for graduate admission.

### **Application Information**

Candidates must meet the requirements of the Graduate School (see General Requirements in this section of the catalog) in addition to the following departmental requirements:

- Specific test requirements:
  - Miller Analogies Test or Graduate Record Exam, General Test.
- Supporting materials:
  - A résumé

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- A statement of purpose for seeking the MEd, and SPED endorsement, if applicable, not to exceed one page
- Completion of Washington state residency certificate requirements
- Three current letters of reference
- An on-campus interview if requested by the department

In limited cases, students who do not meet departmental admission requirements may be granted provisional admission by the Graduate School.

### Research Paper

The department requires students to submit a proposal for a research paper (691). This proposal must be approved by the student's committee prior to registering for SPED 691. In SPED 691 students will design and carry out independent research under the direction of a faculty committee. Two faculty are required for the committee directing the research paper (691).

### Comprehensive Assessment

Student achievement of the program competencies will be assessed by faculty during the final two quarters of the program through one of two methods:

- Research paper (SPED 691)
- Qualifying examination - the qualifying exam is required by the end of the third quarter of enrollment, after completing SPED 501 with a grade of B- or better. Passage of the qualifying exam is required prior to registering for SPED 691 credits.

### Courses (52 credits)

**NOTE:** curriculum undergoing revision

Options including a special education teaching endorsement (52 credits)

- Core requirements:
  - SPED 501 - Research in Special Education
  - SPED 503 - Instructional Design for Diverse Learners
  - SPED 567 - Advanced Issues in Special Education \*
- SPED course work:
  - SPED 466 - Assessment, Evaluation and IEP
  - SPED 474 - Students With Complex Needs
  - SPED 560 - Literacy Instruction for Students With Special Needs
  - SPED 562 - Learning Problems
  - SPED 563 - Curriculum and Methods in Special Education
  - SPED 564 - Social Skills
  - SPED 565 - Communication and Collaboration in Special Education
  - SPED 568 - Curriculum-Based Evaluation and Decision Making
- Research paper requirement:
  - SPED 691 - Research Seminar

A one quarter student teaching internship may be required to earn the P-12 special education endorsement.

Options not including a special education teaching endorsement (52 credits)

- Core requirements:
  - SPED 501 - Research in Special Education
  - SPED 503 - Instructional Design for Diverse Learners
  - SPED 567 - Advanced Issues in Special Education \*
- SPED course work:
  - A minimum of 10 hours in Special Education and others by advisement
- Research paper requirement:



SPED 691 - Research Seminar  
\*Repeatable - 6 credits required.

## **Special Education, Thesis, MEd (Endorsement Optional) (In Moratorium)**

Department of Special Education  
Miller Hall 201A, 360-650-3330

No new applications are being accepted at this time. As this program has been placed in moratorium, please contact the department or see the department website for updated information.

### **Graduate Faculty**

**Coulter, Gail**, PhD.  
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**Perzigian, Aaron**, PhD.  
**Robinson, LeAnne**, PhD.  
**Sasnett, Roger**, PhD, NCSP  
**Thorndike, Tracy**, PhD.

### **Goals**

The program prepares special educators to become master teachers and consultants in specialized instruction.

Graduate studies in special education are generally designed for students who have met Washington state teacher certification requirements, and are seeking a master's degree in combination with an endorsement to teach special education, and for certificated special education teachers. Prospective students who hold a bachelor's degree and are seeking a first Washington state certification should refer to the Special Education Post-Baccalaureate Program as preparation for graduate admission.

### **Application Information**

Candidates must meet the requirements of the Graduate School (see General Requirements in this section of the catalog) in addition to the following departmental requirements:

- Specific test requirements:
  - Miller Analogies Test or Graduate Record Exam, General Test.
- Supporting materials:
  - A résumé
  - A statement of purpose for seeking the MEd, and SPED endorsement, if applicable, not to exceed one page
  - Completion of Washington state residency certificate requirements
  - Three current letters of reference
  - An on-campus interview if requested by the department

In limited cases, students who do not meet departmental admission requirements may be granted provisional admission by the Graduate School.

### **Thesis**

The department requires students to submit a proposal for a thesis (690). This proposal must be approved by the student's committee prior to registering for SPED 690 or SPED 691. In SPED 690 students will design and carry out independent research under the direction of a faculty committee. The thesis option (690) requires a committee of three faculty.

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

## Comprehensive Assessment

Student achievement of the program competencies will be assessed by faculty during the final two quarters of the program through one of two methods:

- Thesis proposal, paper, and defense (SPED 690)
- Qualifying examination - the qualifying exam is required by the end of the third quarter of enrollment, after completing SPED 501 with a grade of B- or better. Passage of the qualifying exam is required prior to registering for SPED 690 credits.

## Courses (52 credits)

**NOTE:** curriculum undergoing revision

Options including a special education teaching endorsement (52 credits)

**NOTE:** curriculum undergoing revision

- Core Requirements:
  - SPED 501 - Research in Special Education
  - SPED 503 - Instructional Design for Diverse Learners
  - SPED 567 - Advanced Issues in Special Education \*
- SPED course work:
  - SPED 466 - Assessment, Evaluation and IEP
  - SPED 474 - Students With Complex Needs
  - SPED 560 - Literacy Instruction for Students With Special Needs
  - SPED 562 - Learning Problems
  - SPED 563 - Curriculum and Methods in Special Education
  - SPED 564 - Social Skills
  - SPED 565 - Communication and Collaboration in Special Education
  - SPED 568 - Curriculum-Based Evaluation and Decision Making
- Thesis requirement:
  - SPED 690 - Thesis

A one quarter student teaching internship may be required to earn the P-12 special education endorsement.

Options not including a special education teaching endorsement (52 credits)

- Core requirements:
    - SPED 501 - Research in Special Education
    - SPED 503 - Instructional Design for Diverse Learners
    - SPED 567 - Advanced Issues in Special Education \*
  - SPED course work:
    - A minimum of 10 hours in Special Education and others by advisement
  - Thesis requirement:
    - SPED 690 - Thesis
- \*Repeatable — 6 credits required.

## State Issued Certificate Preparation (Non-Degree)

### Initial Administrator Certificate (Superintendent)

**32 credits**

(26 credits of coursework plus a 6 credit, 6 quarter field experience)

See [wce.wvu.edu/edad/initial-superintendent-certification](http://wce.wvu.edu/edad/initial-superintendent-certification) for specific details.

## Introduction

Designed for aspiring superintendents and other school district leaders, such as assistant superintendents, executive directors and program managers. Candidates earn the Washington State initial superintendent's certificate.

### Contact Information

Wayne Robertson  
360-650-4144  
Wayne.Robertson@wwu.edu

### Sample Careers

Superintendent or District Office

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Application and Declaration Process):

All applicants must complete the Graduate School online application. This secure process includes credit card payment of a \$100 application fee and instructions for providing the following materials:

1. Unofficial transcripts from the institution that awarded your master's degree. If you are a current or former Western Washington University student, please generate an unofficial WWU transcript through Web4U to upload. Official transcripts will be required of candidates upon acceptance of an offer of admission.
2. Letter of intent stating (a) your goals and objectives as a district-level leader and (b) how your understanding of diversity relates to improving learning for all students.
3. Résumé outlining your education and professional history.
4. Letter of recommendation from your prospective mentoring superintendent supporting your application and indicating his/her willingness to serve as your mentor.
5. One copy of valid Washington State certificate (teacher, ESA, principal, or program administrator).

Prior to submitting an application, interested applicants to this program should contact the educational administration office, Miller Hall 417A.

## Program Requirements

### Eligibility

1. Master's degree or higher from a regionally accredited college or university.
2. Valid teacher, educational staff associate (ESA), program administrator, or principal certificate.
3. At least 45 credit hours (30 semester credit hours) of post-baccalaureate or graduate-level course work in education.

### Internship

1. Washington State Requirement: All candidates for the initial superintendent's certificate must complete a six-credit, six-quarter field experience.
2. Mentor Supervision: The intern shall be under the supervision of a mentoring superintendent with a minimum of three years of professional experience in the role they are supervising. Candidates are to discuss leadership goals and administrative career aspirations with the mentoring administrator before, or commensurate with, application to the program.
3. District & University Approval: In addition to getting University approval for a specified internship, candidates must initiate and satisfy any internship approval procedures required by their district.
4. University Credit: 540 hours of field experience (EDAD 692) translates to (6) credit hours across six quarters of (1) credit each.

Admission to the internship is separate from admission to the certificate program and is based on an individual evaluation of the candidate's preparation and experience.

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

## Additional Information

**Note:** Evidence of good moral character and personal fitness is required if the candidate does not hold a valid Washington educator certificate at the time of recommendation for the administrator certificate. Instructions and forms are available through the certification office:

[www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml](http://www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Residency Administrator Certificate (Principal)

### 48 credits

(36 credits of coursework plus a 12 credit, year-long field experience)

See [wce.wvu.edu/edad/residency-administrator-certificate-principal](http://wce.wvu.edu/edad/residency-administrator-certificate-principal) for specific details.

## Introduction

Designed for educators who hold a master's degree, or are currently enrolled in a master's program. Candidates earn the Washington State residency administrator certificate (principal).

### Contact Information

#### Don Larsen

Miller Hall 418D

360-650-4336

[Donald.Larsen@wvu.edu](mailto:Donald.Larsen@wvu.edu)

### Sample Careers

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

All applicants must complete the Graduate School online application. This secure process includes credit card payment of a \$100 application fee and instructions for providing the following materials:

1. Transcripts: from the institution that awarded your master's degree. If you previously attended WWU, please upload your academic history with your online application.
2. Letter of intent stating a) why you want to become a school administrator, b) how your understanding of diversity relates to improving learning for all students, and c) your goals and objectives as an education leader.
3. Résumé outlining your education and professional history.
4. One copy of valid Washington State certificate (teacher or educational staff associate). If submitting an ESA certificate, you must include a letter from your supervisor describing your assignment and three years of service that supports successful school-based instructional experience with students.
5. Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) Professional Reference Forms (3): One each from two building-level administrators, and one from a district-level administrator.
6. Candidate Information Form

Prior to submitting an application, interested applicants to this program should contact the educational administration office, Miller Hall 417A.

## Application Deadlines

To receive full consideration for admission to this program, applicants must submit all application materials by the following deadlines:

Fall Quarter: August 1  
Winter Quarter: October 1  
Spring Quarter: February 1  
Summer Quarter: May 1

## Program Requirements

### Eligibility

1. Master's degree or higher from a regionally accredited college or university.
2. Valid Washington State teacher or educational staff associate (ESA) certificate.
3. Three years demonstrated successful school-based experience.

### Internship

- Washington State Requirement: All candidates for the residency principal's certificate must spend 540 hours in a full school-year field experience, of which at least one half shall be when students and staff are present.
- Mentor Supervision: The intern shall be under the supervision of a mentoring principal or vice principal certificated at the appropriate level with a minimum one year experience in the role.
- District & University Approval: In addition to getting University approval on all internship arrangements, candidates must initiate and satisfy any internship approval procedures required by their district.
- University Credit: 540 hours of field experience (EDAD 592) translates to (12) credit hours in one academic year; i.e., three consecutive quarters of (4) credits each.

Admission to the internship is separate from admission to the certificate program and is based on an individual evaluation of the candidate's preparation and experience.

## Additional Information

**NOTE:** Evidence of good moral character and personal fitness is required if the candidate does not hold a valid Washington educator certificate at the time of recommendation for the administrator certificate. Instructions and forms are available through the certification office:

[www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml](http://www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Compass to Campus Courses

### C2C 201 - Compass to Campus: Youth Mentoring I

Introduction to service-learning mentoring through a campus wide mentoring initiative designed to encourage under-represented, low-income, first generation, and diverse 5th -12th grade students to graduate from high school and consider post-secondary education.

**Credits:** 3  
**Grade Mode:** Letter

### C2C 202 - Compass to Campus: Youth Mentoring II

Service learning through a campus wide mentoring initiative designed to encourage under-represented, low-income, first generation, and diverse 5th -12th grade students to graduate from high school and consider post-secondary education. Second in series. Repeatable up to 12 credits, including original course.

**Prerequisites & Notes:** C2C 201 or EDUC 201 or

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

EDUC 297A.

**Credits:** 3

**Grade Mode:** Letter

## **C2C 203 - Compass 2 Campus: Youth Mentoring Toward Social Justice**

Introduction to critical and cultural issues in education through service learning in local participating school districts. Required field work experiences are integrated into academic studies that connect multi-cultural civic engagement to structure their research, reflection and discussion. This integrated service learning approach promotes the development of new social perspectives and broadens students' world views.

**Credits:** 0 or 5

**Grade Mode:** Letter

**GUR Attributes:** BCGM

## **Educational Administration Courses**

### **EDAD 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **EDAD 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **EDAD 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not

eligible for tuition waiver.

**Credits:** 1-15

### **EDAD 501 - Introduction to Educational Research and Evaluation**

Introduction to fundamental concepts and procedures of educational research and evaluation. Interpreting research and evaluation literature and assessing appropriateness of methodology and application of research and evaluation models; utilization of databases for K-12 application in curriculum and instruction decision making.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **EDAD 512 - Policy Studies in Educational Administration**

Introduction to philosophical, ethical, moral and legal bases of educational administration, policy decision-making, and formulation. Study of selected policy development and implementation models in relation to above perspectives.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **EDAD 518 - Current Issues in Education**

Examination and discussion of several current and controversial issues in education. Repeatable with no maximum.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 1-5

**Grade Mode:** Letter

### **EDAD 538 - Case Studies in School Administration**

Studies to assist students in understanding school administration.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **EDAD 539 - Educational Leadership**

Roles and responsibilities of persons serving as members of the leadership team in public schools.

**Prerequisites & Notes:** Teaching experience or instructor permission.

**Credits:** 4  
**Grade Mode:** Letter

**EDAD 540 - Political and Economic Forces Shaping Education**

A study of major forces and groups at the federal, local and state level which impact education through political and economic means.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

**EDAD 541 - Theory in Educational Administration**

The study of major administrative theories and the impact of management, leadership and decision making for school administrators.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

**EDAD 542 - Public School Organization and Administration**

Problems and potentials of the principalship.

**Credits:** 4  
**Grade Mode:** Letter

**EDAD 543 - Supervision in the Public Schools**

Supervision as educational leadership in continuous evaluation and improvement of school practice.

**Credits:** 4  
**Grade Mode:** Letter

**EDAD 544 - Collective Bargaining in the Public Schools**

Technical structure and protocol of collective bargaining as well as issues and practices.

**Credits:** 4  
**Grade Mode:** Letter

**EDAD 546 - Administrative Research Topics**

Identification, study and evaluation of research topics appropriate for building level administrators. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Graduate status or permission of instructor.

**Credits:** 2-3  
**Grade Mode:** Letter

**EDAD 547 - Readings in School Administration**

Supervised study focusing on one or more selected topics.

**Prerequisites & Notes:** Graduate status or instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

**EDAD 548 - School Law**

Legal principles underlying statutes and court decisions related to the schools.

**Credits:** 4  
**Grade Mode:** Letter

**EDAD 549 - Seminar in School Personnel Administration**

Professional relationships among certified employees and other school personnel; development and implementation of policies.

**Prerequisites & Notes:** Permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

**EDAD 550 - Developing Staff and Community Relations**

Models for planning, implementing and evaluating professional development and school/community relations programs.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

**EDAD 551 - Systems Approach and Educational Management**

The systems approach as related to educational project planning and management.

**Credits:** 4  
**Grade Mode:** Letter

**EDAD 552 - Planning for Curriculum Administration**

Planning and decision-making process as related to development and administration of educational curriculum and innovations.

**Prerequisites & Notes:** Graduate status or

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **EDAD 553 - Administering Elementary and Secondary Schools**

Program articulation between elementary and secondary schools as well as unique aspects of these schools.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **EDAD 554 - Administration and the International School**

An examination of the structure, organization and principles by which Western European schools are financed, staffed and administered. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** instructor permission

**Credits:** 2-6

**Grade Mode:** Letter

### **EDAD 555 - Seminar in Effective School Practices**

Review and analysis of research findings related to effective school practices.

**Credits:** 4

**Grade Mode:** Letter

### **EDAD 556 - Field Study in Educational Administration**

Design, implementation and evaluation of a field project (6 credits maximum/minimum).

**Prerequisites & Notes:** Advancement to candidacy, permission of instructor and submission of outline indicating scope of project.

**Credits:** 2-3

**Grade Mode:** Letter

### **EDAD 592 - Field Experience in Administration for the Principal**

Applicants for the Washington State Administrative Certificate. Repeatable with no maximum. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

**Credits:** 2-6

**Grade Mode:** S/U

### **EDAD 594 - Practicum in Action Research**

Field-based studies by entire school building staffs

to resolve persistent and significant school problems. Course requirements include the development of an approved proposal for action research. May be repeated with different content. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** Teaching experience, permission of instructor.

**Credits:** 3

**Grade Mode:** S/U

### **EDAD 640 - Current Topics in Education**

Studies of current topics in educational administration, personnel administration, interprogram topics. Repeatable with no maximum.

**Prerequisites & Notes:** Master's degree; permission of instructor.

**Credits:** 1-5

**Grade Mode:** Letter

### **EDAD 641 - Improving Student Learning**

Systematic examination of curriculum and instruction policy development, implementation and maintenance of curriculum models, and development of guidelines for curriculum governance.

**Prerequisites & Notes:** Master's degree; EDAD 552 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

### **EDAD 642 - Effective School System Management**

Examination of important school system management theories and models. Development of strategies for management models implementation, evaluation and maintenance.

**Prerequisites & Notes:** Master's degree; permission of instructor.

**Credits:** 5

**Grade Mode:** Letter

### **EDAD 643 - Advanced Leadership Theory**

Examination of important leadership theories and governance styles as they relate to the role of the K-12 school superintendent. Key focus upon the ethics and fairness of reasoned decision making as a leader.

**Prerequisites & Notes:** Master's degree.

**Credits:** 5

**Grade Mode:** Letter



**EDAD 644 - Public Policy Formulation and Practice**

Exploration of research-based approaches to the development and implementation of public policy. Examines successful approaches to implementation and dissemination.

**Prerequisites & Notes:** Master's degree.  
**Credits:** 4  
**Grade Mode:** Letter

**EDAD 646 - Field Project in Educational Administration**

Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** Master's degree, permission of instructor and submission of a one-page outline indicating scope of proposed project.  
**Credits:** 2-5  
**Grade Mode:** Letter

**EDAD 647 - Seminar for School District Leaders**

Current problems and issues facing school administrators.

**Prerequisites & Notes:** Master's degree; applicant for Washington State Superintendent's Certificate; and/or instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

**EDAD 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy; approval of student's graduate committee.  
**Credits:** 1-9  
**Grade Mode:** S/U

**EDAD 691 - Research Seminar**

Research study under the direction of a faculty committee. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy; approval of student's graduate committee/program advisor.  
**Credits:** 1-6  
**Grade Mode:** S/U

**EDAD 692 - Field Experience in Administration for the Superintendent**

Applicants for the Washington State Administrative Certificate. Repeatable with no maximum. S/U grading.

**Prerequisites & Notes:** Master's degree and written permission of instructor.  
**Credits:** 1-6  
**Grade Mode:** S/U

**Special Education Courses**

**SPED 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**SPED 301 - Educational Psychology I: Development and Individual Differences**

Principles of human development and individual differences as they relate to both academic and non-academic functioning. Emphasis on implications for P-12 classrooms.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of department chair.  
**Credits:** 4  
**Grade Mode:** Letter

**SPED 302 - Educational Psychology II: Motivation, Learning and Assessment**

Principles of human motivation and learning and their implications for P-12 classrooms; basic statistical and applied concepts used in assessment of student performance.

**Prerequisites & Notes:** SPED 301 or EDUC 301.  
**Credits:** 4  
**Grade Mode:** Letter

**SPED 310 - Education, Culture, and Equity**

Issues of culture and social justice as they impact education, schools, and teaching. Includes a service learning component.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor or department chair.

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

**Credits:** 4

**Grade Mode:** Letter

## **SPED 360 - Introduction to Special Education**

An introduction to characteristics and categories of exceptionality, and the rules and regulations concerning provision of special education and related services. Includes federal and Washington state legislation pertinent to special education from preschool through high school. A minimum of 15 hours of practicum experience required during the quarter.

**Credits:** 4

**Grade Mode:** Letter

## **SPED 363 - Secondary Students With Special Needs**

Introduction to the characteristics and needs of secondary students with special needs; pertinent federal and state laws; curricular and behavior management adaptations in the regular classroom; assessment of learning problems; instructional techniques; behavior management strategies.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

## **SPED 364 - Teaching Each Student**

Introduction to impact of disability and English language acquisition on access to the general education curriculum. Research-based practices in instructional planning to provide access to all elementary students.

**Prerequisites & Notes:** Admission to the Woodring College of Education.

**Credits:** 4

**Grade Mode:** Letter

## **SPED 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **SPED 410 - Supportive Learning Environments**

Course provides an overview of classroom

management, positive behavior intervention support, and strategies for responding to challenging behavior. Includes instruction in lesson design, with an emphasis on effectively using direct instruction and applying universal design for learning principles.

**Prerequisites & Notes:** Admission to Woodring College of Education.

**Credits:** 4

**Grade Mode:** Letter

## **SPED 420 - Effective Teaching**

Research-based recommended practices in the design, delivery and evaluation of instruction for diverse learners.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor and concurrent enrollment in SPED 440 and SPED 460.

**Credits:** 4

**Grade Mode:** Letter

## **SPED 430 - Problem Solving for Diverse Needs**

Legal issues and inclusive practices for diverse populations. A collaborative, problem-solving approach to best practices, with an emphasis on school-based services for students with academic, behavioral, and linguistic needs.

**Prerequisites & Notes:** SPED 364; concurrent enrollment in ELED 471

**Credits:** 3

**Grade Mode:** Letter

## **SPED 440 - Practicum I - General Education**

Practicum experience in school setting designed to provide opportunities to demonstrate effective teaching and behavior management practices.

**Prerequisites & Notes:** Admission to Woodring College of Education; SPED 420 and SPED 460 concurrent.

**Credits:** 1-4

**Grade Mode:** Letter

## **SPED 441 - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching skills and strategies; individual projects. Repeatable to a maximum of 10 credits. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

**Credits:** 1-5  
**Grade Mode:** S/U

### **SPED 442 - Clinical Practicum**

Practicum experience in community settings. Designed to provide experience in the community and with agencies that serve persons with disabilities. (S/U, 1 – 5 credits, repeatable up to 10 credits).

**Prerequisites & Notes:** Admission to the Exceptionality and Disability, BAE and/or permission of the instructor

**Credits:** 1-5  
**Grade Mode:** S/U

### **SPED 443 - Early Development Variations**

Typical sequences and patterns of development and interrelationships across all areas from prenatal to age eight, and implications of developmental delays and disabilities.

**Prerequisites & Notes:** SPED 360 or SPED 364; or permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### **SPED 444 - Assessment and Intervention in Early Childhood Special Education**

Issues and resources related to developmental assessment, intervention, and monitoring of infants, toddlers, and preschoolers with delays and/or disabilities. Emphasizes family-centered services, cross-cultural competence, activity-based strategies and teaming.

**Prerequisites & Notes:** SPED 360 or SPED 364; SPED 420 or ELED 370; or permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### **SPED 460 - Interventions for Classroom Management**

Universal and targeted strategies for classroom management including behavioral, social, and cognitive interventions.

**Prerequisites & Notes:** SPED 360; co-requisites: SPED 420, SPED 440; or permission of instructor.

**Credits:** 4  
**Grade Mode:** Letter

### **SPED 464 - Disability Law and IEP**

This course will provide a foundational framework regarding disability law, specifically Section 504 of the Rehabilitation Act of 1974, the Americans with

Disabilities Act, and the Individuals with Disabilities Education Act. Eligibility, referral, and legal guidelines regarding development of the IEP will be investigated. Federal and Washington State regulations regarding provision of special education services will be covered.

**Prerequisites & Notes:** SPED 360 and SPED 420 or permission of instructor. Co-requisites: SPED 465 and SPED 467.

**Credits:** 4  
**Grade Mode:** Letter

### **SPED 465 - Assessment for Special Education and General Education Teachers**

This course will provide students with information regarding a variety of assessment processes and practices. Course content will include information regarding assessment skills, descriptive statistics and measurement, types of assessment instruments, data literacy, and issues pertaining to the assessment of students with disabilities and/or from diverse ethnic and linguistic backgrounds. Additionally, students will gain experience administering, scoring, interpreting the results of a variety of norm-referenced test instruments, and report writing.

**Prerequisites & Notes:** SPED 360 and SPED 420 or permission of instructor. Co-requisites: SPED 464 and SPED 467.

**Credits:** 4  
**Grade Mode:** Letter

### **SPED 466 - Assessment, Evaluation and IEP**

Referral and assessment for special education eligibility, norm-referenced and teacher-developed assessments, legal and procedural issues in IEP development, and strategies for assessing students from culturally and linguistically diverse backgrounds.

**Prerequisites & Notes:** SPED 360; SPED 420; SPED 440; SPED 460; EDUC 302 or SPED 302; or instructor permission.

**Credits:** 4  
**Grade Mode:** Letter

### **SPED 467 - Curriculum-Based Evaluation**

Curriculum-based procedures and formative evaluation. Determining present levels of educational performance, developing associated goals and objectives and monitoring progress. Guidelines for implementation of comprehensive Response to Intervention (RtI) procedures.

**Prerequisites & Notes:** SPED 360; SPED 420; SPED 440; SPED 460; SPED 302 or EDUC 302; or instructor permission.

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

**Credits:** 4

**Grade Mode:** Letter

### **SPED 468 - Effective Collaboration with Families, Professionals and Community**

Provides students with knowledge and skills for developing and sustaining effective collaborative partnerships with other professionals, paraeducators, family members, and community members. Focus is on effective communication, problem solving, and cultural competence skills necessary for sustaining collaborative relationships within a diverse society.

**Prerequisites & Notes:** SPED 360.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 470 - Violent and Aggressive Youth**

This course is designed to present information on the problem of violent and/or aggressive youth in school. The class will stress an educative approach by focusing on what educators can do to prevent, respond to and follow up on acts of violence. S/U grading.

**Credits:** 3

**Grade Mode:** S/U

### **SPED 471 - Interventions for Learning and Achievement in a Diverse Classroom**

The class focuses on the attention, motivation and self-monitoring skills of students in a diverse classroom. Primary content of the course is on teaching the task-related skills and strategies needed for students to learn efficiently and effectively. Includes a focus on strategy instruction, academic vocabulary and current best practice in designing and delivering interventions for learning. An emphasis is placed on understanding the interaction between one's mindset, beliefs and dispositions, especially in relation to culture, disability, and ethnicity, on potential student learning outcomes.

**Prerequisites & Notes:** SPED 360, SPED 420, SPED 460.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 472 - Behavior Assessment and Intervention**

Assessment and intervention for students with intensive behavioral needs including functional behavior assessment, positive behavior supports, crisis management, and applied behavior analysis.

**Prerequisites & Notes:** SPED 460, SPED 467; or

permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 473 - Promoting Resiliency in Vulnerable Students**

Exploration of characteristics, identification and special needs of students who are at risk for academic and/or social failure in school due to chemical dependence issues, bilingualism, poverty, dysfunctional family situations or other factors that may interfere with a student's ability to succeed. Analyzes strategies that combine the skills of special and regular education teachers.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **SPED 474 - Students With Complex Needs**

History, philosophy, characteristics and services for students with low incidence disabilities. Empirically-based design of instruction and monitoring of functional curricula for people who need some level of continual support.

**Prerequisites & Notes:** SPED 420, SPED 360 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 475 - Seminar in Autism**

Seminar in Autism will focus on educational and therapeutic interventions for clients with autism. There is a lab component to this course which requires hands-on intervention with clients with autism

**Prerequisites & Notes:** SPED 467 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

### **SPED 476 - Practicum II - Service Delivery Models**

This practicum course will provide students with an opportunity to observe and familiarize themselves with numerous school and community based placement options for individuals with disabilities. Practicum will include preschool through postsecondary transition experiences with students exhibiting a variety of disabilities. S/U grading.

**Prerequisites & Notes:** SPED 467 or instructor permission; Co-requisite: SPED 474.

**Credits:** 1

**Grade Mode:** S/U

**SPED 477 - Practicum IV - Behavior Assessment and Intervention**

This practicum course will provide students with an opportunity to practice behavioral observation techniques with diverse populations in school-based settings. Practicum will include a variety of observation sites, including elementary, middle school, secondary, and/or post-secondary placements. S/U grading.

**Prerequisites & Notes:** SPED 474 or instructor permission; Co-requisite: SPED 472.

**Credits:** 1

**Grade Mode:** S/U

**SPED 478 - Complex Needs II**

This course focuses on daily living skills for students with disabilities and builds upon concepts presented in SPED 474 Complex Needs. Topics include: vocational education, community based-education, developing leisure and recreation skills, communication skills, motor and medical needs, and assistive technology appropriate for persons with complex needs. The course emphasizes the transition of students with significant needs into post-secondary environments.

**Prerequisites & Notes:** SPED 474.

**Credits:** 4

**Grade Mode:** Letter

**SPED 480 - Practicum III - Individual/Group Intervention, Reading**

Practicum experience in school/community settings. Designed to provide opportunities for students to develop, implement, and monitor literacy intervention programs for individuals or small groups of students.

**Prerequisites & Notes:** SPED 467 or instructor permission; co-requisite: SPED 483

**Credits:** 1-3

**Grade Mode:** Letter

**SPED 481 - Practicum VI - Individual/Group Intervention, Written Expression**

Practicum experience in school/community settings. Designed to provide opportunities for students to develop, implement, and monitor instructional intervention programs in literacy for small and large groups.

**Prerequisites & Notes:** Special education majors or permission of instructor.

**Credits:** 1-3

**Grade Mode:** Letter

**SPED 482 - Practicum VII - Individual/Group Intervention, Math**

Practicum experience in school/community settings. Designed to provide opportunities for students to develop, implement, and monitor instructional intervention programs in Math for small and large groups.

**Prerequisites & Notes:** Special education majors or permission of instructor.

**Credits:** 1-3

**Grade Mode:** Letter

**SPED 483 - Reading Instruction for Students With Special Needs**

Basic reading instruction for K-12 students in inclusive classrooms; emergent literacy, instructional methods, curriculum and materials; accommodating for individual differences.

**Prerequisites & Notes:** SPED 467 and LING 201 or permission of instructor; co-requisite: SPED 480.

**Credits:** 4

**Grade Mode:** Letter

**SPED 484 - Designing Written Expression Interventions**

Written expression decision-making and instruction strategies within the context of Response to Intervention. Aligning instructional strategies to student need through the application of problem-solving, progress monitoring and decision making. Focus on topics such as emergent writing skills, mechanics, sentence fluency, and the writing process.

**Prerequisites & Notes:** SPED 467, SPED 483; co-requisites: SPED 481, SPED 482, SPED 485, SPED 486

**Credits:** 4

**Grade Mode:** Letter

**SPED 485 - Designing Math Interventions**

Math decision-making and instruction strategies within the context of Response to Intervention. Aligning instructional strategies to student need through the application of problem-solving, progress monitoring and decision making. Focus on emergent numeracy, computation, problem solving, algebra and functional applications of measurement, time and money.

**Prerequisites & Notes:** MATH 381 and SPED 467; or instructor permission; co-requisites: SPED 481, SPED 482, SPED 484, SPED 486

**Credits:** 4

**Grade Mode:** Letter

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

### **SPED 486 - Case Study Applications in Special Education**

Uses the case study method to present situations frequently encountered in special education settings, in review of special education course content and application in preparation for student teaching internships.

**Prerequisites & Notes:** Co-requisite: SPED 484 or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **SPED 490 - Teaching Laboratory**

Diagnosis of students, lesson preparation, videotaped peer teaching, analysis of teaching, lesson redesign.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 494 - Internship - Elementary**

Supervised general education teaching experience to develop and demonstrate teaching competence at the primary and/or intermediate grade levels. S/U grading.

**Prerequisites & Notes:** Admission to a Woodring Teacher Education Program and permission of the department.

**Credits:** 15

**Grade Mode:** S/U

### **SPED 495 - Clinical Internship**

Clinical Internship provides students extended experience in community settings that meet the needs of persons with disabilities. Students undertake a variety of duties that prepare them to interact in professional situations across community, organizations, and agencies. Repeatable up to 3 times including original course. S/U grading.

**Prerequisites & Notes:** Admission into the Exceptionality and Disability, BAE and permission of the instructor.

**Credits:** 1-16

**Grade Mode:** S/U

### **SPED 496 - Internship - Exceptional Children/Early Childhood**

Supervised teaching experience to develop and demonstrate teaching competence for exceptional children. Repeatable to 24 cr. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching.

**Credits:** 2-18

**Grade Mode:** S/U

### **SPED 498 - Internship - Special Education**

Supervised teaching experience to develop and demonstrate teaching competence for children and youth with disabilities. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching.

**Credits:** 15

**Grade Mode:** S/U

### **SPED 499 - Internship - Exceptional Children/Secondary**

Supervised teaching experience to develop and demonstrate teaching competence for exceptional children. Repeatable to 24 cr. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching.

**Credits:** 2-18

**Grade Mode:** S/U

### **SPED 500 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **SPED 501 - Research in Special Education**

Introduction to the concepts and procedures of contemporary research within special education. Reviewing, analyzing and interpreting research literature applicable to special education. Planning research with exceptional populations including defining research problems, developing relevant hypotheses, and selecting appropriate research designs (including quantitative and qualitative approaches).

**Prerequisites & Notes:** Admission to Graduate school

**Credits:** 4

**Grade Mode:** Letter

### **SPED 503 - Instructional Design for Diverse Learners**

Systematic analysis, design, development and evaluation of instructional systems and practices for diverse learners. Application of instructional

design principles and supporting technologies in P-12 and transitional settings, within decision making frameworks and Response to Intervention.

**Prerequisites & Notes:** IT 443 or equivalent; Graduate status; SPED 501 or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **SPED 510 - Secondary Students With Special Needs**

Rules, regulations, and related funding categories within special education. Includes specialized instruction and evaluation procedures for use in general education settings.

**Prerequisites & Notes:** Admission to Secondary MIT or instructor permission

**Credits:** 4

**Grade Mode:** Letter

### **SPED 518 - Current Issues in Education: Special Education**

Examination and discussion of current issues in special education. Repeatable to a maximum of 10 cr.

**Credits:** 1-5

**Grade Mode:** Letter

### **SPED 542 - Issues in Inclusive Early Education**

Current issues and best practices in early childhood program design and implementation. Emphasis on family-centered, play-based interagency models that serve children of all abilities. Applied research focus.

**Prerequisites & Notes:** Admission to Graduate School or permission of instructor.

**Credits:** 3

**Grade Mode:** Letter

### **SPED 543 - Assessment of Young Children (Birth to 8 Years)**

Issues and resources for accurate and appropriate assessment of young children. Current best practices in instructionally relevant assessment, monitoring child progress and evaluating overall program success. Alternative strategies for assessing the very young child, family needs and special populations. Emphasis on critical evaluation of instruments, psychometric adequacy and technical aspects of test development.

**Prerequisites & Notes:** Admission to Graduate School or permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### **SPED 544 - Inclusive Curriculum in Early Childhood**

Curriculum development and adaptation for infants, toddlers and preschool children. Includes available resources, best practices with the developmentally young and play-based curricula. Focus on model program curricular approaches, the use of daily routines and parent-child interaction as a context and content for curriculum, and peer-mediated learning strategies. Emphasis on efficacy research and the impact of various curricular models.

**Prerequisites & Notes:** Admission to Graduate School or permission of instructor

**Credits:** 3

**Grade Mode:** Letter

### **SPED 560 - Literacy Instruction for Students With Special Needs**

Advanced study of literacy instruction for K-12 students in inclusive classrooms; emphasis on supportive learning environments including computers, adaptive equipment, peer-mediated learning strategies, and accommodation for individual differences; includes theories of literacy acquisition, research-based instructional methods, curriculum and material, related disabilities, and assessment and evaluation.

**Prerequisites & Notes:** SPED 480, SPED 483; or equivalent; or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 562 - Learning Problems**

Information processing and learning theory as it applies to students with mild disabilities. Discusses assessment and evaluation of cognitive strategies and their application to academic and social skill development.

**Prerequisites & Notes:** Admission to graduate program or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 563 - Curriculum and Methods in Special Education**

Analysis and application of curricular design, research-based instructional models, and assistive technology with discussions of universal design and legal mandates.

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

**Credits:** 4

**Grade Mode:** Letter

### **SPED 564 - Social Skills**

Applied behavior analysis for children with learning and behavioral problems. Emphasis on functional assessment, single-subject research design and the teaching of social skills.

**Prerequisites & Notes:** Admission to graduate program or permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### **SPED 565 - Communication and Collaboration in Special Education**

The collaborating teacher's role in providing special education services to children in integrated settings. Emphasizes instructional and communication skills needed to achieve that role.

**Prerequisites & Notes:** SPED 468; or equivalent; or permission of instructor

**Credits:** 4

**Grade Mode:** Letter

### **SPED 567 - Advanced Issues in Special Education**

Intensive study of legal, intervention and ethical issues in special education. Repeatable to a maximum of 6 credits.

**Credits:** 2

**Grade Mode:** Letter

### **SPED 568 - Curriculum-Based Evaluation and Decision Making**

Advanced evaluation and decision-making processes. Focus on curriculum-based procedures, formative evaluation, and educational decision making. Emphasis on generating present levels of educational performance and associated goals and objectives.

**Credits:** 4

**Grade Mode:** Letter

### **SPED 570 - Violent and Aggressive Youth**

This course is designed to present information on the problem of violent and/or aggressive youth in school. The class will stress an educative approach by focusing on what educators can do to prevent, respond to and follow up on acts of violence. S/U grading.

**Credits:** 3

**Grade Mode:** S/U

### **SPED 590 - Seminar in Demonstration Teaching and Supervision**

Advanced studies in the principles of supervision; utilization of instructional resources and the evaluation and improvement of teaching.

**Prerequisites & Notes:** ELED 442.

**Credits:** 3

**Grade Mode:** Letter

### **SPED 598 - Residency in Special Education**

Full-time residency placement in a special education environment in the public schools. Repeatable to a maximum of 16 cr.

**Credits:** 4-16

**Grade Mode:** Letter

### **SPED 599 - Internship: Exceptional Children**

Full-time teaching placement in a special education environment for ME. certification students. Not applicable to graduate plans of study. Repeatable to 24 credits. S/U grading.

**Credits:** 8-16

**Grade Mode:** S/U

### **SPED 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 cr. S/U grading.

**Prerequisites & Notes:** Approval of student's graduate committee and successful completion of the qualifying exam.

**Credits:** 1-9

**Grade Mode:** S/U

### **SPED 691 - Research Seminar**

Graduate research under the direction of a program advisor/committee. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Approval of student's graduate committee and successful completion of the qualifying exam.

**Credits:** 1-6

**Grade Mode:** S/U



# Teacher Education Outreach Programs

## Teacher Education Outreach Programs

Teacher Education Outreach Programs offers professional education programs that lead to recommendation to the Office of the Superintendent of Public Instruction for residency teacher certification in the state of Washington. These programs integrate studies in Elementary Education, Special Education, and across eight additional disciplines, including math, science, health, and physical education.

The course work for undergraduate and post-baccalaureate programs is offered in a prescribed sequence with evening classes, and daytime practicum work. Upon completion of the major (undergraduates), the professional studies core, the endorsement course work and internship, students will receive a teaching certificate with an endorsement in elementary education. Students may choose to complete a second internship to earn an additional endorsement in special education.

The programs, designed to prepare thoughtful, knowledgeable, and effective educators for a diverse society, offer courses and certification sequences at Western Washington University program sites in Bremerton, Everett, and Seattle. Prospective students are encouraged to contact the site office closest to them for information on program offerings that meet their individual needs.

### Information

Individuals interested in Teacher Education Outreach Programs can obtain general information from the website, [wce.wvu.edu/teop/teacher-education-outreach-programs](http://wce.wvu.edu/teop/teacher-education-outreach-programs).

Inquiries should be directed to the site you wish to attend. Bremerton, 360-475-7272; Everett, 425-405-1646; Seattle, 206-934-6052.

## Teacher Education Outreach Programs

- BA in Education (Special Education major) leading to a teacher certificate endorsed in Elementary Education
- Post-Baccalaureate teacher certification with Elementary Education endorsement
- Special Education (P-12) additional endorsement (certificated teachers only)
- Elementary Education additional endorsement (certificated teachers only)
- The No Child Left Behind (NCLB) "highly qualified teacher" requirement may impact

eligibility for certain middle school teaching assignments in a core academic subject(s). Students are responsible for consulting with an advisor for further information on NCLB.

## Certification

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with Washington State K-12 Learning Standards, and require candidates to demonstrate that they have made a positive impact on student learning. First-level residency certification programs are designed around the standards of effective teaching, professional development, and teaching as a profession. Second-level professional certification requirements are designed around the standards of effective teaching, professional development, and professional contributions. State requirements for teacher certification at the time of completion of a student's program will supersede those outlined in this catalog. These changes may affect the time that it takes a student to complete the teacher education program.

## Residency Teacher Certification

The first-level residency certificate is awarded to new teachers upon the completion of these general requirements:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness

Candidates for residency certification must pass a tested content knowledge to earn an endorsement. WWU requires submission of a passing score for each endorsement to be earned, before commencement of the student teaching internship. For current information on test requirements, registration, fees, and test dates and locations, refer to the Content Test Resource website, [wce.wvu.edu/cert/content-test-resource-site](http://wce.wvu.edu/cert/content-test-resource-site). Candidates for residency certification must also complete the state of Washington edTeacher Performance Assessment (edTPA) during the student teaching internship.

Application for the residency certificate is made to the Woodring Certification Office, Teacher Education Student Services, Miller Hall 150, phone 360-650-4930, no later than three months prior to the start of the internship. Candidates will be

## TEACHER EDUCATION OUTREACH PROGRAMS

contacted by the program site or certification supervisor with required application materials.

The first-issue residency certificate has no defined expiration date. It is valid until the teacher completes 1.5 FTE years of successful teaching experience accumulated over a minimum of two years in a state-approved public, private or state operated education program. A three year residency certificate is then issued by the state. The timeline for earning a second level professional certificate begins with the reissued residency certificate.

### Professional Teacher Certification

The second-level professional certificate is awarded to experienced teachers who hold a valid residency certificate and who pass the Washington ProTeach Portfolio assessment or earn national board certification through the National Board of Professional Teaching Standards. For further information on professional certification requirements, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### Endorsements

An endorsement identifies the subject matter in which a teacher is prepared and authorized by the state to teach. One qualifying endorsement is required for residency certification. Courses required for a teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better. For information on additional endorsement programs offered throughout the University, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### Approved Academic Majors

Post-baccalaureate students seeking teacher certification and an endorsement in elementary education through Teacher Education Outreach programs must have completed an approved academic major in anthropology, art, communication, English, environmental studies, foreign language, general science, geography, geology (earth science), history, humanities, elementary education studies, mathematics, music, psychology (human development), social studies, sociology, special education or student/faculty designed major. For further information on the applicability of a particular major, contact any Teacher Education Outreach Programs site.

### Program Length

The sequence of study for teacher certification is designed for students who hold a transferable

Associate of Arts degree (DTA) from a Washington State community college, or have satisfied Western's General University Requirements, or have a bachelor's degree with an approved major and are seeking certification. Students begin their program in the fall at all sites and move through their programs as a cohort.

- Students earning a BA in Education attend class for 11 quarters, including the internship, or 12 quarters if earning the Special Education endorsement.
- Post-Baccalaureate students attend classes for 7 quarters, including the internship.

### Admission Requirements

All applicants to undergraduate and post-baccalaureate teacher certification programs must be formally admitted to both Western Washington University and the applicable program. Admission occurs once a year in the fall.

The requirements listed below are minimum application criteria. Enrollment restrictions apply to all teacher education programs. Meeting the following requirements makes the applicant eligible for admission consideration but does not guarantee admission. Students who meet all criteria are further evaluated to determine the most qualified applicants. Students will be evaluated on all information provided with the application, including required copies of transcripts from all prior colleges.

### Application criteria:

- Transferable associates degree from a Washington State community college or satisfaction of the Western Washington University general education requirements (undergraduate program only).
- Bachelor's degree in an approved academic major (post-baccalaureate program only).
- Cumulative grade point average of 2.75 or higher overall college-level course work or over the last 45 credits.
- Meet the basic skills requirement. This may be met by: a) Taking the West-B exam, b) SAT minimum scores, c) ACT minimum scores. See the Woodring admissions website: [wce.wvu.edu/admissions/west-b-requirement](http://wce.wvu.edu/admissions/west-b-requirement) and the West-B website: [www.west.nesinc.com](http://www.west.nesinc.com).
- Completion of an English composition course with a grade of B- (2.7) or higher.
- Three letters of recommendation and a reflective essay.

## Advisement and Orientation

Upon acceptance to the Woodring College of Education, each student is assigned an advisor. At all Teacher Education Outreach Program sites, the advisor is the academic program director. Additionally, all accepted students must attend a required orientation. Students may be dropped from their program for failing to attend the orientation.

## Program Continuation

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

## Requirements upon Program Admission

- Institutional Application for a Teacher's Certificate and Character and Fitness Supplement, and background checks as described below under Character and Fitness
- Woodring College of Education Professionalism Orientation
- Woodring College of Education Prevention of Sexual Harassment Training
- Woodring College of Education Blood-Borne Pathogens Training

## Character and Fitness

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Students provide evidence of character and fitness through two separate but related processes:

- An Institutional Application for a Teacher's Certificate and Character and Fitness Supplement, provided to students upon acceptance into the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with "yes" responses must contact the certification officer at 360-650-4630 and gain character and fitness clearance before registering for classes
- Washington State Patrol and FBI background checks through a fingerprinting process. Procedures and fee information are provided to students upon acceptance into the program.

No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and

then cleared by the Washington State Office of Superintendent of Public Instruction. Clearances are valid for specified time frames. Students must maintain character and fitness clearance until they have been recommended for a residency teacher certificate following completion of the teacher education program.

In addition to the Washington state character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct Requirements and Agreement, which is submitted with program application materials.

## General Retention Requirements

- Students must maintain at least a 2.75 GPA, beginning with the quarter they are notified of admission. This requirement applies even to quarters where no education courses are being taken. Students who fail to meet this standard will receive a letter advising them that they have been dropped from the program.
- Students must earn a grade of C (2.0) or better in both the professional education sequence and in all courses required for the endorsement
- Students must understand and demonstrate a high level of competence in the English language. Those who have difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return.

## Program Completion

To qualify for program completion and recommendation for state of Washington residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- Minimum scores set by the state of Washington on a state required content

## TEACHER EDUCATION OUTREACH PROGRAMS

knowledge test for the qualifying endorsement area(s)

- Completion of the Washington Pre Service Teacher Performance Assessment
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES) and passing scores on the Teacher Performance Assessment

### Other Departmental Information

#### Internship

An important experience for teacher certification candidates is the student teaching internship. Students spend two quarters taking final classes in the program along with time in their assigned classroom preparing for quarter three when they are full-time teaching under the direct supervision of a certificated teacher in a school setting. This internship involves intensive practice in integrating methods, content area knowledge, and classroom organizational strategies.

Students will be able to work part time during two quarters of the three quarter internship. Candidates are advised not to work during the full-time internship so they may gain maximum benefit from the experience and perform at their highest ability.

The Office of Field Experiences (OFE) is the service agency of the Woodring College of Education that seeks placement for prospective interns. Students apply for their internship around January prior to a fall internship start quarter, or April prior to a winter or spring internship start quarter. Specific dates for informational meetings and application deadlines are published on the OFE Website, [wce.wwu.edu/ofe/office-field-experiences](http://wce.wwu.edu/ofe/office-field-experiences).

Before commencement of the internship, passing scores on the state-required content knowledge test for each endorsement must be submitted, all educational endorsement course work and practica must be completed, and fingerprint/character and fitness clearance must be valid. Students who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements. Placement in a school is contingent upon:

- Fulfillment of all program requirements (satisfactory academic work, education and endorsement program course work and training, practica, and faculty recommendations)

- Submission of passing scores on the state-required content knowledge test for each endorsement
- Availability of placements and supervision in specific subjects and grade levels
- Acceptance by P-12 school personnel
- Fingerprint/character and fitness clearance through the point of certification

Students are required to interview with the public school teacher to whom they will be assigned, for final approval of placement. OFE will make every effort to arrange up to three initial interviews but does not guarantee an interview.

Any subsequent placement after a voluntary or non-voluntary withdrawal from an internship will be granted only by faculty recommendation following a case conference.

For further information, contact the Woodring College Office of Field Experiences, Student Services, phone 360-650-3310, Miller Hall 150.

# University Interdisciplinary Programs

## Minor

### Sustainability Studies Minor

University Interdisciplinary Programs

**24-29 credits**

#### Introduction

Created by the Sustainability Academy and approved by the Sustainability Curriculum Committee, this Sustainability Studies Minor draws across all the colleges at WWU, and is administered by an academic program director and advisers within the student's major. The Minor is appropriate for students who wish to complement their undergraduate curricula and to further gain knowledge about the social, economic, and environmental aspects of sustainability in both their academic and professional growth. The minor is highly cross-disciplinary in an effort to provide a diverse foundation for becoming engaged citizens.

#### Contact Information

##### Academic Program Director

Dr. Grace Wang  
Arnzten Hall 212  
360-650-3278  
Grace.Wang@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

To apply for the minor, applicants must first have completed ENVS 116 (Sustainability Literacy I), declared a major, and present a plan of study to the Academic Program Director (Dr. Grace Wang, Environmental Studies). The proposed plan of study must be approved by both the student's major faculty adviser and the Program Director. Students may apply toward the minor no more than approximately eight credits (or two courses) from their major requirements. A grade of C or higher is required for all courses in the minor, and a GPA of 2.7 is required.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Program Requirements

##### Literacy Sequence

- ENG 371 - Introduction to Rhetorical Analysis
- ENVS 116 - Sustainability Literacy I
- ENVS 471 - Campus Sustainability Planning Studio

##### Sustainability Design Literacy

- Choose one from the following:
  - DSGN 111 - Design View
  - DSGN 211 - Foundations of Visual Communication
  - ID 130 - History of Industrial Design

# UNIVERSITY INTERDISCIPLINARY PROGRAMS

## Sustainability Competencies

Select one course from each of the 3 competencies below:

### A. People: Society & Social Justice

A/HI 316 - Land and Landscape  
ANTH 490 - Senior Seminar in Anthropology  
ENVS 303 - Human Ecology and Sustainability  
ENVS 304 - Environment and Resource Policy  
ENVS 343 - Urbanization: Processes and Patterns  
ENVS 361 - Introduction to Planning  
ENVS 370 - History of Planning  
ENVS 373 - Transportation Systems and Planning  
FAIR 335N - Visioning Sustainable Futures  
FAIR 393B - Rights, Liberties and Justice in America  
HIST 475 - Topics in American Indian History  
PLSC 420 - Environmental Politics  
SOC 341 - Sociology of Social Movements  
SOC 348 - Global Health  
(additional courses under advisement)

### B. Planet: Environment and Nature

BIOL 325 - Ecology  
BIOL 326 - Ecology Laboratory  
ENVS 326 - Climatology  
ENVS 327 - The Soil Environment  
ESCI 302 - Environmental Pollution  
ESCI 310 - Environmental Systems  
ESCI 325 - Fundamentals of Ecology  
FAIR 330D - Natural History and Environmental Issues of NW Washington  
FAIR 330E - Ethnobotany  
FAIR 336N - Topics in Science  
HIST 354 - Energy in American History  
HIST 380 - Food & Environment in America  
HIST 450 - Climate and Culture in America  
(additional courses under advisement)

### C. Prosperity: Economic Values

ECON 343 - Population, Environment, and World Agriculture  
ECON 380 - Urban Economics  
ECON 383 - Environmental Economics  
ECON 384 - Energy Economics  
ECON 482 - Advanced Topics in Environmental Economics  
ECON 483 - Resource Economics  
ECON 493 - Senior Seminar: Economics, the Environment and Natural Resources  
MGMT 359 - Greening Business Policy and Practice  
MGMT 466 - Greening Business Applications  
(additional courses under advisement)

# American Cultural Studies

## Introduction

American cultural studies allows students to concentrate on the Americanization process, American character, American cultural institutions and/or American cultural values, particularly as these shape our concepts and choices of vocation.

The program in American Cultural Studies is interdisciplinary and serves those students and faculty who are interested in the study of such questions but find that important aspects of cultural institutions, cultural artifacts and cultural values are not fully revealed by the course of study within a single department or college. The program allows students the opportunity to study issues especially arising from the cultural diversity in American society. Whenever possible, the program takes advantage of the rich curricular offerings of the various departments and colleges of the University.

Students who want a liberal arts education of breadth and depth will find that, because of its flexibility, the program adapts well to their needs. It offers suitable undergraduate background for advanced study in law, domestic social services, public service, government service or education, and for graduate work in American studies, ethnic studies and the social sciences. It also offers unique ways to combine the study of the humanities and social sciences.

For further information and advisement about the program contact the director of the program, Dr. Lawrence J. Estrada, Fairhaven College 330.

## Faculty

**LARRY J. ESTRADA**, Fairhaven College. Director, American Cultural Studies program. Race and ethnicity in America; Chicana-Hispano studies; urban multicultural education; U.S.-Mexican relations/Caribbean Studies.

**JEANNE ARMSTRONG**, Wilson Library. Research strategies, gender studies, postcolonial theory and comparative cultural and literary studies.

**JOANNE DEMARK**, Student Life. Leadership; social justice; queer studies.

**RAINE DOZIER** (2008) Assistant Professor. BA, State University of New York; MA, PhD, University of Washington.

**JOHN FEODOROV**, Fairhaven College. New genre art, Native American Art, Art and Society

**MARIA TIMMONS FLORES** (2008) Assistant Professor. MED, Western Washington University; PhD, University of Colorado Boulder.

**KRISTEN FRENCH**, Woodring College of Education. Educational pluralism.

**CHRIS FRIDAY**, History. Asian American and Native American studies; immigration, labor, Pacific Northwest and U.S. West studies.

**CAROL GUESS**, English. Fiction, creative nonfiction, poetry writing, queer studies.

**KAREN J. HOELSCHER** (1992) Professor. BS, Bemidji State University; MS, Mankato State University; EdD, Harvard University.

**STEVE HOFFMAN**, American Cultural Studies. American Judaism and Jewish religious practices.

**VERNON JOHNSON**, Political Science. Culture and politics of African societies; African American studies; the civil rights movement in America.

**ROSANNE KANHAI-BRUNTON**, English. Feminist literary theory; postcolonial literatures; African American literature; imaginative literature by women of color.

**KEVIN LEONARD**, History. History of Latino and African Americans in the United States.

**JAMES LOUCKY**, Anthropology. Immigration policy, Native American cultures, Latin and Latin American cultures, United States-Mexico border policy.

**BILL LYNE**, English. African American literature, cultural studies, cultural theory.

**MARY JANELL METZGER**, English. Critical Theory; women's literature; Shakespeare and his contemporaries and English studies methodologies.

**KATE MILLER**, Women Studies. Women studies, comparative racial and ethnic studies, multiracial identity, GLBT studies.

**DAVE OREIRO**, Northwest Indian College. American Indian experience; contemporary American Indian issues; American Indian higher education

**TARA PERRY**, Communication. Communication cultural/critical studies; students with disabilities in higher education; service learning; issues of diversity in teaching and learning.

**JOHN PURDY**, English. Native American literature; ethnic perspectives on literary theory.

**MARSHA RIDDLE-BULY**, Woodring College of Education. Literacy and historically marginalized students; English as a Second Language; bilingual education.

**LYSA RIVERA**, English. Chicano and Chicana Literatures and African American Literatures.

**DAN FIRST SCOUT ROWE**, Fairhaven College. American Indian studies, veterans studies.

**RAE LYNN SCHWARTZ-DUPRE**, Communication. Communication cultural/ critical studies; rhetorical theory and criticism; visual rhetoric; feminist postcolonial theory and criticism.

**TANIS S'EILTIN**, Fairhaven. Art and creativity; American Indian art forms; American Indian issues.

**TAMARA SPIRA** (2014) Assistant Professor. Queer Studies.

**MART STEWART**, History. African American history; cultural history of science and the environment.

**MIDORI TAKAGI**, Fairhaven. United States

# AMERICAN CULTURAL STUDIES

History; African American History; comparative racial and ethnic studies.

**NING YU**, English. Asian American literature;

Asian mythology; 19th century American literature and science.

## Bachelor of Arts

### American Cultural Studies, BA

American Cultural Studies Program, University Interdisciplinary Programs

#### 70 Credits

#### Introduction

American Cultural Studies allows students and faculty to address issues such as race/ethnicity, educational equity, social and cultural theory, socio-economic class, as well as gender and sexual orientation while analyzing the formation of identities in societies. The program in American Cultural Studies concentrates on the Americanization process, American character, American cultural institutions and/or cultural values, particularly as these shape our concepts and society. ACS serves those students and faculty who are interested in the study of such questions, but find that important aspects of cultural theory, artifacts and values are not fully revealed by the course of study within a single department or college. The program allows students the opportunity to study issues arising specifically from the cultural diversity in American society. Whenever possible, the program takes advantages of the rich curricular offerings of the various departments and colleges within the university.

#### Why Consider an American Cultural Studies Major?

Students who want a liberal arts education of breadth and depth will find that, because of its flexibility, the program adapts well to their needs. The ACS major combines the social sciences with humanities to prepare students with a rich undergraduate background for advanced study in law, domestic social services, public service, government service, education, and graduate work in American studies, ethnic studies and the social sciences.

#### Contact Information

##### Program Director

Dr. Larry J. Estrada

Fairhaven 330

360-650-3016

Larry.Estrada@wwu.edu

#### Sample Careers

Attorney | Public Administration | Higher Education | Social Worker | Marketing Specialist | Firefighter | Teaching English as a Second Language | Consumer Advisor | Community Relations Director | Human Resource Coordinator | Police Officer | Non-Profit Agency Administrator | Public School Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

A formal program of study is initially designed by the student in consultation with a member of the American Cultural Studies faculty. The program is then approved by the Director of American Cultural Studies. No program of study may substantially duplicate an existing departmental or college program. Ordinarily, final approval of the course of study must be granted before senior status is reached.

The student may propose a broad, general program in American Cultural Studies, social science or education concentrations, or focus on one major aspect, for example: ethnic studies, sexuality, myth and folklore or Pacific Northwest studies. In any case, the proposed program must include substantial upper-division work in at least two curricular units of the University. These may include Fairhaven or Huxley colleges.



The faculty recommends that students use a minor to develop special career interests or foci (see, for example, the Asian American Studies minor), or to develop additional depth in one of the traditional academic disciplines or programs of the University.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Courses: 46-50 credits

- One course from:
  - AMST 301 - Comparative Cultural Studies
  - FAIR 366E - Comparative Cultural Studies
- One course from:
  - AMST 499 - Research and Writing
  - LIBR 499 - Special Problems
- Choose a total of three courses from the following options:
  - AMST 206 - The Jewish-American Experience
  - AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience
- One course from:
  - AMST 202 - The American Indian Experience
  - FAIR 263B - The American Indian Experience
- One course from:
  - AMST 203 - The Hispano/a-American Experience
  - FAIR 218C - The Hispano/A-American Experience
- One course from:
  - AMST 204 - The African-American Experience
  - FAIR 219D - The African-American Experience
- One course from:
  - AMST 205 - The Asian-American Experience
  - FAIR 215F - The Asian-American Experience
- Two courses from the social sciences, selected under advisement from:
  - AMST 314 - Contemporary Latino/A Issues
  - AMST 316 - Contemporary African American Issues
  - ENVS 204 - Human Geography
  - FAIR 212E - Coast to Coast on a Piece of Toast: Hoboism and the Great Depression
  - FAIR 374B - The Cultural Creation of Identity
  - PLSC 101 - Government and Politics in the Modern World
  - PLSC 250 - The American Political System
  - PLSC 321 - Queer and Lesbian Gay Bisexual Transgender Politics
  - PLSC 347 - Race, Politics and Public Policy
  - SOC 221 - Introduction to Population Issues
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- One course from:
  - AMST 315 - Contemporary American Indian Issues
  - FAIR 399B - Contemporary American Indian Issues
- One course from:
  - ANTH 104 - American Mosaic: The Cultures of the United States
  - ANTH 353 - Sex and Gender in Culture
- Select one course from:
  - AMST 362 - Asian-American History
  - HIST 263 - African Americans Since 1865
  - HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History
  - HIST 275 - The Indian in American History
  - HIST 353 - Latinas/os in the US West
  - HIST 365 - History of Sexuality in the United States

## AMERICAN CULTURAL STUDIES

HIST 367 - US Women to 1865  
HIST 368 - US Women from 1865  
HIST 461 - US Urban History  
HIST 467 - Self and Society in 19th Century America

☐ Two courses from:

ENG 216 - American Literature  
ENG 227 - Gay, Lesbian, Bisexual and Transgender Literature  
ENG 234 - African-American Literature  
ENG 235 - American Indian Literatures  
ENG 236 - Asian-American Literatures  
ENG 239 - Latina/o Literatures  
ENG 270 - Language and Society  
ENG 338 - Women and Literature in North America and Europe

☐ Select one course from:

A/HI 360 - Nationalism and Cultural Identity, 19th and 20th Centuries  
DNC 232 - Movement and Culture  
FAIR 451X - Resistance Art of the Indigena  
MUS 202 - Jazz: Genesis and Evolution  
MUS 205 - Survey of World Musical Cultures

### Other Requirements

#### **Individualized Program of Study 20-24 credits (selected under advisement)**

A formal program of study is initially designed by the student in consultation with a member of the American Cultural Studies faculty. The program is then approved by the Director of American Cultural Studies. No program of study may substantially duplicate an existing departmental or college program. Ordinarily, final approval of the course of study must be granted before senior status is reached.

The student may propose a broad, general program in American Cultural Studies, social science or education concentrations, or focus on one major aspect, for example: ethnic studies, sexuality, myth and folklore or Pacific Northwest studies. In any case, the proposed program must include substantial upper-division work in at least two curricular units of the University. These may include Fairhaven or Huxley colleges.

The faculty recommends that students use a minor to develop special career interests or foci (see, for example, the Asian American Studies minor), or to develop additional depth in one of the traditional academic disciplines or programs of the University.

## Minor

### **African American Studies Minor**

American Cultural Studies Program, University Interdisciplinary Programs

#### **22-28 credits**

#### **Introduction**

The program in African American studies provides students with an interdisciplinary approach to the history, culture, and politics of peoples of African descent. In addition, this program offers a closer examination of Black leaders, activists, feminists, writers, artists, and scholars and their contributions to the development of the United States.

Courses range from in-depth studies on specific African American topics to classes on comparative political and cultural issues that give context to the Black experience in America. This minor program can be combined with many major designations.

For more information, contact Dr. Bill Lyne, coordinator of the African American Studies minor concentration or Dr. Lawrence J. Estrada, Director of American Cultural Studies.

## Why Consider an African American Studies Minor?

The African American Studies Minor is for students wanting an interdisciplinary approach to the history, culture and politics of peoples of African descent. In addition, this program offers a closer examination of Black leaders, activists, feminists, writers, artists and scholars and their contributions to the development of the United States.

### Contact Information

Bill Lyne  
360-650-3234  
William.Lyne@wwu.edu

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingmajor.shtml](http://www.wwu.edu/careers/students_choosingmajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Courses: 12 credits

#### ☐ One course from:

AMST 301 - Comparative Cultural Studies  
FAIR 366E - Comparative Cultural Studies

#### ☐ One course from:

AMST 204 - The African-American Experience  
FAIR 219D - The African-American Experience

#### ☐ AMST 316 - Contemporary African American Issues

**Elective courses:** Choose from the following lists any number of courses totaling 10 or more credits; as some of these courses do not focus entirely or prominently on African American culture and issues, students must consult with the minor coordinator to receive approval **and** devote their major paper or quarter project to an aspect of African American studies within the discipline of the course. Under advisement of the African American studies minor coordinator, students can choose a course or frame an ISP course that is not contained within the electives listing.

#### ☐ Preferred Electives:

ENG 234 - African-American Literature  
HIST 263 - African Americans Since 1865  
PLSC 347 - Race, Politics and Public Policy

#### ☐ Additional Elective Options:

ENG 310 - Seminar in Literature & Culture: The Long 19th Century \*under advisement only  
ENG 311 - Seminar in Literature & Culture: The 20-21st Century \*under advisement only  
ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America

#### \*under advisement only

FAIR 213D - Slave Narratives and Other Testimonies of the Old South  
FAIR 216B - Testimonies of the New South  
FAIR 261E - Race In/To the Movies I: Race Relations on Film 1900-1950  
FAIR 361E - Race In/To the Movies II: Race Relations on Film: 1950-1980  
HIST 286 - African History, 1800-present  
LBRL 276 - Humanities of Africa  
MUS 202 - Jazz: Genesis and Evolution  
SOC 269 - Race and Ethnic Relations  
SOC 369 - Sociology of Race and Ethnicity

## American Cultural Studies Minor

American Cultural Studies Program, University Interdisciplinary Programs

### 25 Credits

# AMERICAN CULTURAL STUDIES

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Courses: 21 credits

- Choose three courses from the following options:
  - AMST 206 - The Jewish-American Experience
  - AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience
  - One of the following:
    - AMST 202 - The American Indian Experience
    - FAIR 263B - The American Indian Experience
  - One of the following:
    - AMST 203 - The Hispano/a-American Experience
    - FAIR 218C - The Hispano/A-American Experience
  - One of the following:
    - AMST 204 - The African-American Experience
    - FAIR 219D - The African-American Experience
  - One of the following:
    - AMST 205 - The Asian-American Experience
    - FAIR 215F - The Asian-American Experience
- One course from:
  - AMST 301 - Comparative Cultural Studies
  - FAIR 366E - Comparative Cultural Studies
- One course from:
  - ENG 227 - Gay, Lesbian, Bisexual and Transgender Literature
  - ENG 234 - African-American Literature
  - ENG 235 - American Indian Literatures
  - ENG 236 - Asian-American Literatures
  - ENG 239 - Latina/o Literatures
- One course from:
  - AMST 362 - Asian-American History
  - HIST 263 - African Americans Since 1865
  - HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History
  - HIST 275 - The Indian in American History
  - HIST 353 - Latinas/os in the US West
  - HIST 461 - US Urban History
  - HIST 467 - Self and Society in 19th Century America

### Related Courses: 4 credits

For more information, contact Dr. Lawrence J. Estrada, Director of American Cultural Studies.

## American Indian Studies Minor

American Cultural Studies Program, University Interdisciplinary Programs

### 26 credits

### Introduction

The minor in American Indian studies is designed to provide students with in-depth study of the cultures and traditions, histories, and arts of indigenous peoples of the Western Hemisphere. The minor is recommended for students who plan to collaborate with American Indians in research, educational, environmental, creative, and political projects. The concentration is interdisciplinary and allows students to combine it with many major designations.

For more information, contact Tanis S'eiltin, coordinator of the American Indian Studies minor concentration, or Dr. Lawrence J. Estrada, director of the American Cultural Studies program.

### Why Consider an American Indian Studies Minor?

The American Indian Studies Minor is for students wanting an in-depth study of the cultures and traditions, histories and arts of indigenous peoples of the Western Hemisphere. The minor is recommended for students who plan to collaborate with American Indians in research, educational, environmental, creative and political projects.

#### Contact Information

Tanis S'eiltin  
360-650-6564  
Tanis.S'eiltin@wwu.edu

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Core Courses: 16 credits

- One course from:
  - AMST 202 - The American Indian Experience
  - FAIR 263B - The American Indian Experience
- One course from:
  - AMST 301 - Comparative Cultural Studies
  - FAIR 366E - Comparative Cultural Studies
- One course from:
  - AMST 315 - Contemporary American Indian Issues
  - FAIR 399B - Contemporary American Indian Issues
- Any one of the following courses:
  - ANTH 361 - Native Peoples of North America
  - ENG 235 - American Indian Literatures
  - FAIR 451X - Resistance Art of the Indigena
  - HIST 275 - The Indian in American History

##### Elective Courses: 10 credits

- Any related courses under advisement or additional courses from the list above.

### Asian American Studies Minor

American Cultural Studies Program, University Interdisciplinary Programs

#### 27 credits

#### Introduction

The program in Asian American Studies provides for a coherent, integrated and concentrated investigation of peoples of Asian heritage in North America. It also examines separate experiences of Asian Americans and their positions as ethnic minorities in American society and politics. This is accomplished through concentration on Asian American history and its place in North America, situating the literatures and other cultural publications of Asian Americans in a broad context, and engaging contemporary issues with appropriate analytical tools.

# AMERICAN CULTURAL STUDIES

For more information contact Dr. Midori Takagi, coordinator of the Asian American Studies minor concentration, or Dr. Lawrence J. Estrada, Director of American Cultural Studies.

## Why Consider an Asian American Studies Minor?

The Asian American Studies Minor is for students wanting a coherent, integrated and concentrated investigation of peoples of Asian heritage in North America. It also examines separate experiences of Asian Americans as well as their positions as ethnic minorities in American society and politics.

### Contact Information

Midori Takagi  
360-650-7381  
Midori.Takagi@wwu.edu

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingmajor.shtml](http://www.wwu.edu/careers/students_choosingmajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Courses: 17 credits

- One course from:
  - AMST 301 - Comparative Cultural Studies
  - FAIR 366E - Comparative Cultural Studies
- One course from:
  - AMST 205 - The Asian-American Experience
  - FAIR 215F - The Asian-American Experience
- One course from:
  - AMST 344 - Asian-American Psychology
  - FAIR 344P - Asian-American Psychology
- ENG 236 - Asian-American Literatures

### Elective Courses: 10 credits

Three courses from the two categories listed below:

- Contextualizing Asian America
  - ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America \*under advisement only
  - ENG 406 - Topics in Critical and Cultural Theory
  - ENG 408 - Cultural Studies
  - HIST 461 - US Urban History
  - SOC 369 - Sociology of Race and Ethnicity
  - ENG 310 - Seminar in Literature & Culture: The Long 19th Century \*under advisement only
  - ENG 311 - Seminar in Literature & Culture: The 20-21st Century \*under advisement only
- Focusing on Asian America
  - FAIR 362F - We're Not for Sale: History of Asian Women in America
  - FAIR 363B - Suzie Wong to Miss Saigon: Asian Presence in Hollywood
- Other courses under advisement may include, but are not limited to, an ISP of 2 to 5 credits (specially arranged independent learning); internship of 2 to 5 credits (encouraged within the major but may be arranged through the minor); language classes up to 5 credits in the second year or higher of a college- or university-level Asian language; East Asian courses (2 to 5 credits) on approval of the Asian American Studies coordinator. For Independent Study Projects (ISP) and internship guidelines, contact Dr. Midori Takagi.

## Diversity in Higher Education Minor

American Cultural Studies Program, University Interdisciplinary Programs

**24 credits****Introduction**

This interdisciplinary minor will develop multicultural knowledge and competencies that contribute to the development of culturally effective administrators/ practitioners who are open to self-examination, are flexible and knowledgeable about diversity, and are constantly seeking to promote cross-cultural and global understanding. The minor offers an undergraduate background for advanced study in higher education, student affairs administration, as well as graduate studies in public service/public sector areas.

For more information contact Dr. Lawrence Estrada, Director of American Cultural Studies.

**Why Consider a Diversity in Higher Education Minor?**

The Diversity in Higher Education Minor is for students wanting to develop multicultural knowledge and competencies that contribute to the development of culturally effective administrators/practitioners who are open to self examination, are flexible and knowledgeable about diversity, and are constantly seeking to promote cross-cultural and global understanding. The minor offers an undergraduate background for advance study in higher education, student affairs administration, as well as graduate studies in public service/public sector areas.

**Contact Information**

Lawrence Estrada  
360-650-3016  
Lawrence.Estrada@wwu.edu

**Sample Careers**

Designed for students seeking careers in higher education administration and student affairs.

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Advisement for the minor can be secured through the Director of American Cultural Studies, Dr. Lawrence Estrada, 360-650-3016.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements****Core Courses:** 13 or more credits One course from:

AMST 301 - Comparative Cultural Studies  
or FAIR 366E - Comparative Cultural Studies

- AMST 400 - Directed Independent Study and/or Internship in Higher Education/Student Affairs
- COMM 260 - Communication, Identity and Difference
- AHE 375 - Diversity in Higher Education

**Elective Courses:** 11 or more credits

Students must select at least two courses from Theoretical Foundations of Diversity in Higher Education and at least one course from Conceptual Frameworks for Diversity in Higher Education.

 Theoretical Foundations of Diversity in Higher Education

Select at least two courses from the following six groupings:

- AMST 206 - The Jewish-American Experience
- AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience
- AMST 316 - Contemporary African American Issues
- FAIR 313E - Queer Issues in Education
- WGSS 211 - Introduction to Women Studies

## AMERICAN CULTURAL STUDIES

One course from:

AMST 202 - The American Indian Experience  
or FAIR 263B - The American Indian Experience

One course from:

AMST 203 - The Hispano/a-American Experience  
or FAIR 218C - The Hispano/A-American Experience

One course from:

AMST 204 - The African-American Experience  
or FAIR 219D - The African-American Experience

One course from:

AMST 205 - The Asian-American Experience  
or FAIR 215F - The Asian-American Experience

One course from:

AMST 315 - Contemporary American Indian Issues  
or FAIR 399B - Contemporary American Indian Issues

Select at least one course from:

- Conceptual Frameworks for Diversity in Higher Education
  - ANTH 484 - Intercultural Education
  - COMM 225 - Communication, Diversity and Controversy
  - COMM 322 - Civil Discourse as Learning Interaction
  - COMM 325 - Intercultural Communication
  - EDUC 411 - Education and Social Justice
  - HIST 461 - US Urban History
  - HSP 443 - Disability: Individuals and Systems
  - HSP 455 - Diversity & Social Justice Dynamics
  - LDST 420 - Foundations of Student Leadership
  - SOC 269 - Race and Ethnic Relations
  - WGSS 314 - Global Women

### Education and Social Justice Minor (see Secondary Education Department)

Education and Social Justice Minor (see Secondary Education Department)

### Queer Studies Minor

American Cultural Studies Program, University Interdisciplinary Programs

**27 credits**

#### Introduction

The program in Queer studies is an interdisciplinary program designed to educate students about diversity within the LGBTQ community in the United States, and to explore the LGBTQ contributions to shaping U.S. history, culture literature, and politics.

For more information, contact Raine Dozier, coordinator of the Queer Studies minor, or Dr. Lawrence J. Estrada, director of the American Cultural Studies.

#### Why Consider a Queer Studies Minor?

The Queer Studies Minor is for students wanting an interdisciplinary education about the diversity within the LGBTQ community in the United States. Students explore the LGBTQ contributions to shaping U.S. history, culture, literature and politics.

#### Contact Information

Raine Dozier  
360-650-2052  
Raine.Dozier@wwu.edu

#### Major/Career Resources



[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Courses: 18 credits

One course from:

AMST 301 - Comparative Cultural Studies  
FAIR 366E - Comparative Cultural Studies

- AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience  
 ENG 227 - Gay, Lesbian, Bisexual and Transgender Literature  
 HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History

Related Courses: 9 credits

ANTH 353 - Sex and Gender in Culture  
FAIR 313E - Queer Issues in Education  
HIST 365 - History of Sexuality in the United States  
PLSC 321 - Queer and Lesbian Gay Bisexual Transgender Politics  
THTR 428 - Topics in Theatrical Performance

- Other courses under advisement may include, but are not limited to, an ISP of 2 to 5 credits (specially arranged independent learning), and/or an internship of 2 to 5 credits.

## Raza Latina Studies Minor

American Cultural Studies Program, University Interdisciplinary Programs

### 25-27 credits

### Introduction

The program for Raza Latina Studies is designed to educate students about Chicano/Latino cultures and community. It will provide in-depth study of the history, culture, traditions, politics and experiences. This program is recommended for students interested in working with/learning about the Chicano/Latino community. The minor requires 23-27 credits, of which 16 will be required and the remainder, elective. It is recommended that the electives come from the social science, history, literature and language offerings below, though other courses may be chosen under advisement of the Raza Latina Studies minor coordinator. Students also have the option of framing an Independent Study Project with the approval of the minor coordinator.

For more information, contact Dr. Lysa Rivera, coordinator of the Raza Latina Studies minor, or Dr. Lawrence Estrada, Director of American Cultural Studies

### Why Consider a Raza Latina Studies Minor?

The Raza Latina Studies Minor is for students interested in working with/learning about the growing Chicano/Latino community in the U.S. It provides an in-depth study of the history, culture, traditions, politics, diaspora and experiences of diverse peoples.

#### Contact Information

Lysa Rivera  
360-650-2517  
Lysa.Rivera@wvu.edu

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

# AMERICAN CULTURAL STUDIES

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Courses: 17 credits

- ❑ One course from:
  - AMST 203 - The Hispano/a-American Experience
  - FAIR 218C - The Hispano/A-American Experience
- ❑ One course from:
  - AMST 301 - Comparative Cultural Studies
  - FAIR 366E - Comparative Cultural Studies
- ❑ AMST 314 - Contemporary Latino/A Issues
- ❑ ENG 239 - Latina/o Literatures

### Elective Courses: 8 or more credits

Students must select at least one course from the Social Sciences and History options and at least one course from the literature and Language offerings.

- ❑ Social Sciences and History:
  - ANTH 201 - Introduction to Cultural Anthropology
  - ANTH 365 - Peoples of Latin America
  - ANTH 465 - Peoples of Mexico and Central America
  - ANTH 475 - Global Migration
  - ANTH 476 - Borderlands
  - FAIR 364C - El Movimiento Chicano
  - FAIR 372F - Race and Society Within the Latino Caribbean
  - HIST 273 - Latin America: 1492-1824
  - HIST 274 - Latin America: 1824 to the Present
  - HIST 353 - Latinas/os in the US West
  - HIST 474 - U.S. Latin American Relations
  - PLSC 271 - Introduction to International Relations
  - SOC 221 - Introduction to Population Issues
  - SOC 269 - Race and Ethnic Relations
- ❑ Literature and Language
  - ENG 310 - Seminar in Literature & Culture: The Long 19th Century (under advisement)
  - ENG 311 - Seminar in Literature & Culture: The 20-21st Century (under advisement)
  - ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America
  - SPAN 332 - Culture of Latin America
  - SPAN 352 - Survey of the Literature of Latin America

## American Cultural Studies Courses

### AMST 202 - The American Indian Experience

The social and cultural evolution of the first peoples of the Americas. Focus on such aspects as education, self-determination, health issues and urbanization as they impact native indigenous populations. Also listed as FAIR 263B on an S/U grading basis.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### AMST 203 - The Hispano/a-American Experience

The development of the Hispano/a-American community, with emphasis on its history, its social and political institutions, and the effects of education, continuing immigration and economic stratification. Also offered as FAIR 218C.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### AMST 204 - The African-American Experience

An overview of African-American history from an interdisciplinary perspective. Emphasis is on the struggle for social and political equality in a developing capitalist economy. The contemporary

social, economic and political life of African Americans also will be examined. Also offered as FAIR 219D.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

**AMST 205 - The Asian-American Experience**

The history of Asians in the United States, the development of communities and the effects of the encounter between Asian cultures and the developing American cultural context. Also offered as FAIR 215F.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

**AMST 206 - The Jewish-American Experience**

An overview of the Jewish experience in America, past and present Jewish American marginalization, encounters with anti-Semitism and impact on the national scene. Study of Jewish Americans as a secular community, a community of faith, and an American minority ethnic group.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

**AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience**

The development of the lesbian, gay, bisexual transgendered community in the United States, with emphasis on identity formation, historical and sociological influences and the effects of encounters between gay cultures and the larger American cultural context.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

**AMST 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**AMST 301 - Comparative Cultural Studies**

The interaction of immigrant and indigenous cultures with the developing American cultural patterns. Emphasis upon models and concepts of interaction, especially related to African Americans, Native Americans, Asian Americans and Latinos. Also offered as FAIR 366E.

**Prerequisites & Notes:** Introductory-level course: HIST, SOC, ANTH or equivalent;  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

**AMST 314 - Contemporary Latino/A Issues**

The course will familiarize students with theoretical approaches, empirical research, and policy issues relating to the social and historical conditions of Latino/as. By examining the conditions of adaptation, and particularly the implications of exclusion or inclusion, the course critically assesses the close ties that Latino/as have with the multiple dimensions of immigration and borders of many kinds.

**Prerequisites & Notes:** AMST 203 or FAIR 218C or AMST 301 or FAIR 366E.  
**Credits:** 4  
**Grade Mode:** Letter

**AMST 315 - Contemporary American Indian Issues**

A historical and cultural overview of issues in Indian/White relations. Emphasis on issues of sovereignty, land claims, water rights, treaty rights, education, women, economic development, religious freedom, and cultural appropriation. Also offered as FAIR 399B.

**Prerequisites & Notes:** AMST 202 or FAIR 263B or HIST 275.  
**Credits:** 4  
**Grade Mode:** Letter

**AMST 316 - Contemporary African American Issues**

This course is an interdisciplinary examination of contemporary African American issues from the 1970s to the present. The focus will be on the various social, political, and economic issues that affect the African American community including education, economic development, affirmative action, reparations, interracial relations, criminal justice, racial discrimination, and political empowerment among others.

**Prerequisites & Notes:** AMST 204 or FAIR 219D or AMST 301 or FAIR 366E.  
**Credits:** 4  
**Grade Mode:** Letter

# AMERICAN CULTURAL STUDIES

## **AMST 317 - Contemporary Queer Issues**

This course will examine historical and contemporary formations of queerness(es) in relationship to institutions, histories and global technologies of power. These include racialization, colonization, the law, the state, markets, imperialism and the production of knowledge defining "queerness" itself. Through a varied, interdisciplinary archive that includes theory, poetry, fiction, film and activist writings, students will be asked to explore how categories of queerness and sexuality more broadly relate to questions of power, desire and justice in the construction of our social worlds.

**Prerequisites & Notes:** AMST 242; and AMST 301 or FAIR 366E; or instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

## **AMST 344 - Asian-American Psychology**

This course examines the current psychological research on Asian-American individuals and the community, with an emphasis on social psychological research. Topics will include the model minority myth, stereotypes of unassimilation, multicultural identities, perceived exemplary family values, and stigma and mental health. Also offered as FAIR 344P

**Prerequisites & Notes:** AMST 205 or FAIR 215F or PSY 101.  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **AMST 362 - Asian-American History**

Contributions Asian Americans have made to the development of the United States, with emphasis on immigration, adaptation, settlement and their struggle for justice and equality. Also taught as HIST 362.

**Prerequisites & Notes:** Junior standing.  
**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** BCGM

## **AMST 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

## **AMST 412 - Seminar in Educational Equity**

This course has been designed to develop a critical understanding of current issues of educational equity and social justice within the U.S. context. Through research based discussions and participation in symposia, workshops, seminars, and film viewings students will engage and grapple with their own development of critical consciousness and the implications for educators. Also offered as EDUC 412.

**Prerequisites & Notes:** Junior standing or permission of instructor. Preference to students in the Education and Social Justice Minor.  
**Credits:** 4  
**Grade Mode:** Letter

## **AMST 413 - Bridging Barriers with Migrant Youth**

Course explores the barriers migrant students face in graduating from high school and going on to higher education. Course combines theoretical study with a service learning experience focused on supporting migrant youth to overcome the educational challenges they face. All students will take leadership roles in planning, implementing, and evaluating the effectiveness of the Migrant Youth Leadership Conference and outreach efforts with Migrant partner programs. Repeatable up to a maximum of 8 credits, including original course. Also offered as EDUC 413.

**Prerequisites & Notes:** Admission to Minor in Education for Social Justice, or permission of instructor.  
**Credits:** 4  
**Grade Mode:** Letter

## **AMST 451 - The 'Primitive' in Modern Art**

This class will provide students with an alternative understanding of art and art history beginning in the modern era late in the nineteenth century and continuing forward to the 21st century. The study of Primitivism will work to introduce students to early Western concepts of race, art and identity. The investigation of methods with which Indigenous artists and scholars challenge these notions will provide a new lens for understanding the history of colonization, the politics of representation, and various definitions of race and art. Also offered as FAIR 451Y.

**Prerequisites & Notes:** FAIR 202A or AMST 301 or instructor permission.  
**Credits:** 4  
**Grade Mode:** Letter

**AMST 464 - Multicultural Education for Teachers**

Preparation for teaching in a multicultural society. Participants will learn how to design a curriculum that reflects diversity and an instructional methodology that promotes the learning of diverse students. Also offered as ELED 464.

**Credits:** 4

**Grade Mode:** Letter

**AMST 499 - Research and Writing**

Designed to introduce students to primary and secondary sources associated with American cultural studies. Assignments include one major research/writing project and several smaller ones. Also taught as LIBR 499.

**Prerequisites & Notes:** AMST 301 or FAIR 366E; senior status or instructor approval.

**Credits:** 4

**Grade Mode:** Letter

# Canadian-American Studies

## Introduction

The Canadian-American Studies major and minor are designed to expand knowledge of Canada and understanding of Canadian-American issues and problems.

The Canadian-American studies curriculum prepares students for positions in education, businesses, government, communications and international organizations in the U.S., Canada and other areas of the world. Canadian-American Studies combines well with other majors and minors to add depth and international expertise. Examples include combining Canadian-American Studies with: environmental science and policy, international business, geography, anthropology, political science, marketing, communications, history and foreign languages.

Opportunities for study in Alberta, British Columbia, Ontario, and Québec are available.

For program advisement, contact Chuck Hart, program manager, phone 360-650-3728, fax 360-650-3995, e-mail: [Chuck.Hart@wwu.edu](mailto:Chuck.Hart@wwu.edu).

## Participating Canadian-American Studies Faculty

**DAVID ROSSITER**, Director, Center for Canadian-American Studies. Environmental Studies. Canadian geography, environmental history and natural resource management.

**AMIR ABEDI**, Political Science. Comparative politics, European politics.

**TROY ABEL**, Environmental Studies. Environmental policy and resolutions.

**DONALD ALPER**, Professor Emeritus, Political Science. Canadian politics/government.

**BIDISHA BISWAS**, Political Science. Security and counterterrorism.

**DANIEL BOXBERGER**, Anthropology. First Nations, Native Peoples and natural resources.

**PATRICK BUCKLEY**, Geography. Transborder economic modeling and GIS.

**SARAH CAMPBELL**, Anthropology. Pre-history of

the Northwest coast.

**SARAH CLARK-LANGAGER**, Western Gallery Director.

**STEVEN GLOBERMAN**, Kaiser Professor of International Business and Director of the Center for International Business. Canadian economy.

**LEE GULYAS**, English. Canadian Literature.

**VICKI HAMBLIN**, French. French literature.

**CÉCILE HANANIA**, French. Twentieth century French literature and literary theory and Québec culture.

**CAROL JANSON**, Art. Art history.

**T.H. KAMENA**, Political Science. Canadian politics/government.

**CHRISTINA KEPPIE**, French. Acadian culture.

**KEVIN LEONARD**, History. Pacific Northwest history.

**ROBERT LOPRESTI**, Wilson Library. Canadian government information.

**JAMES LOUCKY**, Anthropology. North American borderlands.

**JEAN MELIOUS**, Environmental Studies. Canadian environmental policy and law.

**ROBERT MONAHAN**, Professor Emeritus, Geography. Canadian geography.

**EDWARD OUSSELIN**, French. French cultural studies and film studies.

**NANCY PAGH**, English. Canadian literature.

**THOMAS ROEHL**, Management. International business and management.

**CHRISTOPHER SANDS**, Management. Ross Distinguished Professorship of Canada/U.S. Business and Economic Relations.

**SARA SINGLETON**, Political Science. Public policy and environmental politics.

## Named Professorships

Ross Distinguished Professorship of Canada/U.S. Business and Economic Relations (position is in the College of Business and Economics).

## Study Abroad

The Center for Canadian-American Studies encourages students to spend one or more quarters in a study abroad program in Canada. We offer a number of exchange opportunities with universities across Canada. For more information, please contact Chuck Hart, program manager, phone 360-650-3728 or send e-mail to [Chuck.Hart@wwu.edu](mailto:Chuck.Hart@wwu.edu).

# Bachelor of Arts

## Canadian-American Studies, BA

Canadian-American Studies Program, University Interdisciplinary Programs

50 credits

## Introduction

Canada and the United States are the two most interdependent countries in the world. Virtually all the Fortune 500 companies do business with Canada, as do all large government agencies. Additionally, as the two countries share a continent and its ecosystems, most U.S. environmental organizations have a Canadian presence and interests. The Canadian-American Studies major provides a comprehensive and accessible international experience focusing on Canada and Canada-US relations.

Students pursue areas of study such as Canada-US environmental policy, political and security ties between Canada and the United States, and economic relations between the two nations. The study of the Canada-US relationship also provides a lens through which critical issues facing the global community are examined.

## Why Consider a Canadian-American Studies Major?

The interdisciplinary program encourages students to problem solve and think of big-picture solutions to international issues. Students gain a unique understanding of different intellectual traditions and how to bridge gaps in understanding. This training prepares graduates to take leadership roles in diverse settings that require critical thinking and societal problem solving.

Recent Western graduates have found fulfilling careers working for the Canadian Department of Foreign Affairs and International Trade, directing internet marketing for a Canada-US import/export firm, serving as a US federal government liaison to a municipality for emergency preparedness, working for Google in their map division and coordinating border and emergency management programs for the cross-border Pacific Northwest Economic Region.

### Contact Information

#### Program Director

David Rossiter  
Arntzen Hall 232  
360-650-2821  
David.Rossiter@wwu.edu

#### Undergraduate Advisor

Chuck Hart  
Canada House 102  
360-650-3728  
Chuck.Hart@wwu.edu

### Sample Careers

Policy Analyst | High School Teacher | Program Manager at a Foreign Consulate | US Navy JAG Officer | NGO Education Director | Small Business Owner | University Professor | Legislative Chief of Staff | Tourism/Marketing Officer | Law School Student | Aerospace Manager

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admissions and Declaration Process):

To declare the major, contact the Center for Canadian-American Studies undergraduate advisor, Chuck Hart.

**Advising Tips:** A formal program of study is initially designed by the student in consultation with the Canadian-American Studies Department undergraduate advisor, Chuck Hart.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Track 1 - Canadian-American studies with French language

- C/AM 200 - Introduction to Canadian Studies
- C/AM 401 - Research Problem Identification and Development
- C/AM 402 - Research Analysis and Writing
- Five upper-division ENG credits under advisement
- FREN 201 - Intermediate French
- FREN 202 - Intermediate French

## CANADIAN-AMERICAN STUDIES

- FREN 203 - Intermediate French (or equivalent)
- HIST 277 - Canada: A Historical Survey
- PLSC 406 - Canadian Government and Politics
- One course from:
  - ENVS 331 - Canada: Society and Environment
  - ENVS 430 - Borderlands: Resource Management
- Select additional credits from the following to complete the major:
  - ANTH 361 - Native Peoples of North America
  - ANTH 411 - Archaeology of Northwestern North America
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 476 - Borderlands
  - A/HI 490 - Seminar: Exhibition Theory and Practice
  - C/AM 400 - Directed Independent Study
  - C/AM 410 - Study Canada Summer Institute
  - ECON 364 - Topics in Canadian Economic History
  - ECON 365 - The Canadian Economy
  - ENVS 452 - International Environmental Policy
  - FREN 332 - Civilisation et Culture du Canada Francophone
  - FREN 401 - Elements De Stylistique
  - HIST 376 - French Colonial Canada: 1534-1763
  - HIST 499 - Historical Research (under advisement)
  - JOUR 460 - Special Reporting Project
  - PLSC 301 - The British Parliamentary System
  - SOC 390 - Globalization and Families

### Track 2 (50 credits) - Canadian-American studies with area of concentration

- C/AM 200 - Introduction to Canadian Studies
- C/AM 401 - Research Problem Identification and Development
- C/AM 402 - Research Analysis and Writing
- Five upper-division ENG credits under advisement
- HIST 277 - Canada: A Historical Survey
- PLSC 406 - Canadian Government and Politics
- One course from:
  - ENVS 331 - Canada: Society and Environment
  - ENVS 430 - Borderlands: Resource Management
- Plus 2 upper-division courses in an area of specialization (in consultation with Canadian-American)
- Select additional credits from the following to complete the major:
  - ANTH 361 - Native Peoples of North America
  - ANTH 411 - Archaeology of Northwestern North America
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 476 - Borderlands
  - A/HI 490 - Seminar: Exhibition Theory and Practice
  - C/AM 400 - Directed Independent Study
  - C/AM 410 - Study Canada Summer Institute
  - ECON 364 - Topics in Canadian Economic History
  - ECON 365 - The Canadian Economy
  - ENVS 452 - International Environmental Policy
  - FREN 101 - Elementary French
  - FREN 102 - Elementary French
  - FREN 103 - Elementary French
  - FREN 201 - Intermediate French
  - FREN 202 - Intermediate French
  - FREN 203 - Intermediate French
  - FREN 332 - Civilisation et Culture du Canada Francophone
  - FREN 401 - Elements De Stylistique
  - HIST 376 - French Colonial Canada: 1534-1763
  - HIST 499 - Historical Research
  - JOUR 460 - Special Reporting Project
  - PLSC 301 - The British Parliamentary System



SOC 390 - Globalization and Families

## Minor

### Canadian-American Studies Minor

Canadian-American Studies Program, University Interdisciplinary Programs

**30 credits**

#### Introduction

Canada and the United States are the two most interdependent countries in the world. Virtually all the Fortune 500 companies do business with Canada, as do all large government agencies. Additionally, as the two countries share a continent and its ecosystems, most U.S. environmental organizations have a Canadian presence and interests. The Canadian-American Studies minor provides an overview of Canada and Canada-U.S. relations that will add depth to students' major programs.

#### Why Consider a Canadian-American Studies Minor?

The Canadian-American Studies minor combines well with other majors and minors to add depth and international expertise. Examples include combining Canadian-American Studies with: environmental science and policy, international business, geography, anthropology, political science, marketing, communications, history and foreign languages.

#### Contact Information

**Program Director**

David Rossiter  
Arntzen Hall 232  
360-650-2821  
David.Rossiter@wwu.edu

**Undergraduate Advisor**

Chuck Hart  
Canada House 102  
360-650-3728  
Chuck.Hart@wwu.edu

#### Sample Careers

Policy Analyst | High School Teacher | Program Manager at a Foreign Consulate | U.S. Navy JAG Officer | NGO Education Director | Small Business Owner | University Professor | Legislative Chief of Staff | Tourism/Marketing Officer | Law School Student | Aerospace Manager

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

To declare the minor, contact the Center for Canadian-American Studies undergraduate advisor, Chuck Hart.

**Advising Tips:** A formal program of study is initially designed by the student in consultation with the Canadian-American Studies Department undergraduate advisor, Chuck Hart.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- C/AM 200 - Introduction to Canadian Studies
- HIST 277 - Canada: A Historical Survey
- PLSC 406 - Canadian Government and Politics
- One course from:
  - ENVS 331 - Canada: Society and Environment
  - ENVS 430 - Borderlands: Resource Management

# CANADIAN-AMERICAN STUDIES

- 12 additional credits under advisement from:
  - ANTH 361 - Native Peoples of North America
  - ANTH 411 - Archaeology of Northwestern North America
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 476 - Borderlands
  - A/HI 490 - Seminar: Exhibition Theory and Practice
  - C/AM 400 - Directed Independent Study
  - C/AM 401 - Research Problem Identification and Development
  - C/AM 402 - Research Analysis and Writing
  - C/AM 410 - Study Canada Summer Institute
  - ECON 364 - Topics in Canadian Economic History
  - ECON 365 - The Canadian Economy
  - ENG 415 - Special Topics in National Literatures
  - ENVS 452 - International Environmental Policy
  - FREN 101 - Elementary French
  - FREN 102 - Elementary French
  - FREN 103 - Elementary French (or equivalent)
  - FREN 201 - Intermediate French
  - FREN 202 - Intermediate French
  - FREN 203 - Intermediate French (or equivalent)
  - FREN 332 - Civilisation et Culture du Canada Francophone
  - FREN 401 - Elements De Stylistique
  - HIST 376 - French Colonial Canada: 1534-1763
  - HIST 499 - Historical Research (under advisement)
  - JOUR 460 - Special Reporting Project
  - PLSC 301 - The British Parliamentary System
  - SOC 390 - Globalization and Families

## Canadian/American Studies Courses

### C/AM 200 - Introduction to Canadian Studies

A basic interdisciplinary course of studies covering the major physical, historical and sociopolitical aspects of Canada.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

### C/AM 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### C/AM 325 - Quebec Politics and Quebec-US Relations

This course offers an introduction to Québec politics and Québec-U.S. Relations. Part I uses a historical-institutionalist approach to present the main conceptual and theoretical elements on

Québec politics and offers an overview of recent evolution in Québec's political life. Part II discusses three crucial themes in contemporary Québec politics: the evolution of Québec's identity; the future of Québec's independence movement; and the road ahead for Québec's international relations. Part III shows how Québec and the United States are integrated and offers an overview of the actors and issues in Québec-U.S. relations. Also offered as PLSC 325.

**Prerequisites & Notes:** C/AM 200 or PLSC 101 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### C/AM 331 - Canada: Society and the Environment

This course explores relationships between people and the environment in the territory that has come to be known as Canada; emphasis is placed upon the history of such relationships. Topics include: physical geography, Aboriginal geographies, Native-Newcomer interactions, evolving and contested political boundaries, resource use and ecological crisis, and urban development. Also offered as ENVS 331.

**Prerequisites & Notes:** ENVS 203 or ENVS 204 or ENVS 240 or HIST 277 or C/AM 200 or instructor permission.

**Credits:** 3

**Grade Mode:** Letter

**C/AM 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**C/AM 401 - Research Problem Identification and Development**

Directed research on a problem or in an area of interest.

**Prerequisites & Notes:** C/AM 200, 15 credits of core courses.

**Credits:** 3

**Grade Mode:** Letter

**C/AM 402 - Research Analysis and Writing**

Analysis and writing on the research findings in C/AM 401. A writing proficiency course.

**Prerequisites & Notes:** C/AM 401

**Credits:** 3

**Grade Mode:** Letter

**C/AM 410 - Study Canada Summer Institute**

Intensive survey course featuring expert instruction from WWU faculty and distinguished speakers from Canada and the US. Topics include: Canadian history, geography, government, culture, free trade and environmental issues, First Nations and Canada-US relations. Participants are introduced to a variety of curriculum materials, visit Canada, experience its culture, and develop a curriculum project that meets national standards and expands their personal teaching portfolios. Repeatable to a maximum of 9 credits.

**Credits:** 3

**Grade Mode:** Letter

**C/AM 430 - Borderlands: Resource Management**

Geographic investigation of cross-border resource management and other issues associated with the growing importance of the United States cross-border regions, especially our northern border with Canada; selected trans-border environmental, resource management, sustainability, economic, and urban topics. Also offered as ENVS 430.

**Prerequisites & Notes:** One from: C/AM 200, ENVS 304, ENVS 330, ENVS 331, ENVS 332, ENVS

341, ENVS 342, ENVS 343, ENVS 350, ESCI 330 or Huxley senior status or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**C/AM 441 - Society, Space, and Natural Resources**

This course explores natural resource valuation and management across a variety of political, economic, and cultural spaces in North America; Emphasis is placed on the interaction of social and natural processes in producing management regimes. Also offered as ENVS 441.

**Prerequisites & Notes:** One of: C/AM 331, ENVS 308, ENVS 330, ENVS 331, ENVS 341, ENVS 342, ENVS 343 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**C/AM 442 - Colonial Landscapes in the Pacific Northwest**

This course provides description and analysis of the impact of European imperialism on the development of Pacific Northwest landscapes; the focus is on Indigenous, British, American, and Canadian geographical actions and territorial claims. Also offered as ENVS 444.

**Prerequisites & Notes:** One of: C/AM 331, ENVS 308, ENVS 330, ENVS 331, ENVS 332, HIST 391 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

**C/AM 444 - Canadian Studies Internship**

Work as research and/or management assistant with a local, state or federal government body or private organization. No more than 10 credits in internship may be counted towards the major without permission of the chair. Repeatable up to 15 credits, including original course.

**Prerequisites & Notes:** Completion of 3 of six core classes: C/AM 200; HIST 277; ENVS 331 or ENVS 430; ENG 415 or PLSC 406.

**Credits:** 3-10

**Grade Mode:** Letter

**C/AM 489 - Managing An International Ecosystem**

A research seminar that examines how economic, environmental, social and political agendas affect the shared international ecosystem - Georgia Basin/Puget Sound. Course focuses on the interests of various stakeholders and the efforts taken to manage the cross-border environmental issues. The course involves cross-border travel and

## CANADIAN-AMERICAN STUDIES

field work and thus participants require a passport. In some years, the course will involve collaborations with students and faculty from Canadian Universities. Also offered as ESTU 489 and PLSC 489.

**Prerequisites & Notes:** Junior Status or Permission of Instructor.

**Credits:** 5

**Grade Mode:** Letter

# Energy Studies

## Introduction

Dr. Joel N. Swisher, PE, Director

The Institute for Energy Studies at Western Washington University (WWU) is a unique, multi-college collaboration. Our programs are designed to meet growing demand, from students and Washington's clean energy economy, for interdisciplinary education related to the science, technology, policy and business aspects of human production and use of energy.

Energy technology and policy is always at the nexus of our most daunting economic, environmental and security problems, where solutions require a fundamental understanding and system-level thinking. While energy use drives these problems, understanding the technology and economics of energy use enables powerful solutions in new technologies and policies to improve energy efficiency throughout the economy, reducing costs and emissions.

On the supply side, the electricity industry is evolving from a static, centralized structure toward dynamic, distributed models that meet the challenges of integrating and balancing resources as diverse as solar, wind, hydro, bio- and fossil-fuel energy with smart grids, smart buildings and plug-in vehicles. Technologies to make fossil fuels cleaner and substitute biofuels are in development. Our graduates will find opportunities to develop innovative ideas, from advanced technology to new business models, that transform the energy system toward a more sustainable path.

The energy programs at WWU are designed to be interdisciplinary in a way that provides both breadth and depth, with a practical toolkit of technical and analytic tools in a context of system-level thinking and understanding. We offer a BA in Energy Policy and Management, minors in Energy Science and Energy Policy, and an energy concentration in the Electrical Engineering, BS. As we develop new programs to complete the energy curriculum, students also have an option to design independent programs to suit their interests and abilities, in consultation with faculty and advising staff.

We expect that students will acquire the appropriate foundation in math and science underlying energy processes and systems, in a context of environmental science and greenhouse gas management. They will also learn applied energy economics and have the opportunity to build management or entrepreneurial skills and analytic tools in the key fields of electric power,

energy efficiency and building science. We take a practical approach, using the campus and community as our laboratory and collaborating with leading utilities and energy firms in the region.

Graduates will acquire a strong blend of analytical and communication skills, along with energy-related expertise that energy experts have identified as essential to the workforce needs in Washington's growing clean energy economy. At the same time, the program will integrate core strengths of WWU, including collaboration, practical innovation, community engagement, a global perspective and a sustainability focus, while advancing energy literacy at all levels of instruction.

## Mission

The Institute for Energy Studies integrates rigorous educational programs, applied research and community service to meet the growing demand for interdisciplinary education and training related to the science, technology, policy and business aspects of human production and use of energy.

## Vision

The Institute for Energy Studies is a regional and national leader in providing practical and innovative education of future energy experts and decision makers.

## Faculty

**CHARLES BARNHART** (2014) Assistant Professor. BS (physics and astronomy), University of Washington-Seattle; PhD (planetary geophysics), University of California-Santa Cruz.

**ANDREW BUNN** (2006) Professor and Founding Director, Institute for Energy Studies. BS (zoology) The Evergreen State College; MEM (resource ecology) Duke University; PhD (environmental science), Montana State University-Bozeman.

**MARK BUSSELL** (1990) Director and Professor. BA, Reed College; PhD, University of California-Berkeley.

**REID DORSEY-PALMATEER** (2015) Assistant Professor. BA (Economics), Pomona College; MA, PhD (Economics), University of Michigan.

**DANIEL HAGEN** (1988) Professor. BA, MA, PhD, University of California-Berkeley.

**STEVE HOLLENHORST** (2012) Professor and Dean, Huxley College of the Environment. BS, University of Oregon; MS, University of Oregon; PhD, Ohio State University.

**XICHEN JIANG** (2016) Assistant Professor. BA, University of Illinois; MS, University of Illinois; PhD, University of Illinois (electrical engineering).

## ENERGY STUDIES

**BRAD JOHNSON** (1997) Professor and Associate Dean, College of Science and Engineering. BS, University of Colorado, MS, University of Colorado, PhD, University of Colorado.

**TIMOTHY KOWALCZYK** (2014) Assistant Professor. BS (chemistry and mathematics), University of Southern California; PhD (physical chemistry), Massachusetts Institute of Technology.

**TODD MORTON** (1988) Professor. BSEE, MSEE, University of Washington.

**DAVID PATRICK** (1996) Professor. BS, University of California-Davis; PhD, University of Utah.

**JENNIFER SELTZ** (2012) Assistant Professor. BA, Brown University; MA, PhD, University of Washington.

**ART SHERWOOD** (2014), Professor and Director, IDEA Institute. BA, University of Wisconsin; MBA, Indiana University; MS, Indiana University; PhD, Indiana University.

**SHARON SHEWMAKE** (2013) Assistant Professor. BA, Duke University; PhD, University of California-Davis.

**PETE STELLING** (2011) Assistant Professor. BA, Western State College, Colorado; PhD, University of Alaska-Fairbanks.

**JOEL N. SWISHER, PE** (2014) Professor and Director, Institute for Energy Studies. BS (civil engineering), Stanford University; MS (mechanical engineering), Stanford University; PhD (civil engineering: energy and environmental planning),

Stanford University.

**PHILIP THOMPSON** (2009) Associate Professor. BA, Kent State University; PhD, University of Arizona.

### Other Departmental Information

#### Advising and Declaration Process:

Students must have confirmed admission to Western Washington University and met the grade and course requirements listed below. Students who wish to register for an Energy Studies major or minor should contact the Institute for Energy Studies office (Arntzen Hall 303). Students interested in the electrical engineering major with the energy concentration should contact the Engineering Technology program coordinator/pre-major advisor.

#### Grade Requirements:

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 3.00 or above is required in courses for energy programs.

## Bachelor of Arts

### Energy Policy and Management, BA

Department of Energy Studies, University Interdisciplinary Programs

**109-127 credits**

#### Introduction

The goal of the program is to give students knowledge and analytic skills in the policy and management aspects of today's diverse energy business, along with broad exposure to the science, environmental, business and policy aspects of the energy system that drive the formation and analysis of energy-related policies.

#### Why Consider an Energy Policy and Management Major?

The B.A. in Energy Policy and Management is an interdisciplinary program that gives students knowledge and skills concerning energy policy and the energy business through courses in economics, environmental studies, environmental science, and various business disciplines, while also providing a solid background in basic energy science concepts.

While building a strong blend of analytic and communication skills, students will gain energy-related expertise that industry experts have identified as essential to the workforce needs in the growing clean energy economy. Graduates will be well prepared to enter the workforce, equipped with the knowledge, skills and applied expertise demanded by entrepreneurship or employment in the energy field.

The program will also integrate core strengths of WWU, including collaboration, practical innovation, community engagement, a global perspective and a sustainability focus. The participating departments are

recognized for their outstanding educational programs and demonstrated excellence. This program will foster interdisciplinary thinking, learning and problem solving.

#### Contact Information

##### Institute Director

Joel N. Swisher  
360-650-4424  
Joel.Swisher@wwu.edu

##### Administrative Assistant and Program Advisor

Gail Cowan  
360-650-4422  
Gail.Cowan@wwu.edu

#### Sample Careers

Energy Economist | Energy Efficiency Analyst | Director of Energy Policy | Energy Program Manager | Energy Resource Planner | Renewable Energy Project Manager | Director of Greenhouse Gas Management | Founder, new energy-related enterprise

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Contact the Institute for Energy Studies office at 360-650-4422.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Students enrolled in this degree program are not eligible for Energy Policy Minor.

#### Program Requirements

##### Energy Core

- ENRG 284 - The Business of Energy
- ENRG 380 - Energy and Environment
- Or
- ESCI 380 - Energy and Environment
- ENRG 490 - Energy Capstone: Energy System Synthesis

##### Science Fundamentals

- CHEM 121 - General Chemistry I
- MATH 124 - Calculus and Analytic Geometry I
- Or
- MATH 157 - Calculus With Applications to Business and Economics
- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- Two courses from:
  - BIOL 101 - Introduction to Biology
  - ENRG 101 - Energy and Society
  - ESCI 101 - Environmental Studies: A Scientific Approach
  - GEOL 101 - Introduction to Geology

##### Economy, Policy, and Business Fundamentals

- ACCT 240 - Financial Accounting
- DSCI 205 - Business Statistics
- DSCI 305 - Applied Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 306 - Intermediate Microeconomics (ECON 309 may be substituted for ECON 306)
- ECON 384 - Energy Economics
- Or

## ENERGY STUDIES

ENRG 384 - Energy Economics

- PLSC 250 - The American Political System

And choose one of the following three options:

### Option 1

- ACCT 245 - Managerial Accounting  
And one of the following:  
FIN 341 - Principles of Finance  
OPS 360 - Operations Management

### Option 2

- Choose any two of the following:  
MGMT 271 - Law and the Business Environment  
MGMT 311 - Introduction to Management and Organizational Behavior  
MIS 320 - Principles of Management Information Systems  
MKTG 380 - Principles of Marketing

### Option 3

Complete the Entrepreneurship and Innovation Minor

#### Major Requirements

- ENRG 350 - Energy Policy and Politics  
Or  
ENVS 350 - Energy Policy and Politics
- ENRG 386 - The Economics of Electricity Markets  
Or  
ECON 386 - The Economics of Electricity Markets
- ENRG 449 - Energy Systems Transitions  
Or  
ENVS 449 - Energy Systems Transitions
- ENRG 459 - Advanced Energy Policy  
Or  
ENVS 459 - Advanced Energy Policy
- ENRG 484 - Economics of Alternative Energy  
Or  
ECON 484 - Economics of Alternative Energy

#### Electives

Choose (under advisement) a minimum of 12 credits from the following list of courses:

- ECON 310 - Public Finance
- ECON 343 - Population, Environment, and World Agriculture
- ECON 375 - Introduction to Econometrics
- ECON 383 - Environmental Economics
- ECON 483 - Resource Economics
- ENRG 270 - Energy Science I
- ENRG 360 - Energy Efficient and Carbon Neutral Design  
Or  
ESCI 360 - Energy Efficient and Carbon Neutral Design
- ENRG 366 - Life Cycle and Net Energy Analysis  
Or  
ESCI 366 - Life Cycle and Net Energy Analysis
- ENRG 440 - Public and Stakeholder Engagement in Energy, Climate, and Environmental Policymaking



Or  
 ENVS 440 - Public and Stakeholder Engagement in Energy, Climate, and Environmental Policymaking  
 ENRG 480 - Applications in Energy Production  
 Or  
 ESCI 480 - Applications in Energy Production  
 ENRG 495 - Internship  
 ENVS 320 - GIS I: Introduction to Geographic Information Science  
 ENVS 454 - Environmental Policy Analysis  
 ENVS 493 - Environmental Impact Assessment  
 Or  
 ESCI 493 - Environmental Impact Assessment  
 ESCI 392 - Introduction to Global Change  
 ESCI 492 - Climate Change  
 HIST 354 - Energy in American History  
 ENVS 359 - Greening Business Policy and Practice  
 Or  
 MGMT 359 - Greening Business Policy and Practice  
 PLSC 420 - Environmental Politics  
 Or  
 ENVS 458 - Environmental Politics  
 PLSC 436 - Managing Environmental Commons  
 PLSC 489 - Managing An International Ecosystem

## Minor

### Energy Policy Minor

Department of Energy Studies, University Interdisciplinary Programs

#### 28 Credits

#### Introduction

The goal of the program is to give students a good understanding of the basic science, environmental, and economic issues associated with the formation and analysis of energy-related policies.

#### Why Consider an Energy Policy Minor?

The minor in Energy Policy is an interdisciplinary program designed to meet the needs of a rapidly expanding green-energy economy. Graduates will be well prepared to enter the workforce as leaders, equipped with the knowledge, skills and applied expertise demanded by this dynamic and evolving sector of the global economy. The participating departments are recognized for their outstanding educational programs and demonstrated excellence. This program will support interdisciplinary learning while fostering an approach to problem solving that encourages cross-discipline thinking.

#### Contact Information

##### Institute Director

Joel N. Swisher  
 360-650-4424  
 Joel.Swisher@wwu.edu

##### Administrative Assistant and Program Advisor

Gail Cowan  
 360-650-4422  
 Gail.Cowan@wwu.edu

#### Sample Careers

This minor will be particularly valuable for individuals who seek leadership roles in business or government.

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

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## How to Declare (Admission and Declaration Process):

Students must have confirmed admission to Western Washington University and met the grade and course requirements listed below. Students who wish to register for this minor should contact the Institute for Energy Studies Program Coordinator. Students who are in the Energy Policy and Management, BA are not eligible for this minor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 3.00 or above is required in courses for the minor.

## Requirements

- ENRG 384 - Energy Economics  
or ECON 384 - Energy Economics
  - ENRG 484 - Economics of Alternative Energy  
or ECON 484 - Economics of Alternative Energy
  - ENRG 350 - Energy Policy and Politics  
or ENV5 350 - Energy Policy and Politics
  - ENRG 380 - Energy and Environment  
or ESCI 380 - Energy and Environment
  - Additionally, three courses from the following:
    - ECON 383 - Environmental Economics
    - ENRG 270 - Energy Science I \*\*
    - ENRG 284 - The Business of Energy \*
    - ENRG 360 - Energy Efficient and Carbon Neutral Design  
or ESCI 360 - Energy Efficient and Carbon Neutral Design
    - ENRG 386 - The Economics of Electricity Markets  
or ECON 386 - The Economics of Electricity Markets
    - ENRG 449 - Energy Systems Transitions
    - ENRG 459 - Advanced Energy Policy
    - ENRG 480 - Applications in Energy Production \*\*  
or ESCI 480 - Applications in Energy Production
    - HIST 354 - Energy in American History \*
- \*Students may count only one of these courses toward the minor  
\*\*Students may count only one of these courses toward the minor

## Energy Science Minor

Department of Energy Studies, University Interdisciplinary Programs

### 20-22 credits

### Introduction

The goal of the program is to give students broad exposure to the science, environmental, business and policy aspects of the energy system while ensuring core competency in energy science.

### Why Consider a Minor in Energy Science?

The Energy Science minor is an interdisciplinary program providing broad exposure to the science, business and policy of energy while ensuring core competency in energy science. The extensive scientific prerequisites for the minor make this program a good fit for science and engineering majors who wish to complement a deeper understanding of energy science with a working knowledge of energy policy and business. Graduates will be well prepared to enter the workforce as leaders, equipped with the knowledge, skills and applied expertise demanded by the rapidly-expanding clean energy economy. The participating departments are recognized for their outstanding educational programs and demonstrated excellence. This program will foster interdisciplinary thinking, learning and problem solving.

**Contact Information****Institute Director**

Joel N. Swisher  
360-650-4424  
Joel.Swisher@wwu.edu

**Administrative Assistant  
and Program Advisor**

Gail Cowan  
360-650-4422  
Gail.Cowan@wwu.edu

**Sample Careers**

This minor will be particularly valuable for individuals who pursue technical career tracks, in either physical sciences or engineering, that involve energy resource production, conversion or use.

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students who wish to register for this minor should contact the Institute for Energy Studies Program Coordinator.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Program Requirements**

- Choose one from:
  - ENRG 101 - Energy and Society
  - ENRG 380 - Energy and Environment
  - ESCI 380 - Energy and Environment
- ENRG 270 - Energy Science I
- ENRG 284 - The Business of Energy
- ENRG 370 - Energy Science II
- ENRG 350 - Energy Policy and Politics
  - Or ENVS 350 - Energy Policy and Politics

**Choose one from**

BIOL 416 - Ecosystem Ecology and Global Change  
 BIOL 433 - Quaternary Biogeography  
 CHEM 425R - Surface Chemistry  
 ENGR 170 - Introduction to Materials Science and Engineering  
 ENGR 225 - Mechanics of Materials  
 ENRG 360 - Energy Efficient and Carbon Neutral Design  
   or ESCI 360 - Energy Efficient and Carbon Neutral Design  
 ENRG 366 - Life Cycle and Net Energy Analysis  
   or ESCI 366 - Life Cycle and Net Energy Analysis  
 ENRG 372 - Electrical Power and Electromechanical Devices  
   or EE 372 - Electrical Power and Electromechanical Devices  
 ENRG 374 - Energy Processing  
   or EE 374 - Energy Processing  
 ENRG 378 - Smart and Renewable Power  
   or EE 378 - Smart and Renewable Power  
 ENRG 384 - Energy Economics  
   or ECON 384 - Energy Economics  
 ENRG 386 - The Economics of Electricity Markets  
   or ECON 386 - The Economics of Electricity Markets  
 ENRG 480 - Applications in Energy Production  
   or ESCI 480 - Applications in Energy Production  
 GEOL 311 - Earth Materials  
 GEOL 314 - Engineering Geology  
 GEOL 315 - Minerals, Energy and Society

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GEOL 352 - Introduction to Geophysics  
HIST 354 - Energy in American History  
MSCI 201 - Introduction to Materials Science and Engineering  
PHYS 350 - Engineering Thermodynamics  
PHYS 476 - Physics of Solids and Materials II

### Energy Courses

#### ENRG 101 - Energy and Society

Modern society is completely dependent on vast amounts of cheap energy, but the costs are high. Will we have enough usable energy for a planet of nine billion people? How do our choices in energy production impact the global and local environment? We will address these and other questions surrounding human energy use and try to understand the science, technology, and policy of energy use in the 21st century.

**Credits:** 3

**Grade Mode:** Letter

**GUR Attributes:** SCI

#### ENRG 270 - Energy Science I

Introduction to energy resources and processes within a unified physical framework. Overview of traditional and renewable resources including fossil fuels, nuclear, wind, solar, hydroelectric, geothermal, and biofuels. Energy processes covered include electricity generation and energy storage in batteries and fuel cells. System level issues such as efficiency, transmission, and reliability are also covered.

**Prerequisites & Notes:** MATH 125; PHYS 162; CHEM 121

**Credits:** 3

**Grade Mode:** Letter

#### ENRG 284 - The Business of Energy

Energy is an important sector in national and the world economies. This course will examine private and government-owned energy resource and service providers and will include a brief history of the energy business and differences in characteristics across a variety of energy markets: fossil fuels, nuclear, renewables, and efficiency measures. The impact of government regulatory and tax and subsidy policies on industry and corporate structure and behavior will be examined.

**Prerequisites & Notes:** ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

#### ENRG 300 - Directed Independent Study

An individualized course of study not available

through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

#### ENRG 350 - Energy Policy and Politics

This course will allow students to understand the history of energy policy within the US; gain an understanding of the major actors in energy policy; and explore the implications for energy policy from local to global levels. A specific focus will be placed on energy issues as they pertain to the Pacific Northwest. Also offered as ENV5 350.

**Credits:** Letter

**Grade Mode:** 4

#### ENRG 360 - Energy Efficient and Carbon Neutral Design

Introduction to energy use in buildings and the concept of energy efficiency as a resource. Provides a quantitative but accessible approach to the analysis, design and evaluation of measures to improve energy efficiency and pursue net-zero and/or carbon neutral design. Topics covered include building heating and cooling loads, HVAC system efficiency, solar energy resources and sun angles, passive solar design and rooftop photovoltaic sizing, energy efficient and zero-carbon design for buildings, vehicles, appliances, hot water and HVAC. Also offered as ESCI 360.

**Prerequisites & Notes:** MATH 115; ENRG 101 or ENRG 380 or ESCI 380 or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

#### ENRG 366 - Life Cycle and Net Energy Analysis

Life cycle analysis (LCA) is a powerful tool for assessing the environmental impact associated with all the stages of a product's life from cradle-to-grave (i.e. from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling). This large picture view helps avoid a narrow outlook on environmental concerns and is an excellent method of comparing two potential

products to see which has less impact on the environment. This course will focus on the energetic costs and carbon emissions associated with energy resources and technologies. Also offered as ESCI 366.

**Prerequisites & Notes:** CHEM 121 and MATH 124.

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 370 - Energy Science II**

Introduction to energy resources and processes within a unified physical framework. Overview of traditional and renewable resources including fossil fuels, nuclear, wind, solar, hydroelectric, geothermal, and biofuels. Energy processes covered include electricity generation and energy storage in batteries and fuel cells. Systems-level issues such as efficiency, transmission, and reliability are also analyzed.

**Prerequisites & Notes:** CHEM 123; ENRG 270.

**Credits:** 3

**Grade Mode:** Letter

### **ENRG 372 - Electrical Power and Electromechanical Devices**

A study of electrical power concepts and electromechanical devices' theory, operation and analysis. Topics covered include circuit analysis review, basic electromagnetic theory, three phase power systems, dc machines, synchronous generators, power transformers and induction machines. Also offered as EE 372.

**Prerequisites & Notes:** EE 210

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 374 - Energy Processing**

A study of power electronics devices and circuits applied to power conditioning. Topics covered include switching characteristics of power semiconductor devices, power converter topologies, control techniques in power converters and practical applications of power electronics converters in motor drives. Also offered as EE 374.

**Prerequisites & Notes:** EE 372 or ENRG 372; and EE 320.

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 378 - Smart and Renewable Power**

A study of smart grid and renewable energy technologies. Topics covered include basics of power system operation, smart grid objectives and

main features, alternative energy technologies and interface to utility grid, storage systems technology, Plug-in Hybrid Electric vehicle technology, demand response and demand side management and smart grid monitoring. Also offered as EE 378.

**Prerequisites & Notes:** EE 372 or ENRG 372; EE 374 or ENRG 374; ENRG 270; and EE 360.

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 380 - Energy and Environment**

How do our choices in energy production impact the global and local environment? What does the future hold in terms of human use of energy? This class emphasizes the physical principles behind energy and the effects of energy on the environment. We will explore the interdependence of world economies and environment as well as look at individual opinions and choices on energy related issues. Also offered as ESCI 380.

**Prerequisites & Notes:** CHEM 121, MATH 114.

**Credits:** 3

**Grade Mode:** Letter

### **ENRG 381 - Biofuels**

An examination of current and emerging biofuel technologies including an understanding of the processes for biomass conversion to fuel and other factors associated with commercial biofuel production. Also offered as CHEM 381.

**Prerequisites & Notes:** CHEM 251 or CHEM 351.

**Credits:** 3

**Grade Mode:** Letter

### **ENRG 384 - Energy Economics**

The role of energy in the economy and key aspects of energy supply and demand. Topics include the interrelationships among energy use, economic growth, and the environment; conservation; solar and 'unconventional' energy sources; world oil markets; regulation of gas and electric utilities; and U.S. energy policy. Also offered as ECON 384.

**Prerequisites & Notes:** ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 386 - The Economics of Electricity Markets**

Electricity markets have become more complex in recent years because of new energy production and usage technologies, regulatory changes, and increased environmental concerns. This course will look at demand and supply aspects of electricity

## ENERGY STUDIES

markets, including the impact of government economic and environmental regulation. Emphasis will be on the U.S. electricity market. Also offered as ECON 386.

**Prerequisites & Notes:** ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### ENRG 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### ENRG 440 - Public and Stakeholder Engagement in Energy, Climate, and Environmental Policymaking

We examine different types of civic engagement in public policymaking about energy, climate, and environment through the lens of deliberative democracy. Students will learn to think critically and creatively about how the public, business, and organized interest groups can be effectively involved in policymaking. Also offered as ENVS 440.

**Prerequisites & Notes:** ENVS 304, or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### ENRG 449 - Energy Systems Transitions

This course explores the social and technological changes underway to transition from a fossil fuel based energy system to a low-carbon system. We study the technology involved with existing and evolving electricity, transportation, food, and building energy systems and then interrogate the social, economic, and political structures that substantiate the existing system or promote change to a low carbon future.

**Prerequisites & Notes:** ENVS 304 or ENRG 350 or ENVS 350 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### ENRG 459 - Advanced Energy Policy

The goal of this course is to explore policy making and policy implementation in the context of energy technologies. Using case studies we will reveal the

multidimensionality and tensions implicit in policy debates. We will assemble a toolbox that enables us to innovate, assess, and promote policy options. Focus will be placed on policy solutions such as common pool resource management, community-based social marketing, civic dialogue, and analytic-deliberation. Also offered as ENVS 459.

**Prerequisites & Notes:** ENVS 350 or ENRG 350 or permission of instructor.

**Credits:** 4

**Grade Mode:** Letter

### ENRG 471 - Energy Project Proposal

This is the first of three courses for the interdisciplinary culminating project in the electrical engineering – energy option. Students define objectives, perform research, and prepare project proposals for ENRG 472 and ENRG 473. Also offered as EE 471.

**Prerequisites & Notes:** EE 378 or ENRG 378; and EE 480.

**Credits:** 2

**Grade Mode:** Letter

### ENRG 472 - Energy Project Research and Development

This is the second of three courses for the interdisciplinary energy project. Students complete the research and develop design concepts based on the constraints defined in EE/ENRG 471. Also offered as EE 472.

**Prerequisites & Notes:** EE 471 or ENRG 471

**Credits:** 4

**Grade Mode:** Letter

### ENRG 473 - Energy Project Implementation

This is the third of three courses for the interdisciplinary energy project. Students complete the implementation of an energy related project as defined in EE 471/ENRG 471 and EE 472/ENRG 472. Also offered as EE 473.

**Prerequisites & Notes:** EE 472 or ENRG 472

**Credits:** 4

**Grade Mode:** Letter

### ENRG 480 - Applications in Energy Production

This class is designed to bring students into contact with the industries where energy is produced. In this field-based class we will visit conventional and alternative energy facilities and learn how energy is produced and delivered to consumers. We will pay particular attention to the basic physics, chemistry and biology of energy systems as well as their impacts on the

environment. Also offered as ESCI 480.

**Prerequisites & Notes:** ESCI 380 or ESCI 329 or ENRG 380.

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 484 - Economics of Alternative Energy**

Explores the economics of renewable energy and conservation. The economic history of renewable energy and the existing institutional framework are examined. Considers economic motivations for the expansion of renewable energy and conservation. Existing and prospective policies are analyzed. Examines the challenges associated with integrating renewable sources into existing energy systems. Various quantitative techniques are reviewed and practiced. Also offered as ECON 484.

**Prerequisites & Notes:** ENRG 384 or ECON 384

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 490 - Energy Capstone: Energy System Synthesis**

Students will work with each other, faculty members, and professionals in the energy field to solve a real-world energy related problem. Students will analyze the problem and craft a solution using the knowledge and skills accumulated through prior coursework in the degree program. The course fosters interdisciplinary partnerships between Western students and faculty and professionals and organizations in the industry and government.

**Prerequisites & Notes:** Senior status; Energy Policy and Management majors only.

**Credits:** 4

**Grade Mode:** Letter

### **ENRG 495 - Internship**

Supervised work experience relevant to Energy studies and practical application of academic curriculum. Eligibility outlined in departmental internship guide. Variable credits 1-4; Repeatable to a maximum of 4 credits. S/U grading.

**Prerequisites & Notes:** Declared Energy Policy and Management, BA, student.

**Credits:** 1-4

**Grade Mode:** S/U

# Entrepreneurship and Innovation

## Introduction

Dr. Art Sherwood, Director

The IDEA Institute at Western Washington University (WWU) promotes multi-purpose, interdisciplinary entrepreneurship and innovation. Any student from any college can receive a minor in entrepreneurship and combine it with the focus of their studies here at Western. At the IDEA Institute, entrepreneurship is for everyone. Whether you focus on social justice, environment, arts, education, business, humanities, engineering or any other subject, this interdisciplinary program is designed to provide the knowledge, skills and abilities to successfully engage in entrepreneurial and innovative behaviors in new and existing organizations.

In our programs, students learn how to recognize opportunities and needs, and link them to innovative approaches while bringing resources and people together to make change happen. We explore organizational contexts with varied economic and non-economic purposes and possible ways to effect desired change. Students have the opportunity to gain increasingly deep experience in entrepreneurship and innovation related to their field of study. They will experience a combination of online modules and in-class laboratory learning opportunities with increasing levels of knowledge, experience and practice. Classes are designed to support, connect, challenge and engage participants with further opportunities and engagement experiences both on and off campus.

These programs facilitate experiential growth, community networking and personal application. We seek students and instructors with diverse interests, expertise and experiences to help create a unique culture of leaders, innovators and changemakers.

The Entrepreneurship and Innovation Minor that IDEA offers is multi-purpose, interdisciplinary training which means entrepreneurship is for Everyone so along with students previously studying business, students interested in social entrepreneurship, intrapreneurship or any kind of innovation related to their field of study are encouraged to apply.

Students on the minor track will take 3 courses twice (for a total of 6 classes) throughout their time at Western.

ENTR 246 - Introduction to Entrepreneurship and Innovation: This course lays the foundations for the theory and practice of entrepreneurship and innovation knowledge, skills and abilities. In the context of new and existing organizations with varied economic and non-economic purposes, students will examine opportunity and how to bring innovation to bear on these through bringing together resources and people to effect desired change. Repeatable up to 8 credits, including original course.

ENTR 346 - Intermediate Entrepreneurship and Innovation: This course builds upon the Entrepreneurship Foundations (ENTR 246) course and provides additional student entrepreneurial knowledge, skills and abilities through increasingly deep and complex experiences in and out of the classroom. Students will engage in creation and development of their own ventures, engage with ongoing ventures and will provide coaching/mentoring to earlier stage entrepreneurship students. Repeatable up to 8 credits, including original course.

ENTR 446 - Advanced Entrepreneurship and Innovation: This advanced course builds upon Entrepreneurship Foundations (ENTR 246) and Intermediate Entrepreneurship Experience (ENTR 346) to provide an outwardly focused, deeply experiential and complex set of entrepreneurial learning opportunities. Students will spend significant time applying the knowledge and skills attained to increase their entrepreneurial abilities through multiple, custom built, highly integrated projects and ventures in real-life contexts. Repeatable up to 8 credits, including original course.

## Mission

Our mission is to create more social impact, more on-purpose living, more leadership, more innovation and more community grounded in changemaking and innovation.

## Vision

We envision a community of changemakers. We see a better tomorrow driven by the collaborative work of people today. We envision a dynamic culture where it is the norm to see and understand opportunities and challenges, are connected to a network of enthusiastic, knowledgeable and skilled people from around the world, and are able to access and bring to bear resources to grasp opportunities that meet challenges in innovative and scalable ways.



## Faculty

**ARTHUR L. SHERWOOD** (2014) Assistant Professor. BBA, University of Wisconsin-Madison; MBA, MS, PhD, Indiana University-Bloomington.

## Other Departmental Information

### Advising and Declaration Process:

Students must have confirmed admission to Western Washington University and have met the grade requirements below. Students who wish to register for an Entrepreneurship and Innovation

course should contact the IDEA Institute Director. Students interested in social entrepreneurship, intrapreneurship or any kind of entrepreneurship or innovation related to their field of study are encouraged to apply.

### Grade Requirements:

Students must complete eight credits of ENTR 246 (2 courses) with an average of B or higher to complete the Entrepreneurship and Innovation Minor application form.

## Minor

### Entrepreneurship and Innovation Minor

Department of Entrepreneurship and Innovation, University Interdisciplinary Programs

### 24 credits

### Introduction

The Entrepreneurship and Innovation Minor is an interdisciplinary program designed to provide the knowledge, skills and capabilities to successfully engage in entrepreneurship and innovation behaviors in new and existing organizations having varied purposes (economic and non-economic). Students will learn how to recognize opportunities/needs and link them to innovative approaches while bringing resources and people together in an organizational context to effect desired change. Students will learn about organizational contexts with both economic and non-economic purposes and have the opportunity to gain increasingly deep experiences in entrepreneurship and innovation related to their major field of study.

### Why Consider an Entrepreneurship and Innovation Minor?

The Entrepreneurship and Innovation Minor provides Western's diverse student population the opportunity to gain related knowledge and skills and then experientially apply them in a variety of domestic and international classroom and real-world contexts. The minor takes the perspective that this knowledge and skills can be taught to everybody willing to learn, rather than those born with some special traits. While the minor is highly useful for those desiring to start and grow their own ventures, it is also valuable for those who desire to be entrepreneurs and drive innovative change inside existing organizations. The minor will allow students the opportunity to link entrepreneurship and innovation to their major areas of study, creating a powerful combination for success in the professional world.

### Contact Information

#### Institute Director

Art Sherwood  
360-650-4146  
Arthur.Sherwood@wwu.edu

#### Administrative Assistant

Kristine Baker  
360-650-4146  
Kristine.Baker@wwu.edu

#### Associated Director

Danica Kilander  
360-650-3230  
Danica.Kilander@wwu.edu

### Sample Careers

The minor enhances a student's potential success in their chosen area of study and desired area of work impact. Careers may include any related to a student's major area of study, venture start-ups and growth, work in a variety of existing organizations with varied purposes that are seeking entrepreneurship and innovation including corporations, non-governmental organizations and the government.

# ENTREPRENEURSHIP AND INNOVATION

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students must complete eight credits of ENTR 246 with an average grade of 2.50 or higher, and fill out the Entrepreneurship and Innovation Minor application form. Open to all WWU students.

### Grade Requirements

A GPA of 2.50 or above is required in courses for the minor.

### Requirements

- ENTR 246 - Entrepreneurship and Innovation Foundations (8 credits)
- ENTR 346 - Intermediate Entrepreneurship and Innovation Experience (8 credits)
- ENTR 446 - Advanced Entrepreneurship and Innovation Experience (8 credits)

## Entrepreneurship Courses

### ENTR 246 - Entrepreneurship and Innovation Foundations

This course lays the foundations for the theory and practice of entrepreneurship and innovation knowledge, skills and capabilities in the context of new and existing organizations with varied economic and non-economic purposes. Students will examine opportunities and how to bring innovations to bear on these through bringing together resources and people to effect desired change. Repeatable up to 8 credits, including original course.

**Credits:** 4

**Grade Mode:** Letter

### ENTR 346 - Intermediate Entrepreneurship and Innovation Experience

This course builds upon the Entrepreneurship and Innovation Foundations (ENTR 246) course and provides additional student entrepreneurial knowledge, skills and abilities through increasingly deep and complex experiences in and out of the classroom. Students will engage in creation and development of their own ventures, engage with ongoing ventures and will provide coaching/mentoring to earlier stage entrepreneurship students. Repeatable up to 8 credits, including original course.

**Prerequisites & Notes:** 8 credits of ENTR 246; Admission to the minor or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

### ENTR 446 - Advanced Entrepreneurship and Innovation Experience

This advanced course builds upon Entrepreneurship and Innovation Foundations (ENTR 246) and Intermediate Entrepreneurship and Innovation Experience (ENTR 346) to provide an outwardly focused, deeply experiential and complex set of entrepreneurial learning opportunities. Students will spend significant time applying the knowledge and skills attained to increase their entrepreneurial abilities through multiple, custom built, highly integrated projects and ventures in real-life contexts. Repeatable up to 8 credits, including original course.

**Prerequisites & Notes:** 8 credits of ENTR 346; Admission to the minor or instructor permission.

**Credits:** 4

**Grade Mode:** Letter

# Honors

## Honors Program

### Introduction

Western's Honors Program allows students to combine the best of a private liberal arts college experience (small classes, interaction with professors and other students, and the opportunity to work on research and creative activities with faculty) with the advantages of a much larger public institution, including a wide variety of majors, outstanding academic facilities, and numerous extra-curricular options.

The program is structured in a way that provides a graduated, on-going experience for students as they engage in increasingly sophisticated work while moving through Honors.

Admission is selective-- students apply to join the Program through a supplemental application accessed from the Honors Program website. Transfer students or students already enrolled in the university may apply to the Program on the bases of academic record, a writing sample, and the recommendation of a university or other faculty member.

Students in the Honors Program are eligible for HNRS courses and have the opportunity to undertake extended Honors independent study projects in their major fields.

Students interested in the Honors program should contact the Honors Office, College Hall 07, 360-650-3034, or visit the Honors website, [www.wvu.edu/honors](http://www.wvu.edu/honors), for more information.

### Why Consider an Honors Program Major?

Suggested especially for students seeking a challenging academic experience.

#### Contact Information

Carla Pederson  
College Hall 07  
360-650-3034  
[Carla.Pederson@wvu.edu](mailto:Carla.Pederson@wvu.edu)

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### Grade Requirements

Students must maintain a 3.50 grade point average for the last 90 graded credits of university work.

### Requirements for Graduation through the Honors Program

Classes in the first and second year apply to the student's General University Requirements. Classes may be applied to the GUR area indicated for each class.

#### First-Year Honors:

- HNRS 103 - Major Cultural Traditions I (Humanities)
- HNRS 104 - Major Cultural Traditions II (Humanities)
- HNRS 105 - Major Cultural Traditions III (ACGM)  
or
- HNRS 106 - Major Cultural Traditions IV (BCGM)  
Freshmen with science and mathematics interests are encouraged to consider enrollment in one or more of the following Honors Classes:  
MATH 134 - Calculus I Honors  
MATH 135 - Calculus II Honors  
MATH 138 - Accelerated Calculus  
CHEM 125 - General Chemistry I, Honors  
CHEM 126 - General Chemistry II, Honors

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CHEM 225 - General Chemistry III, Honors

## Lower Division Honors Colloquia:

□ Two Honors Colloquia. Classes are at the 200-level, and a variety is offered each year in areas such as psychology, philosophy, anthropology, and economics. One colloquium is waived for students with credit in one or more of the following courses: MATH 134, MATH 135, MATH 138; CHEM 125, CHEM 126, CHEM 225.

## Upper Division Honors Seminars:

□ A minimum of two Honors seminars. Seminars are offered in a broad array of fields each year, and offerings change from year to year. Classes are numbered 350 and above.

In some cases, students may apply HNRS seminars to their majors or their GURs, with permission of the Honors Program director or the Honors advising staff, and the department concerned.

## Honors Capstone Project:

□ Senior Project is concentrated work in the student's major field, though in exceptional cases work may be done in an allied area. It is not unusual for a student to be engaged in Senior Project work before the final year, especially in the natural sciences. Students may take HNRS 490, Senior Project, as well as research classes in their major department to meet this requirement.

Requirements for already enrolled Western students and transfer students:

- Four Honors seminars
- Senior Project

Additional requirements for graduation through the Honors Program:

A cumulative grade point average of at least 3.50 for the last 90 graded credits of University-level work

## Honors Courses

### HNRS 101 - HNRS 101: The Big Picture

The Big Picture is a common intellectual experience for all new students in the WWU Honors Program. It is a lecture series grounded in Big History, a young transdisciplinary field in which scholars weave together the sum of evidentiary knowledge from all human academic disciplines into a metanarrative that frames human existence in a cosmological context. This course will take a deep look at that story, with engaging lectures by top scholars from across the university.

**Prerequisites & Notes:** Co-requisite: HNRS 103.

**Credits:** 1

**Grade Mode:** Letter

### HNRS 103 - Major Cultural Traditions I

Analysis, interpretation, and discussion of a wide range of texts from ancient times to the 5th century, with emphasis on the Western traditions.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### HNRS 104 - Major Cultural Traditions II

Analysis, interpretation, and discussion of a wide range of texts from the 6th to the close of the 19th century, with emphasis on the Western traditions.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** HUM

### HNRS 105 - Major Cultural Traditions III

Analysis, interpretation, and discussion of a wide range of sources from the contemporary world with major emphasis on a culture outside North America.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### HNRS 106 - Major Cultural Traditions IV

Analysis, interpretation, and discussion of a wide range of sources from the contemporary world with a major emphasis on a North American culture.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### HNRS 201 - Colloquium in Philosophy

An introduction to philosophical methods and to the branches of philosophical inquiry. The class will concentrate on a specific subject or topic in each colloquium, and the area of emphasis will therefore vary from year to year.

**Prerequisites & Notes:** Admission to Honors program.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HNRS 203 - Colloquium in Anthropology**

Introduction to the concepts, methods and practical application of cultural anthropology. The focus is on explanations for social and cultural variation around the world and over time and the significance of holistic and comparative understanding. Class will concentrate on discussion and also will provide students with an opportunity to explore one or more areas of the discipline in some depth.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **HNRS 204 - Colloquium in Psychology**

An introduction to the basic concepts and methods of the discipline of psychology utilizing the results of research investigations. Students will have an opportunity to perform independent work.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **HNRS 205 - Colloquium in History**

The study of history as a discipline, including an introduction to primary sources, source criticism, basic techniques of historical research, and historical writing. Students will study a specific historical issue or event in some depth.

**Prerequisites & Notes:** Admission to Honors Program.  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** HUM

### **HNRS 206 - Colloquium in Political Science**

An introduction of the concept of politics and the types of governments and political issues in the contemporary world, with an emphasis on the comparative study of political ideas and systems. The class will focus on discussion and students will have an opportunity to study one or more areas in depth.

**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **HNRS 209 - Colloquium in Microeconomics**

An introduction to the principles of

microeconomics, including the role of the market in allocating scarce resources, the decision making of economic agents, market and regulatory failures, strategic thinking, and behavioral responses. Students will have the opportunity for extensive discussion and to explore one or more areas of the discipline.

**Prerequisites & Notes:** MATH 112 or higher or equivalent.  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** SSC

### **HNRS 211 - Colloquium in Physics**

An introduction to the basic concepts and practice of physics, including the laws of motion, conservation of energy and momentum, gravitation, electricity and magnetism, sound and light waves, radioactivity, and fission and fusion. The class includes a lab, and students will have an opportunity to study an area of interest in depth.

**Prerequisites & Notes:** MATH 107 or equivalent or higher.  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

### **HNRS 212 - Colloquium in Geology**

Study of the earth including its origins, composition, and evolution of its continents and ocean basins through time. Processes such as plate tectonics, rock formation, climate change, and mountain building, and their effects on surface and subsurface evolution will be studied. The interplay between these Earth processes and human activity is also examined, in topics such as volcanology, earthquakes and flooding. The class includes a laboratory in which identification of minerals and rocks, as well as interpretation of landforms and maps is emphasized. Students will have the opportunity to study a particular area of geology in depth.

**Prerequisites & Notes:** MATH 114 or equivalent or higher.  
**Credits:** 4  
**Grade Mode:** Letter  
**GUR Attributes:** LSCI

### **HNRS 213 - Colloquium in Biology**

An introduction to the study of biology, including molecular and evolutionary processes, the energetics of living systems with emphasis on photosynthesis and respiration in relation to the first and second laws of thermodynamics, and the study of the physical structure of DNA and its involvement in the information flow in the cell. The

## HONORS

class includes a laboratory, and students will have an opportunity to explore a specific, selected area of inquiry.

**Prerequisites & Notes:** MATH 106 or equivalent or higher.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** LSCI

### **HNRS 218 - Colloquium in Women, Gender, and Sexuality Studies**

An introduction to central concepts and methods in women, gender, and sexuality studies. Course may include thematic focus on: postcolonialism, the body and culture, aesthetics, science, state/nation, among other topics.

**Prerequisites & Notes:** First-year Honors sequence recommended.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### **HNRS 221 - Interdisciplinary Colloquium in Science and Social Science**

An examination of the relationship between science and technology and the social and cultural milieu in which they are actually done. Individual classes may center on a single science or deal with a number of case studies dealing with different sciences.

**Prerequisites & Notes:** Admission to the Honors Program.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **HNRS 252 - Colloquium in Sociology**

An introduction to the principles of sociology, including the study of social change, social institutions, and social organizations. The class will also provide an opportunity for concentrated study in one or more areas of the discipline.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **HNRS 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not

eligible for tuition waiver.

**Credits:** 1-15

### **HNRS 350 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 351 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 352 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 353 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 354 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 355 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 356 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 357 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

### **HNRS 358 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

**HNRS 359 - Seminar**

Repeatable with various topics.

**Credits:** 3

**Grade Mode:** Letter

**HNRS 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**HNRS 490 - Senior Project**

Repeatable up to 8 credits, including original course. S/U grading.

**Credits:** 2-4

**Grade Mode:** S/U

# International Studies

## Introduction

International Studies takes an interdisciplinary approach to learning about world issues. The International Studies curriculum focuses on comparative perspectives, histories, and approaches to global citizenship, inter-cultural knowledge, and universal respect.

## Department Mission

The Institute for Global Engagement serves Washington State by providing internationally-

focused educational experiences that prepare students to be global citizens and by supporting faculty and staff who are engaged inter-culturally.

## Declaration Process

Advisement for the minor can be secured through the Executive Director for the Institute for Global Engagement, Professor Vicki Hamblin, Miller Hall 215B, 360-650-4859.

## Additional Information

Additional information regarding international education opportunities at Western can be found at: [international.wvu.edu/](http://international.wvu.edu/).

# Minor

## International Studies Minor

International Studies Program, University Interdisciplinary Programs

### 28 credits

## Introduction

The International Studies Minor provides a global perspective in an interdisciplinary course of study.

The Minor is designed to provide students with the knowledge, perspectives and skills that are critical for global citizenship and careers in an increasingly interrelated world. The Minor consists of (1) completion of an approved international study, exchange, internship, or service-learning program, (2) International Studies courses, (3) the study of a second language, and (4) course work in related fields. Students completing this minor will be well prepared for a variety of professional opportunities.

Advisement for the minor can be secured through the Executive Director for the Institute for Global Engagement, Professor Vicki Hamblin, Miller Hall 215B, 360-650-4859.

## Why Consider an International Studies Minor?

The International Studies Minor can make major coursework more applicable to a particular part of the world, can enhance a major's relevancy to real-world issues, and can instill the principles needed to effectively evaluate experiences from outside one's own borders.

### Contact Information

#### Executive Director

Vicki Hamblin  
Miller Hall 215B  
360-650-4859  
[Vicki.Hamblin@wwu.edu](mailto:Vicki.Hamblin@wwu.edu)

### Sample Careers

The International Studies Minor enhances many different job possibilities; from working with non-governmental agencies in the U.S. and around the world to designing web networks, reporting on events and manufacturing products that cross borders.

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)



**How to Declare (Admission and Declaration Process):**

Advisement for the minor can be secured through the Executive Director for the Institute for Global Engagement, Professor Vicki Hamblin, Miller Hall 215B, 360-650-4859.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- INTL 201 - Introduction to Global Studies
- INTL 401 - Global Issues
- 4-8 credits from an approved international study, exchange, internship, or service learning program.
- 4-5 credits in a modern language at 202 level or above; or, 4-5 credits at 103 level or above for less commonly taught languages.
- Three upper-division elective courses from the following list or other intercultural content courses with approval by the faculty advisor for International Studies; at least two courses to be completed on campus.
  - INTL 302 - Global Citizenship
  - INTL 312 - Globalizations since 1870
  - INTL 334 - International Law
  - INTL 335 - Human Trafficking and Smuggling
  - INTL 336 - The Holocaust
  - INTL 338 - Holocaust Film
  - INTL 361 - Introduction to International Economics and Business
  - INTL 412 - Global Justice
  - ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America
  - FAIR 312D - Issues in International Studies
  - FAIR 334B - Transitional Justice
  - FAIR 334C - International Human Rights
  - FAIR 371E - Nations and Nationalism
  - FAIR 413A - International Childhood
  - HIST 369 - Women, Gender, & Sexuality in African History
  - HIST 385 - West African History

**International Studies Courses****INTL 105 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

**INTL 106 - Education Abroad: Direct Exchange 1**

Credit through international exchanges. Direct Exchange 1 – Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

**INTL 107 - Education Abroad: Direct Exchange 2**

Credit through international exchanges. Direct Exchange 2 – Direct Exchange Semester. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

**INTL 108 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange Plan 3 – Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

## INTERNATIONAL STUDIES

**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 109 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or a similar consortium. Repeatable to a maximum of 30 credits, including original course. S/U grading.

**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 115 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 130 - Education Abroad: ISEP 1**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortium of universities. ISEP 1 – Fall Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 131 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 2 - Two Semesters or Three quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 132 - Education Abroad: ISEP 3**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortium of universities. ISEP 3 – Winter/Spring Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 201 - Introduction to Global Studies**

Introduction to contemporary global issues, drawing on the integrated knowledge and methodologies of multiple disciplines.

**Credits:** 5  
**Grade Mode:** Letter  
**GUR Attributes:** ACGM

### **INTL 205 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 206 - Education Abroad: Direct Exchange 1**

Credit through international exchanges. Direct Exchange 1 – Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 207 - Education Abroad: Direct Exchange 2**

Credit through international exchanges. Direct Exchange 2 – Direct Exchange Semester. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 208 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange 3 – Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.  
**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 209 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or for a similar consortium of universities. Repeatable to a maximum of 30 credits, including original course. S/U grading.

**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 215 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 230 - Education Abroad: ISEP 1**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortium of universities. ISEP 1 – Fall Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 231 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 2 - Two Semesters or Three quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 232 - Education Abroad: ISEP 3**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortium of universities. ISEP 3 – Winter/Spring Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **INTL 301 - Global Principles**

Pre-departure orientation, ethics and intercultural communication issues for study, service work or internships abroad. S/U grading.

**Credits:** 1  
**Grade Mode:** S/U

### **INTL 302 - Global Citizenship**

This class examines the ethical and practical questions raised by traveling, working, studying, reporting, and volunteering internationally. By exploring the social, cultural, historical, political, and economic contexts in which international engagement takes place, students will develop a critical lens with which to evaluate their own place in an increasingly interdependent world.

**Prerequisites & Notes:** INTL 201 or permission of instructor.

**Credits:** 5  
**Grade Mode:** Letter

### **INTL 305 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 0-30  
**Grade Mode:** S/U

### **INTL 306 - Education Abroad: Direct Exchange 1**

Credit through international exchanges. Direct Exchange 1 – Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30  
**Grade Mode:** S/U

### **INTL 307 - Education Abroad: Direct Exchange 2**

Credit through international exchanges. Direct Exchange 2 – Direct Exchange Semester. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30  
**Grade Mode:** S/U

## INTERNATIONAL STUDIES

### **INTL 308 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange 3 – Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 309 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or for a similar consortium of universities. Repeatable to a maximum of 30 credits, including original course. S/U grading.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 312 - Globalizations since 1870**

Overview of the global political economy and the expansions of the capitalist system from the late nineteenth century to the early twenty-first, from the era of globalization before World War I to our current era of globalization since 1973, via Two World Wars, the Great Depression, decolonization, and the Cold War. Examines facets of the history, politics, economics, sociology, and culture of globalization, the increased mobility of goods, people, capital, and ideas around the world. Also offered as FAIR 312F.

**Prerequisites & Notes:** INTL 201; ECON 206 or HNRS 209 recommended.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

### **INTL 315 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 330 - Education Abroad: ISEP 1**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 1 – Fall Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education

Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 331 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 2 – Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 0-30

**Grade Mode:** S/U

### **INTL 332 - Education Abroad: ISEP 3**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 3 – Winter/Spring Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 334 - International Law**

This course is an introduction to public international law, which governs the relations of States and increasingly, other non-State actors, including individuals and organizations. The course will cover the basic doctrines of public international law and the international legal system. Topics to be covered include the law of treaties, international organizations, international courts and dispute settlement, international law and the use of force. Other topics include issues of self-determination, environmental protection, international human rights and international criminal law. These principles will be applied to contemporary issues of international law as it continues to evolve. Also offered as FAIR 334F.

**Prerequisites & Notes:** FAIR 203A or INTL 201 or permission of instructor.

**Credits:** 4-5

**Grade Mode:** Letter

### **INTL 335 - Human Trafficking and Smuggling**

Interdisciplinary examination of the various manifestations of human trafficking and human smuggling: human trafficking, bonded labor, forced labor, worst forms of child labor, organ trafficking, prostitution and sexual slavery. Examines the rise and growth, and the cross-sectoral consequences of trafficking and smuggling. Examines the challenges of addressing human trafficking and human smuggling, and the appropriate policy

responses to the problem by State and non-State actors around the world. Also offered as FAIR 334K.

**Prerequisites & Notes:** FAIR 203A or INTL 201.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** ACGM

### INTL 336 - The Holocaust

Interdisciplinary examination of the origins, course, and aftermath of the Nazi Holocaust. Situates the Holocaust within the multiple genocides around the world in the twentieth century. Examines the responses of targeted groups, survivor accounts (including the impact on children of the victims and perpetrators), and issues of memorialization, politicization, representation, and sacralization of the Nazi Holocaust. Also offered as FAIR 334L.

**Prerequisites & Notes:** FAIR 203A or INTL 201.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** BCGM

### INTL 338 - Holocaust Film

Focuses on cinematic treatments and complex issues surrounding the representation of the Holocaust. Highlights the representation in films of how the victims attempted to hide; how the Germans rounded them up, took them to camps and killed them, as well acts of courage and resistance by victims, perpetrators and bystanders. Examines how cinematic 'kitsch' and the voyeurism of uninformed audiences around the world have adulterated public memory of the Holocaust. Also offered as FAIR 334S.

**Prerequisites & Notes:** FAIR 201A or ENG 101 or INTL 201.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** HUM

### INTL 361 - Introduction to International Economics and Business

This course provides an overview of the world economy and of the role of businesses in international trade and investment. Students will learn about the causes of globalization and examine its consequences for individuals, nations and businesses. The focus of the course will be on examining the impact of international trade and business on economic well-being. Also offered as ECON 361.

**Prerequisites & Notes:** ECON 101 or ECON 206 or HNRS 209.

**Credits:** 4

**Grade Mode:** Letter

### INTL 400 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### INTL 401 - Global Issues

A capstone course in which globally-focused themes, issues, or actions are engaged from various approaches and perspectives. Students will develop an individual project through several stages of research and revisions then present the results publicly. Students will also participate in co-curricular activities and report on them to the class.

**Prerequisites & Notes:** INTL 201 and junior status.

**Credits:** 5

**Grade Mode:** Letter

### INTL 405 - Education Abroad

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### INTL 406 - Education Abroad: Direct Exchange 1

Credit through international exchanges. Direct Exchange 1 – Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### INTL 407 - Education Abroad: Direct Exchange 2

Credit through international exchanges. Direct Exchange 2 – Direct Exchange Semester. Repeatable. S/U grading.

## INTERNATIONAL STUDIES

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 408 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange 3 – Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 409 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or for a similar consortium. Repeatable to a maximum of 30 credits, including original course. S/U grading.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 412 - Global Justice**

Examination of the question of justice in a globally interconnected world, including the moral duties we as individuals, societies and governments have to those disadvantaged by world economy and global institutions. Also offered as FAIR 412D.

**Prerequisites & Notes:** INTL 201 or FAIR 203A or FAIR 210A.

**Credits:** 5

**Grade Mode:** Letter

### **INTL 415 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 430 - Education Abroad: ISEP 1**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 1 – Fall Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 431 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 2 – Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 432 - Education Abroad: ISEP 3**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 3 – Winter/Spring Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from Education Abroad.

**Credits:** 1-30

**Grade Mode:** S/U

### **INTL 505 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior approval by the Graduate School are required.

**Credits:** 1-24

**Grade Mode:** S/U

### **INTL 506 - Education Abroad: Direct 1**

Credit through international exchanges. Direct Exchange 1 – Direct Exchange Two Semesters or Three Quarters. Repeatable up to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior approval by the Graduate School are required.

**Credits:** 1-24

**Grade Mode:** S/U

### **INTL 507 - Education Abroad: Direct 2**

Credit through international exchanges. Direct Exchange 2 – Direct Exchange Semester. Repeatable to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior approval by the Graduate School are required.

**Credits:** 1-24

**Grade Mode:** S/U

### **INTL 515 - Global Internship/Field Study**

International internships, international independent study projects, international work experience approved by departments or colleges. Repeatable up to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior approval by the Graduate School are required.

**Credits:** 1-24

**Grade Mode:** S/U

# Leadership Studies

## Introduction

The Leadership Studies program engages students in the formal study of leadership as a phenomenon that students observe, reflect on, and participate in. Through Leadership Studies, students become familiar with the practice and consequences of leadership in a variety of cultural and historical contexts. Empirical research, reflective inquiry, critical thinking, and the analysis of leadership theory, research, and practice are integral to the Leadership Studies program. While Leadership Studies are based in the social sciences, curricular initiatives will include interdisciplinary contributions from the arts, humanities, sciences, and applied and professional studies.

## Program Objectives

Students in Leadership Studies will develop knowledge in the following areas of study:

- the definition of and impact of leadership

## Leadership Studies Minor

Leadership Studies Program, University Interdisciplinary Programs

### 24 credits

## Introduction

The Leadership Minor provides a focused course of study and reflective practice in leadership that enables students to combine formal learning of leadership foundations and leadership skills. The Minor enables students to develop knowledge, skills and experience in leadership that are transferable to a wide range of civic and career settings.

## Why Consider a Leadership Studies Minor?

The Leadership Minor provides a focused course of study and reflective practice in leadership that enables students to combine formal learning of leadership foundations and leadership skills. The minor enables students to develop knowledge, skills and experience in leadership that are transferable to a wide range of civic and career settings.

- the cultural and contextual forces that influence leadership processes and outcomes
- theories of leadership and their implications for leadership practice and development
- the relationship between leadership and power in social relations
- the connection between leadership style and team effectiveness
- the role of leadership in creating and managing change
- the ethical issues and consequences of leadership action
- the process of leadership development

For more information, contact the Karen W. Morse Institute for Leadership at 360-650-4000 or visit Arntzen Hall 406.

## Faculty

**KAREN ROHRBAUCK STOUT** (2000) Bowman Distinguished Professor of Leadership Studies and Director of the Karen W. Morse Institute for Leadership. BA, University of Puget Sound; MA, University of Montana; PhD, University of Utah.

## Contact Information

**Karen Stout**  
Arntzen Hall 301  
360-650-2563  
Karen.Stout@wwu.edu  
Sample Careers

**Courtney Baxter**  
Arntzen Hall 406  
360-650-4000  
Courtney.Baxter@wwu.edu

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)



**How to Declare (Admission and Declaration Process):**

Dependent upon completion of LDST 101 with a grade of B or greater and completion of the Leadership Minor plan of study form.

**Grade Requirements**

A grade of C- or better is required for a student's minor courses, and supporting courses for the minor with the exception of LDST 101 which has a requirement of a grade of B or better.

**Requirements**

- LDST 101 - Introduction to Leadership Studies
- At least one Foundation Course from the following:
  - COMM 224 - Small Group Processes
  - COMM 225 - Communication, Diversity and Controversy
  - COMM 228 - Organizational Communication
  - COMM 325 - Intercultural Communication
  - LDST 420 - Foundations of Student Leadership
  - LBRL 281 - Representations of Otherness
  - MGMT 311 - Introduction to Management and Organizational Behavior
  - PSY 240 - Social Psychology
  - SOC 340 - Sociology of Organizations
- At least one Applied Course from the following:
  - COMM 331 - Advanced Public Speaking
  - LDST 340 - Peer Leadership Education
  - LDST 341 - Practicum in Applied Leadership
  - LDST 450 - Leadership and Pedagogy
  - MGMT 414 - Leadership Practicum
  - THTR 314 - Stage Management
- Elective course(s) under advisement by faculty advisors for Leadership Studies
- LDST 495 - Leadership Reflection and Development
- The minor may include no more than 4 credits from the following:
  - LDST 300 - Directed Independent Study
  - LDST 341 - Practicum in Applied Leadership
  - LDST 400 - Directed Independent Study

## Leadership Studies Courses

**LDST 100 - Leading Responsibly**

Introduction to and critical examination of select virtues and character strengths associated with leading responsibly. Topics studied in class will be applied in a service learning experience.

**Prerequisites & Notes:** Exclusively required of students admitted to WWU as a Western Leadership Scholarship recipient.

**Credits:** 2

**Grade Mode:** Letter

**GUR Attributes:** SSC

**LDST 101 - Introduction to Leadership Studies**

An introduction to leadership theory, research and practice in small groups, organizational and

societal contexts.

**Credits:** 5

**Grade Mode:** Letter

**GUR Attributes:** SSC

**LDST 300 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

**LDST 340 - Peer Leadership Education**

Learn peer leadership training methodology from trainee/group needs assessment to module

## LEADERSHIP STUDIES

design/delivery and post-module evaluation. In pairs or teams, design a student leadership training module for an existing student group or team, deliver and evaluate effectiveness of that training module. Deepen leadership knowledge and skills.

**Prerequisites & Notes:** Sophomore, junior or senior status and instructor's permission.

**Credits:** 3

**Grade Mode:** Letter

### **LDST 341 - Practicum in Applied Leadership**

Supervised work in leadership with an educational program or institution, public agency, private enterprise, or non-governmental organization. Meetings, written reports, and a paper related to the Practicum are required. Repeatable up to 6 credits including original course. A maximum of 4 credits may be applied to the LDST minor.

**Prerequisites & Notes:** Sophomore, junior or senior status and instructor permission.

**Credits:** 2-6

**Grade Mode:** Letter

### **LDST 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **LDST 420 - Foundations of Student Leadership**

Introduces leadership theories and facilitates student understanding of their leadership styles and strategies as emerging leaders.

**Prerequisites & Notes:** Recommendation for enrollment by faculty/staff.

**Credits:** 3

**Grade Mode:** Letter

### **LDST 450 - Leadership and Pedagogy**

Serve as discussion section leader for students taking Introduction to Leadership Studies. Learn instructional methods, gain further mastery of leadership course content and personal leadership skills. Lead discussions, and provide feedback for students enrolled in Introduction to Leadership Studies.

**Prerequisites & Notes:** LDST 101 and instructor permission.

**Credits:** 5

**Grade Mode:** Letter

### **LDST 495 - Leadership Reflection and Development**

Integration and development of leadership skills through reflective practice.

**Prerequisites & Notes:** Instructor's permission; Completion of LDST 101 with a minimum grade of B; 20 credits toward the Minor in Leadership Studies.

**Credits:** 2

**Grade Mode:** Letter

# Seminar

## Seminar Courses and the FIG Program

The First-Year Interest Group (FIG) program offers entering students a chance to satisfy General University Requirements (GURs) at the same time that they participate in a learning community for freshmen only. FIG students co-enroll in two designated GUR classes and a small seminar (SMNR 101). FIG clusters are limited to first-year students and are available fall quarter only. While the GUR courses in a FIG cluster will usually be large, the attached SMNR 101 is limited to 25 students.

The FIG seminar provides first-year students with access to resources that can help with their transition to Western. The program emphasizes faculty-student and student-student interaction as well as deeper learning.

The FIG seminar uses the context from the linked GUR lecture courses as a context for fostering critical thinking and building academic competencies.

For more information, contact the FIG Director, Steven VanderStaay, Old Main 480B, 360-650-3004, or via e-mail at [Steven.Vanderstaay@wwu.edu](mailto:Steven.Vanderstaay@wwu.edu).

## Seminar Courses

### **SMNR 101 - Seminar in the Liberal Arts and Sciences for First-Year Students**

An introductory seminar offering an exploration of academic content and essential questions within the liberal arts and sciences tradition. Includes embedded instruction in academic skills and use of campus resources pertinent to exploration of the FIG cluster theme. Concludes in a formal paper or academic presentation. FIG seminars are linked to FIG clusters or GUR strands. Repeatable under different topics.

**Prerequisites & Notes:** First-year students only.

**Credits:** 2

**Grade Mode:** Letter

**GUR Attributes:** FIG

## Western Libraries

Western Libraries, with its Learning Commons partners, offers an array of resources, programs, and services designed to advance student learning and scholarship. Curricular offerings include credit-bearing courses on information literacy and special topics. Co-curricular services include tours and orientation sessions as well as opportunities for structured dialogue with faculty, staff, and community members. Curricular-embedded programming provides research and writing assistance for students in courses across disciplines through integrated research and writing workshops. In all its offerings, the Libraries helps students develop intellectual and practical skills for success while at Western and long after they graduate.

### Library Faculty

**MARK GREENBERG** (2013) Dean of Libraries and Professor. BA, University of Toronto; MA, University of Western Ontario; PhD, University of Florida; MLS, University of South Florida.

**JEANNE ARMSTRONG** (1997) Professor. BA, University of Dayton; MLS, Dominican University; PhD, University of Arizona.

**MARGARET FAST** (1997) Associate Professor. BA, Mills College; MA, University of British Columbia; MLS, State University of New York at Albany.

**J. GABRIEL GOSSETT** (2009) Associate Professor. Extended Education and Human Services Librarian, BA, University Wisconsin-Milwaukee; MLS, University Wisconsin-Madison.

**ELIZABETH JOFFRION** (2012) Associate Professor. Director of Heritage Resources; BA, Louisiana State University; MA, University of New Orleans; MLS, University of Maryland.

**ROBERT LOPRESTI** (1987) Professor. BA, Juniata College; MLS, Rutgers, The State University.

**REBECCA MARRALL** (2010) Associate Professor. Discovery Services Librarian; BS, Portland State University; MLS, University of Hawaii.

**JENNY OLEEN** (2014) Assistant Professor. Scholarly Communications Librarian; BS, Kansas State University; BS, University of Arizona; MLS, Indiana University.

**MIKE OLSON** (2014) Associate Professor. Director of Scholarly Resources and Collection Services; BA, University of Washington; MA, UCLA; PhD, UCLA; MLS, UCLA.

**ANDREA PETERSON** (1999) Associate Dean of Libraries. BA, University of Utah; MLS, Indiana University.

**PAUL PIPER** (1997) Professor. BS, MFA, University of Montana; MLIS, University of Hawaii.

**JEFF PURDUE** (1999) Associate Professor. BA, MA, University of Illinois at Chicago; MLIS, Dominican University.

**MARIAN A. RITTER** (1969) Associate Professor. BME, MLS, University of Portland.

**PETER A. SMITH** (1990) Associate Professor. BA, MA, MLS, Wayne State University.

**ELIZABETH STEPHAN** (2008) Associate Professor. BA, NW Missouri State University; MLS, University of Wisconsin-Madison

**SYLVIA TAG** (1997) Associate Professor. BA, The Colorado College; MLIS, University of Iowa.

## Library Courses

### LIBR 201 - Introduction to Research Strategies

Introduction to the nature of research and the interpretation of information. Emphasizes information literacy, including: carrying out inquiry, locating both print and online resources, analyzing and interpreting a variety of sources for authority and authenticity, and incorporating material from sources into writing.

**Prerequisites & Notes:** ENG 101 or equivalent.

**Credits:** 4

**Grade Mode:** Letter

**GUR Attributes:** CCOM

### LIBR 300 - Directed Independent Study

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### LIBR 302 - Research Paper Tutorial

This course is intended to be linked with upper-level writing intensive courses. The purpose of this course is to familiarize students with the methods of identifying the relevant body of knowledge in a discipline and the library research methods that will enable them to utilize this knowledge in successfully writing assigned research papers. Includes developing a research strategy and collecting resources for an annotated bibliography to accompany an assigned research paper in a linked 300-level course.

**Prerequisites & Notes:** concurrent enrollment in 300-level writing intensive course

**Credits:** 1-4

**Grade Mode:** Letter

### LIBR 302A - Research Paper Tutorial

This course is intended to be linked with upper-level writing intensive courses. The purpose of this course is to familiarize students with the methods of identifying the relevant body of knowledge in a discipline and the library research methods that will enable them to utilize this knowledge in successfully writing assigned research papers. Includes developing a research strategy and collecting resources for an annotated bibliography to accompany an assigned research paper in a linked 300-level course.

**Prerequisites & Notes:** coreq: EAST 302, HIST 499

**Credits:** 1 to 4

**Grade Mode:** L

### **LIBR 320 - Topics in Information Studies**

Varying topics and information studies including emerging technologies and trends in scholarly research. Repeatable to a maximum of 6 credits.

**Credits:** 1-3

**Grade Mode:** Letter

### **LIBR 339 - Practicum in Academic Literacies: Research-Writing Emphasis**

Through individualized learning plans developed in consultation with the instructor, students will gain and apply research, reading, and writing strategies for completing their coursework. LIBR 339 should be paired with GUR or upper division coursework. Repeatable to a maximum of 6 credits including the original course. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 1-3

**Grade Mode:** S/U

### **LIBR 340 - Practicum in Academic Literacies: Speaking-Listening Emphasis**

Through participation in Western's Teaching-Learning Academy, students gain and apply concepts and strategies for facilitating civil discourse in an academic setting. Informed by reading selected articles on the nature of civil discourse, practicum students facilitate small dialogue groups and do midterm and final reflective commentaries on what they have learned about speaking and listening in an academic context regarding teaching and learning issues. With approval from the instructor, practicum students may choose to earn additional practicum credit by participating in follow-up TLA-related projects. Repeatable up to 12 credits including original course. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 1-3

**Grade Mode:** S/U

### **LIBR 400 - Directed Independent Study**

An individualized course of study not available through or replacing existing curriculum, to be arranged between one matriculating student and sponsoring faculty member. All academic policies and registration deadlines apply. Directed Independent Study courses cannot substitute for General University Requirements and are not eligible for tuition waiver.

**Credits:** 1-15

### **LIBR 402 - Research Tutorial**

Examines library resources, research processes, and scholarly discourse for upper-division students in a particular discipline. An upper-division library course intended to support advanced research methodologies for students in a particular major. Not repeatable. Letter graded. Equivalent to LIBR 403. Cannot take both LIBR 402 and 403 for credit.

**Prerequisites & Notes:** Junior or Senior status or permission of instructor.

**Credits:** 1-4

**Grade Mode:** Letter

### **LIBR 403 - Research Tutorial**

Examines library resources, research processes, and scholarly discourse for upper-division students in a particular discipline. An upper-division library course intended to support advanced research methodologies for students in a particular major. Not repeatable. S/U grading. Equivalent to LIBR 402. Cannot take both LIBR 402 and 403 for credit.

**Prerequisites & Notes:** Junior or Senior status or permission of instructor.

**Credits:** 1-4

**Grade Mode:** S/U

### **LIBR 439 - Practicum in Academic Literacies: Research-Writing Emphasis**

Through individualized learning plans developed in consultation with the instructor, students will gain and apply research, reading, and writing strategies for completing their coursework. LIBR 439 should be paired with 400-level coursework or above. Repeatable to a maximum of 6 credits including the original course. S/U grading.

**Prerequisites & Notes:** Instructor permission.

**Credits:** 1-3

**Grade Mode:** S/U

## WESTERN LIBRARIES

### **LIBR 473 - Methods for Writing Assistants**

Study and practice in theories and strategies for guiding writers, in groups or one-to-one, online or face-to-face. Repeatable up to 6 credits, including original course. S/U grading.

**Prerequisites & Notes:** Selection as a Writing Center Assistant.

**Credits:** 1-3

**Grade Mode:** S/U

### **LIBR 499 - Special Problems**

Research designed to demonstrate the student's competence in working with the tools of the discipline. Also offered as AMST 499.

**Prerequisites & Notes:** AMST 301

**Credits:** 4

**Grade Mode:** Letter

## All-University Programs

Western Washington University is organized into seven colleges and a Graduate School. This organization not only accommodates Western's size and complexity, but also enables flexibility and innovation in Western's curriculum.

Some programs at Western are available through one department or college; some are interdisciplinary, involving several academic units; and some, the All-University Programs listed below, involve all or most of Western's departments and colleges.

### Institute for Global Engagement

360-650-7544  
international.wwu.edu

The Institute for Global Engagement (IGE) serves Washington State by providing internationally-focused educational experiences that prepare students to be global citizens and by supporting faculty and staff who are engaged inter-culturally.

The International Studies Minor is housed in IGE, with the executive director of the institute serving as academic advisor and the International Studies Curriculum Committee advising on the minor's content and focus. The institute also coordinates Western's international partnerships with institutions around the world and works with faculty on internationalization initiatives at Western.

The Education Abroad office and International Student and Scholar Services are both located in IGE.

### Education Abroad

The Education Abroad office (EdAbroad) administers and cooperates in more than 100 international education programs in Asia, Europe, Latin America, Middle East, Oceania and Africa. A variety of international study, exchange and internship options are available for a quarter, semester, or academic year. Qualified students for all international study and exchange programs are concurrently enrolled at the University and in the international study program or institution; they earn WWU credit while maintaining WWU student status, financial aid eligibility and residency.

For more information, contact the Education Abroad office, Miller Hall 208, 360-650-3298, EdAbroad@wwu.edu; studyabroad.wwu.edu.

## Global Learning Programs

Global Learning Programs are courses designed by WWU faculty within their departments that are discipline-specific or interdisciplinary, and often apply to a student's major or minor. Courses may include field studies and service learning. Global Learning Programs are led by WWU faculty throughout the year to different countries around the world.

For more information, contact the Education Abroad office in Miller Hall 208, 360-650-3298, EdAbroad@wwu.edu; studyabroad.wwu.edu.

### International Student and Scholar Services

The ISSS Office serves international students, faculty and scholars at Western by providing orientation sessions, advising, and co-curricular activities as well as preparation and maintenance of immigration records. In coordination with other university offices and community resources, ISSS also assists with resolving financial, personal, academic, and employment issues for Western's international population.

For more information, contact International Student and Scholar Services, Miller Hall 212, 360-650-6517; www.wwu.edu/iss.

### Center for Service-Learning

360-650-7542  
www.wwu.edu/csl

Service-learning is an experiential learning method in which students learn through active participation in meaningful service experiences that meet community needs. Service-learning offers students the opportunity to learn outside the classroom, explore the richness and diversity of their community, and examine social justice issues while applying classroom theory in a community setting.

The Center for Service-Learning provides resources, including training and program support, to students, faculty, and community partner organizations.

Western offers many courses that include service-learning; look for the SL designation on Classfinder or contact the Center to learn more.

### Field Experience Programs

Western Washington University recognizes that work experience outside of the classroom can enhance student learning by providing opportunities to put theory into practice. To this

## ALL-UNIVERSITY PROGRAMS

end, the University works closely with a wide variety of businesses and community and governmental agencies which offer internship opportunities, and many academic departments require or make academic credit available for field experience.

Students interested in exploring field experience opportunities should contact the Career Services Center, Old Main 280.

### Pre-Professional Pathways

Admission to graduate professional schools requires a baccalaureate degree and is competitive. Early consultation with the relevant advisor and excellent academic work are crucial to success.

### Chiropractic

Currently, there are 15 programs and institutions accredited by the Council on Chiropractic Education. Students commonly prepare for entry to a Doctor of Chiropractic (DC) program by obtaining a baccalaureate degree along with completing requirements as specified by targeted programs: prerequisite course work and obtaining observational, volunteer, and/or clinical experience under the direction of a chiropractor.

Students may complete undergraduate degrees in any area; no specific major is preferred or encouraged. Admission requirements are highly variable with many schools allowing for completion of set quarter hours accumulated across life and physical sciences disciplines rather than mandating specific courses to complete. Common requirements include courses and related lab work in biology, inorganic chemistry, organic chemistry, and physics, along with a breath of Humanities and Social Science (GUR) studies.

Information about the field can be obtained from the American Chiropractic Association website, [www.acatoday.org](http://www.acatoday.org). Most programs base their requirements for admission on prerequisites established by the Council on Chiropractic Education (CCE). Access to accredited schools and their admission requirements are featured on its website at [cce-usa.org](http://cce-usa.org). Students should review programs they wish to qualify for early in their academic planning in order to guide their development of a plan of study, including selection of GUR coursework.

Students are encouraged to seek advisement from the pre-healthcare professions advisors. Early and ongoing consultation with the advisors is strongly recommended to discuss matters such as selection of a major, course sequences, shadowing,

graduation requirements, application procedures, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205 (continues into second year)
- ENG 101
- MATH (level depends upon chosen major)
- General University Requirements (to include Psychology, Communication)

Pre-chiropractic students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu), [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); Old Main 280, 360-650-4240; [www.wwu.edu/careers/peacehealth.shtml](http://www.wwu.edu/careers/peacehealth.shtml).

### Dentistry

Admission to dental schools is highly selective and includes evaluation of GPA, letters of recommendation, scores from the Dental Admission Test (DAT), and an interview, as well as demonstrated dental knowledge, manual dexterity, and community service.

Course requirements for entry into a dental program afford each applicant an opportunity to pursue any area of interest as a major field of study and still acquire the background necessary to prepare for the DAT and to pursue a dental curriculum. The DAT must be taken at least one full year prior to admission to dental school; normally it is taken in the junior year.

Early consultation with the pre-healthcare professions advisors is strongly recommended. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences community service, shadowing, and graduation requirements at Western, as well as dental school entrance requirements, application procedures, the DAT, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into second year)
- ENG 101



- MATH (pre-calculus or calculus, depending upon major)
- General University Requirements

Pre-dentistry students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu), [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); Old Main 280, 360-650-4240; [www.wwu.edu/careers/prehealth\\_dentistry.shtml](http://www.wwu.edu/careers/prehealth_dentistry.shtml).

### Law

Law schools require a baccalaureate degree. They do not require a specific undergraduate major, but do seek students who are broadly educated. Admission is selective based primarily on GPA, LSAT scores and letters of recommendation. Law schools want students who excel in oral and written communication; understand economic, political and social institutions; and have well-developed objective and critical thinking skills. Western's General University Requirements are intended to aid students in honing these skills.

The Law School Admission Test (LSAT), normally required of applicants to American and Canadian law schools, is offered on the Western campus several times each year. Applications and test schedule information may be obtained from the Testing Center and the Department of Political Science. Students should plan to take the LSAT late in their junior year or early in their senior year.

Students are encouraged to explore academic and extracurricular opportunities provided by Fairhaven College's Center for Law, Diversity and Justice (CLDJ). All WWU students are eligible to apply to join the Law, Diversity and Justice minor, and Fairhaven students are eligible to pursue a Law, Diversity and Justice concentration (major). For more information on the Center for Law, Diversity and Justice and the LDJ curriculum, contact Prof. Julie A. Helling, Fairhaven College of Interdisciplinary Studies.

Advisors: Dr. Paul Chen, Department of Political Science, Arntzen Hall 436, 360-650-4876, [Paul.Chen@wwu.edu](mailto:Paul.Chen@wwu.edu); Julie A. Helling, Fairhaven College, FA 311, 360-650-4907, [Julie.Helling@wwu.edu](mailto:Julie.Helling@wwu.edu).

### Medicine

The faculties of the School of Medicine at the University of Washington and other medical and

osteopathic schools in the U.S. believe that the appropriate level of scholarly achievement and preparation for medicine can best be developed in a liberal arts program with the emphasis on a discipline selected by the student.

In recognition of the diverse opportunities afforded the graduate in medicine, specified entrance requirements are purposely kept to a minimum. This enables each student to pursue, as a major field of study, almost any area of interest — the arts, humanities, social sciences, biological or physical sciences — and still acquire the background necessary to prepare for the Medical College Admission Test (MCAT) and to pursue a medical curriculum. The MCAT must be taken at least one full year prior to admission to medical school; normally it is taken in the junior year.

Early consultation with the pre-healthcare professions advisors is strongly recommended. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences, community service, physician shadowing, and graduation requirements at Western, as well as medical school entrance requirements, application procedures, the MCAT, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into second year)
- ENG 101
- MATH (pre-calculus or calculus, depending upon major)
- PSY 101
- General University Requirements

Premed students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu), [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); Old Main 280, 360-650-4240; [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### Nursing

Many Western students enter nursing programs by transferring to a nursing program or by entering a nursing program after graduation. Registered Nurse (R.N.) credentials are obtained after successfully completing a state board examination following completion of a certified nursing program at the community college Associate of Science in Nursing (ASN), also known as an Associate Degree

## ALL-UNIVERSITY PROGRAMS

in Nursing (ADN), a four-year university (BSN) or direct-entry Masters of Science (MSN) program. (A 'direct entry masters' is a master's degree that accepts students who have a bachelor's degree, but do not have a RN credential. Some MSN programs, such as University of Washington's are only for students who already are RNs). To be eligible for a nursing education program, students must complete a specified set of prerequisites and obtain volunteer or paid health care experience. Students may work on completing the prerequisites at WWU and apply for entry into the ASN or BSN program, with or without a degree at WWU. Completion of a degree is required for the direct-entry MSN program. Western offers an RN-to-BSN program for nurses who have already obtained RN credentials, and subsequently wish to obtain a Bachelor's degree in nursing (BSN). Information on Western's RN-to-BSN program is available at the Woodring College of Education website: [wce.wvu.edu/bsn/rn-bsn-program](http://wce.wvu.edu/bsn/rn-bsn-program).

Information on nursing education programs can be obtained from: the Accreditation Commission for Education in Nursing, [www.acenursing.org](http://www.acenursing.org), the American Association of Colleges of Nursing, [www.aacn.nche.edu/students](http://www.aacn.nche.edu/students), and [www.allnursingschools.com](http://www.allnursingschools.com).

Pre-Nursing is not a major at WWU. Examples of Western majors that cover some or all of the prerequisites include: Biology-Anthropology, Biology, Community Health, and Kinesiology/Pre-Healthcare Professions.

Volunteer work: It is recommended that students obtain minimally 200 hours of volunteer or paid health care experience. It is also recommended that students consider obtaining the Certified Nursing Assistant license via a local technical or community college.

Courses which are common to many prerequisite requirements for nursing programs:

- BIOL 101 or 204, 205
- BIOL 245 or 345, 346
- BIOL 348, 349
- CHEM 121, 251
- ENG 101, 202
- PSY 101, 230
- HLED 350
- ANTH 201, 424
- Statistics

Advisors: Dr. George Kriz, Director of Advising for Pre-healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renee Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu); [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); OM 280, 360-650-4240; [www.wvu.edu/careers/prehealth.shtml](http://www.wvu.edu/careers/prehealth.shtml).

## Nutrition

The Commission on Accreditation for Dietetics Education (CADE) is the American Dietetic Association (ADA) accrediting agency for education programs preparing students for careers as registered dietitians or dietetic technicians, registered. Only graduates of CADE-accredited programs are eligible to take the exam to become a Registered Dietitian or Dietetic Technician, Registered. Individuals who only have degrees in nutrition, dietetics or other related areas from programs that are not CADE-accredited are not eligible to take the exam to become a Registered Dietitian (RD) or Dietetic Technician, Registered. If a person is not a RD, they are not eligible for many jobs in the nutrition field. WWU is not CADE-accredited. WWU students wishing to become nutritionist must continue their education at a CADE-accredited program at another school.

CADE accredited programs, and other information on becoming a RD can be obtained at: [www.eatright.org/students/education/accreditedprograms.aspx](http://www.eatright.org/students/education/accreditedprograms.aspx).

Courses which are common to many prerequisite requirements for nutrition programs:

- BIOL 204, 205, 245
- BIOL 348, 349
- CHEM 121, 122, 123, 251, 375
- PSY 101
- HLED 350

Advisors: Dr. Gordon Chalmers, ET 275, 360-650-3113, [Gordon.Chalmers@wwu.edu](mailto:Gordon.Chalmers@wwu.edu); Dr. Dave Suprak, CV 105, 360-650-2586, [Dave.Suprak@wwu.edu](mailto:Dave.Suprak@wwu.edu)

To schedule a meeting with an advisor contact: Health and Human Development General Office (BH 103, [Sherena.Gearity@wwu.edu](mailto:Sherena.Gearity@wwu.edu), 360-650-3505) and she will assign you to an advisor. Then you should contact your assigned advisor to schedule an appointment.

Pre-nutrition advising webpage: [www.wvu.edu/alliedhealth/Pre-Chiropractic.shtml](http://www.wvu.edu/alliedhealth/Pre-Chiropractic.shtml).

## Occupational Therapy

Students prepare for entry to a graduate program in occupational therapy by obtaining a baccalaureate degree, completing the prerequisite course work for entry into specific programs, and by obtaining a broad variety of volunteer clinical experience under the direction of an occupational therapist. Students may complete undergraduate degrees in any area. Most programs require

submission of scores for the Graduate Record Exam (GRE - general test only).

Specific information on each occupational therapy program can be obtained from the American Occupational Therapy Association at [www.aota.org/Educate/Schools.aspx](http://www.aota.org/Educate/Schools.aspx). Students are encouraged to review prerequisite courses early in their academic planning and to develop a plan of study within the first quarter of entry to Western.

Pre-Occupational Therapy is not a major at WWU. Examples of Western majors that cover some or all of the prerequisites include: Biology-Anthropology, Community Health and Kinesiology/Pre-Healthcare Professions.

Courses which are common prerequisites to many occupational therapy programs:

- PSY 101, 230, 250
- BIOL 204, 205
- BIOL 348, 349
- CHEM 121, 122
- PHYSICS 101
- MATH 240, KIN 307 or BIOL 340

Advisors: Dr. Gordon Chalmers, ET 275, 360-650-3113, [Gordon.Chalmers@wwu.edu](mailto:Gordon.Chalmers@wwu.edu); Dr. Dave Suprak, CV 105, 360-650-2586, [Dave.Suprak@wwu.edu](mailto:Dave.Suprak@wwu.edu)

To schedule a meeting with an advisor contact: Health and Human Development General Office (BH 103, [Sherena.Geariety@wwu.edu](mailto:Sherena.Geariety@wwu.edu), 360-650-3505) and she will assign you to an advisor. Then you should contact your assigned advisor to schedule an appointment.

Pre-occupational therapy advising webpage: [www.wwu.edu/alliedhealth/Pre-Occupational%20Therapy.shtml](http://www.wwu.edu/alliedhealth/Pre-Occupational%20Therapy.shtml).

### Optometry

Twenty-one accredited optometry programs in the U.S. offer the Doctor of Optometry (OD). Admission into an optometry program is highly selective and includes evaluation of GPA, letters of recommendation, scores from the Optometry Admission Test (OAT), an interview, and demonstrated exposure to the profession. Specific schools and their requirements may be accessed from the Association of Schools & Colleges of Optometry (ASCO), [www.opted.org](http://www.opted.org).

A strong and broad undergraduate academic background in Chemistry, Biology, Mathematics, Physics, English and Psychology is emphasized yet no specific major is preferred. Students may pursue a major of any area of interest while still acquiring the background necessary to prepare for

the Optometry Admission Test (OAT) and to pursue an optometry curriculum. The OAT must be taken at least one full year prior to admission to optometry school; normally it is taken in the junior year.

Early consultation with the pre-healthcare professions advisors is strongly recommended. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences, community service, shadowing, and graduation requirements at Western, as well as optometry school entrance requirements, application procedures, the OAT, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into the second year)
- ENG 101
- MATH 124
- PSY 101
- General University Requirements (including public speaking)

Pre-optometry students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu), [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); OM 280, 360-650-4240; [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### Pharmacy

Programs at Washington State University, University of Washington, and other institutions lead to a Doctor of Pharmacy degree. Western provides courses that prepare students for admission to these and other programs. Admission into a pharmacy program is highly selective and includes evaluation of GPA, letters of recommendation, scores from the Pharmacy College Admissions Test (PCAT) or Graduate Record Examination (GRE), and an interview.

Students can pursue almost any area of interest as a major field of study and still acquire the background necessary to prepare for the PCAT (or GRE) and pursue a pharmacy curriculum. The PCAT, required by about 2/3 of pharmacy schools, (or GRE) must be taken prior to admission to pharmacy school; normally it is taken in the junior year.

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Because admission requirements at pharmacy programs are highly variable, students are strongly encouraged to seek advisement from the pre-healthcare professions advisors. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences, GUR courses, community service, shadowing, and graduation requirements at Western, as well as pharmacy school entrance requirements, application procedures, the PCAT and GRE, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into the second year)
- ENG 101
- MATH 124
- PSY 101
- General University Requirements (including public speaking, microeconomics, and logic or ethics)

Pre-Pharmacy students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu), [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); OM 280, 360-650-4240; [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### Physical Therapy

Admission to a graduate program in physical therapy is highly selective. Students prepare for entry by obtaining a baccalaureate degree, completing the prerequisite course work for entry into each specific program, and by obtaining volunteer clinical experience. Students may complete undergraduate degrees in any area. Most physical therapy programs are three-year programs offered at the doctoral level.

Admission requirements for entry into a physical therapy program include the completion of a required prerequisite set of courses, three letters of recommendation and the completion of an internship under the direction of a physical therapist (200 to 500 hours). Most programs require submission of scores from the Graduate Record Exam (GRE — general test only) and some require a minimum score on the two sections of the GRE. The GRE should be taken in the fall quarter of the application year.

Specific information on each program can be obtained from the PT Education link on the American Physical Therapy Association home page at [www.apta.org](http://www.apta.org). Program prerequisites, statistics, and curriculums are presented by geographic location. Students are encouraged to review prerequisite courses early in their academic planning and to develop a plan of study within the first quarter of entry to Western.

Courses which are common to many prerequisite requirements for physical therapy programs:

- BIOL 204, 205
- BIOL 348, 349
- CHEM 121, 122, 123
- PHYS 114, 115, 116
- PSY 101, 230 or 250
- Statistics

Advisors: Dr. Gordon Chalmers, ET 275, 360-650-3113, [Gordon.Chalmers@wwu.edu](mailto:Gordon.Chalmers@wwu.edu); Dr. Dave Suprak, CV 105, 360-650-2586, [Dave.Suprak@wwu.edu](mailto:Dave.Suprak@wwu.edu)

To schedule a meeting with an advisor contact: Health and Human Development General Office (BH 103, [Sherena.Gearity@wwu.edu](mailto:Sherena.Gearity@wwu.edu), 360-650-3505) and she will assign you to an advisor. Then you should contact your assigned advisor to schedule an appointment.

Pre-physical therapy advising webpage: [www.wwu.edu/alliedhealth/Pre-Physical%20Therapy.shtml](http://www.wwu.edu/alliedhealth/Pre-Physical%20Therapy.shtml).

### Physician Assistant

Students prepare for entry to a physician assistant program by obtaining a baccalaureate degree, completing the prerequisite course work for entry into specific programs, and by obtaining a broad variety of volunteer clinical experience. Students may complete undergraduate degrees in any area.

Information about the field can be obtained from the American Academy of Physician Assistants website [www.aapa.org/](http://www.aapa.org/). Specific information on each physician assistant program can be obtained from listings of entry level PA programs at [www.arc-pa.org/acc\\_programs/](http://www.arc-pa.org/acc_programs/) and [www.paeonline.org/index.php?ht=d/ContentDir/pid/255](http://www.paeonline.org/index.php?ht=d/ContentDir/pid/255).

Courses which are common to many prerequisite requirements for physician assistant programs:

- BIOL 204, 205
- BIOL 245 or 345, 346
- BIOL 348, 349
- CHEM 121, 122, 123

- CHEM 251 or 351, 352, 353
- CHEM 375
- PSY 101, 230 and/or 250
- Statistics

Advisors: Dr. George Kriz, Director of Advising for Pre-healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renee Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu); [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); OM 280, 360-650-4240; [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### **Veterinary Medicine**

Washington State University and 29 other U.S. veterinary medical colleges offer the Doctor of Veterinary Medicine (DVM). Admission into a veterinary medicine program is highly selective and includes evaluation of GPA, Graduate Record Exam (GRE), extracurricular and community service, volunteer experience within the field, letters of recommendation and an interview. Western offers coursework that will satisfy the pre-requisites of most DVM programs.

Students can pursue almost any area of interest as a major field of study and still acquire the background necessary to prepare for the GRE and pursue a veterinary medicine curriculum. The GRE must be taken at least one full year prior to admission to veterinary medical school; normally it is taken in the junior year.

Because admission requirements at veterinary medical schools are highly variable students are strongly encouraged to seek advisement from the pre-healthcare professions advisors. Early and ongoing consultation with the advisors is strongly recommended to discuss matters such as selection of a major, course sequences, community service, shadowing, graduation requirements, application procedures, the GRE, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into second year)
- ENG 101
- MATH 124
- General University Requirements (Public speaking beneficial for approximately 1/2 of the Veterinary Medicine schools).

Pre-veterinary students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray and Anna Tognazzini, Graduate and Pre-Professional Programs Advisors, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu), [Anna.Tognazzini@wwu.edu](mailto:Anna.Tognazzini@wwu.edu); OM 280, 360-650-3268; [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### **Professional Transfer Programs**

Students who plan to complete a baccalaureate program at another institution should seek advice from that institution for curriculum planning, test requirements and information on application procedures.

The institution to which the student is transferring determines admission to the program and makes decisions regarding the transferability of credit.

Programs undergo constant revision. The student, therefore, must bear responsibility for continued contact with the transfer institution.

# Extended Education

## Dr. Earl Gibbons

Vice Provost, Extended Education

College Hall 131, 360-650-3308

[www.wvu.edu/ee/](http://www.wvu.edu/ee/)

## Extended Education

Extended Education (EE) supports and delivers Western programs to students and community members within and beyond the borders of Bellingham campus.

EE at Western had its beginnings in 1912 when the first home study courses were created for teachers. Fast forward to the 21st century where EE has expanded and diversified WWU offerings in Bellingham and throughout the Puget Sound region, emphasizing community college partnerships in Seattle, Everett, Port Angeles, Mount Vernon, Bremerton, and Poulsbo to deliver degree and learning options for all ages.

EE supports undergraduate, graduate, certificate/endorsement, and online programs. Individual distance learning courses are offered via Term-Based online and Self-Paced independent learning online for degree completion and professional development purposes. EE also facilitates Western's Summer Session.

EE connects diverse learners to the Western Experience by collaborating with colleges, departments and the community, linking university resources with educational needs and opportunities both on and off campus, including international education opportunities. EE reaches out to the public with academic workshops and summer programs for Youth, non-credit enrichment courses for lifelong learners, and professional development for those seeking career advancement. In addition, EE facilitates conferences for groups and organizations, both on and off campus.

All of Western's extension programs, courses, and degrees meet the same requirements and standards as set by the institution unless otherwise noted.

Most programs and courses offered through EE are self-sustaining (not funded by legislative appropriation). Tuition and fees are charged per credit at extension rates and are subject to change.

## Mission

Extended Education connects learners of all ages to the Western Experience. Extended Education

collaborates with colleges, departments, and the community, linking university resources with educational needs and opportunities both on and off campus.

## Vision Statement

Extended Education will share the Western Experience with students of all ages through learning opportunities across time and place by expanding partnerships – campus and beyond – to build a stronger Washington.

## Statement of Quality

Extended Education is committed to the same high standards of quality for which Western is well known. Programs and courses are designed and/or revised with the assistance of university faculty, aided by industry and community experts and are reviewed and approved by Western Washington University colleges, departments, and academic committees.

## Degree programs

### Lois Longwood, Director

360-650-6854

[www.wvu.edu/ee/main/locations.shtml](http://www.wvu.edu/ee/main/locations.shtml)

The following academic programs are offered through the College of Business and Economics, College of Humanities and Social Sciences, College of Science and Engineering, Huxley College of the Environment, Woodring College of Education, and the Graduate School. For program information, visit the appropriate website listed below.

Many of these programs are self-sustaining and are contingent upon sufficient enrollment and available University resources.

### College of Business and Economics

Business Administration, Managers and Professionals, MBA

Program website: [cbe.wvu.edu/mba/weekend-program](http://cbe.wvu.edu/mba/weekend-program)

Business Administration — General Concentration, BA (Management)

Program website: [cbe.wvu.edu/mgmt/general-poulsbo](http://cbe.wvu.edu/mgmt/general-poulsbo)

### College of Humanities and Social Sciences

Communication Sciences and Disorders Post-Baccalaureate Preparation Program

Program website: [chss.wwu.edu/csd/post-baccalaureate-program](http://chss.wwu.edu/csd/post-baccalaureate-program)

Multidisciplinary Studies, BA

Program website:  
[www.wwu.edu/ee/degrees/mds/index.shtml](http://www.wwu.edu/ee/degrees/mds/index.shtml)

### College of Science and Engineering

Computer and Information Systems Security, BS

Program website:  
[www.wwu.edu/ee/degrees/ciss/index.shtml](http://www.wwu.edu/ee/degrees/ciss/index.shtml)

Vehicle Design Post-Baccalaureate Certificate Program

Program website: [www.wwu.edu/vri/vehicle-design-post-bac.shtml](http://www.wwu.edu/vri/vehicle-design-post-bac.shtml)

### Huxley College of the Environment

Huxley on the Peninsulas

Program website: [huxley.wwu.edu/hcop/huxley-college-peninsulas](http://huxley.wwu.edu/hcop/huxley-college-peninsulas)

Environmental Science Extension Major, BS

Program website:  
[huxley.wwu.edu/hcop/environmental-science-hcop](http://huxley.wwu.edu/hcop/environmental-science-hcop)

Environmental Policy (Extension), BA

Program website:  
[huxley.wwu.edu/hcop/environmental-policy-hcop](http://huxley.wwu.edu/hcop/environmental-policy-hcop)

### Woodring College of Education

TESOL Certificate

Program website: [wce.wwu.edu/tesol/teaching-english-speakers-other-languages](http://wce.wwu.edu/tesol/teaching-english-speakers-other-languages)

ESOL Endorsement for Teachers

Program website:  
[www.wwu.edu/ee/degrees/esol/index.shtml](http://www.wwu.edu/ee/degrees/esol/index.shtml)

Educational Administration, Thesis, MEd  
Initial Administrator Certificate (Superintendent)

Program website: [wce.wwu.edu/edad/initial-superintendent-certification](http://wce.wwu.edu/edad/initial-superintendent-certification)

Residency Administrator Certificate (Principal)

Program website: [wce.wwu.edu/edad/educational-administration](http://wce.wwu.edu/edad/educational-administration)

Human Services, BA

Program website: [wce.wwu.edu/hs/distance-learning](http://wce.wwu.edu/hs/distance-learning)

Nursing (RN-to-BSN), BSN

Program website: [wce.wwu.edu/bsn/rn-bsn-program](http://wce.wwu.edu/bsn/rn-bsn-program)

Rehabilitation Counseling, Non-Thesis, MA

Program website: [wce.wwu.edu/rc/rehabilitation-counseling](http://wce.wwu.edu/rc/rehabilitation-counseling)

Teacher Education Outreach Programs

Program website: [wce.wwu.edu/teop/teacher-education-outreach-programs](http://wce.wwu.edu/teop/teacher-education-outreach-programs)

- Bachelor of Arts in Education (BAE) with a residency teacher certificate and an elementary education endorsement.
- Bachelor of Arts in Education (BAE) with a residency teacher certificate and dual endorsements in special and elementary education.
- Post-Baccalaureate residency teacher certificate with elementary education endorsement.
- Western's outreach program also offers endorsements in Elementary Education and Special Education for teachers who already hold a Washington State Teaching Certificate.
- Masters in Teaching (MIT), secondary education.
- Alternate Route programs
  - Customized alternate route programs are developed by Woodring College of Education in conjunction with school districts.

### Degree Programs Site List

[www.wwu.edu/ee/main/locations.shtml](http://www.wwu.edu/ee/main/locations.shtml)

- Bellingham (Main Campus):  
[www.wwu.edu/ee/main/bel-index.shtml](http://www.wwu.edu/ee/main/bel-index.shtml)
- Western on the Peninsulas:  
[www.wwu.edu/ee/landing/westernotp.shtml](http://www.wwu.edu/ee/landing/westernotp.shtml)
  - Bremerton:  
[www.wwu.edu/ee/main/bre-index.shtml](http://www.wwu.edu/ee/main/bre-index.shtml)
  - Port Angeles:  
[www.wwu.edu/ee/main/port-index.shtml](http://www.wwu.edu/ee/main/port-index.shtml)
  - Poulsbo:  
[www.wwu.edu/ee/poulsbo/](http://www.wwu.edu/ee/poulsbo/)
- Anacortes: [www.wwu.edu/ee/main/ana-index.shtml](http://www.wwu.edu/ee/main/ana-index.shtml)
- Everett: [www.wwu.edu/ee/main/eve-index.shtml](http://www.wwu.edu/ee/main/eve-index.shtml)

## EXTENDED EDUCATION

- Mount Vernon: [www.wvu.edu/ee/main/mt-vernon-index.shtml](http://www.wvu.edu/ee/main/mt-vernon-index.shtml)
- Seattle: [www.wvu.edu/ee/main/sea-index.shtml](http://www.wvu.edu/ee/main/sea-index.shtml)
- Tacoma: [www.wvu.edu/ee/main/tac-index.shtml](http://www.wvu.edu/ee/main/tac-index.shtml)
- Online: [www.wvu.edu/ee/westernonline/](http://www.wvu.edu/ee/westernonline/)

### Western on the Peninsulas

#### Candice Merrill, Director

360-394-2761

[www.wvu.edu/peninsulas](http://www.wvu.edu/peninsulas)

For over 20 years, Western has offered degree, professional, and certificate programs to students on the Kitsap and Olympic Peninsulas. As part of Western's commitment to serve the citizens of Washington, Western collaborated with Olympic College in 2013 to establish the Western Washington University Center at Olympic College, Poulsbo to better serve the community and businesses on the Peninsulas. Western on the Peninsulas strives to meet the growing demand of the community by offering degree programs from the College of Business and Economics, College of Humanities and Social Sciences, College of Science and Engineering, Huxley College of the Environment, and Woodring College of Education.

- Bremerton: [www.wvu.edu/ee/main/bre-index.shtml](http://www.wvu.edu/ee/main/bre-index.shtml)
- Port Angeles: [www.wvu.edu/ee/main/port-index.shtml](http://www.wvu.edu/ee/main/port-index.shtml)
- Poulsbo: [www.wvu.edu/ee/poulsbo/](http://www.wvu.edu/ee/poulsbo/)

### Western Online

#### Andrew Blick

360-650-2841

[WesternOnline@wvu.edu](mailto:WesternOnline@wvu.edu)

[www.wvu.edu/ee/westernonline/](http://www.wvu.edu/ee/westernonline/)

Departments across campus, in conjunction with EE, offer alternatives for completing university course work, including General University Requirements (GURs), upper-division writing proficiency requirements, electives, and courses required for Western majors and minors. Many of the courses offered through WesternOnline are open to anyone - both Western students and the public may enroll. Degree seeking students should verify requirements for degree/major with the academic department.

#### Western Online:

[www.wvu.edu/ee/westernonline/](http://www.wvu.edu/ee/westernonline/)

Andrew Blick, 360-650-2841,

[WesternOnline@wvu.edu](mailto:WesternOnline@wvu.edu)

### Online Term-Based

Online Term-Based courses begin and end with Western's quarterly schedule. Students may access the course 24 hours, seven days a week and work at the pace designated by the instructor. Current course offerings, registration information, and tuition details for Term-Based online courses can be found on the WesternOnline website at: [www.wvu.edu/ee/westernonline/](http://www.wvu.edu/ee/westernonline/).

### Self-Paced (formerly Independent Learning or Correspondence)

Kris Lewis, 360-650-3650, [iLearn@wvu.edu](mailto:iLearn@wvu.edu)

Self-Paced courses enable students to start anytime while following a course guide developed for the Self-Paced student. Students will have six months from the month of registration to complete their course. Registration information and current offerings can be found on the WesternOnline website at: [www.wvu.edu/ee/westernonline/](http://www.wvu.edu/ee/westernonline/).

### Online Degree and Certificate Programs

Human Services, BA

Program website: [wce.wvu.edu/hs/human-services](http://wce.wvu.edu/hs/human-services)

TESOL Certificate

Program website: [wce.wvu.edu/tesol/teaching-english-speakers-other-languages](http://wce.wvu.edu/tesol/teaching-english-speakers-other-languages)

### Language and Culture Programs

#### Dr. Frederick O'Connor, Director

360-650-3755

[www.wvu.edu/ee/lcp](http://www.wvu.edu/ee/lcp)

### Asia University America Program

#### Dr. Dean Hagin, Director

360-650-3922

[www.wvu.edu/auap](http://www.wvu.edu/auap)

WWU-Asia University America Program (AUAP) is an English language and cultural orientation program that has been developed cooperatively with Asia University (Tokyo, Japan), Central Washington University, and Eastern Washington University. During this five-month study-abroad program, students from Asia University attend AUAP courses at Western in English as a Second Language, American Cultural Studies, and Global Issues. AUAP students earn credit from Asia University and are not matriculated to Western. Approximately 130 AUAP students come to Western each year, with sessions running from September to mid-February, and late February through late July.

AUAP offers a number of opportunities to the Western community:



- Language and cultural exchange opportunities to Western students and community residents through the Campus Friends, Community Friends, and Classroom Volunteer programs; these programs provide intercultural contacts both within and beyond the classroom.
- Informational programming about Japanese culture in various Western classes and residence-hall groups; in addition, AUAP staff facilitates exchanges with AUAP and regular Western classes.
- Interaction with Japanese students on a daily basis with Western students who share residence halls and dining rooms with AUAP students.
- Cultural-exchange services to the community, including programming in Bellingham public schools which introduces local elementary school children to Japanese language and culture and, most importantly, to international friendship.
- Participation by Western faculty and students in research opportunities through AUAP; faculty and students from the communications, foreign languages, psychology, business, and anthropology departments have conducted studies based on linguistic or attitudinal surveys.
- Paid leadership positions for Western students, such as international peer advisors and curriculum assistants; these positions give valuable experience in an intercultural context, provide opportunities to develop international friendships, and assist in financing their education.

**Intensive English Program**  
**Dr. Frederick O'Connor, Director**  
 360-650-3755  
[www.wvu.edu/ee/lcp/iep/](http://www.wvu.edu/ee/lcp/iep/)

The Intensive English Program (IEP) provides a variety of English language courses designed to prepare international students for academic study at American colleges and universities. IEP classes, which are mostly noncredit, focus on preparing students for these academic experiences, as well as helping them to adapt socially and culturally to living in the U.S. The program emphasizes creating opportunities for Western students and IEP students to interact, both in the classroom and through informal conversational situations.

IEP, in cooperation with the Office of Admissions, manages the conditional admissions process, in which international students, as admitted undergraduates, enroll in a combination of regular academic classes and advanced English-language classes. Conditional admission functions as a bridging process from ESL to university coursework

and is designed to better prepare international students for study in degree programs.

Other academic collaboration areas of the University include the following:

- IEP works with Western faculty to facilitate intercultural experiences for current Western students in communications, management, psychology, anthropology, education, and world languages courses by arranging joint classes, projects and other interactions with IEP students.
- IEP is closely linked to Western's TESOL certificate program by providing practicum experience, tutoring experience, and employment opportunities for TESOL students.
- IEP provides opportunities for Western faculty who have professional relationships in other countries to bring students, individually or in groups, to campus for language and content-area study or for eventual matriculation into Western.

**Bridge Program**  
**Maggie Burnett**  
 360-650-4073  
[www.wvu.edu/ee/lcp/bridge/](http://www.wvu.edu/ee/lcp/bridge/)

Western Washington University's Bridge Program is an optional program designed to help international students make a successful transition into Western classes.

First-year or transfer international students experience a customized quarter of classes that provides extra support from Western faculty as students take credit-bearing coursework. Bridge students also benefit from activities and curriculum that explores language, culture, and transitioning into an American university.

### Academy for Lifelong Learning

**Lois Longwood, Director**  
 360-650-6854  
[www.wvu.edu/ee/all/](http://www.wvu.edu/ee/all/)

Academy for Lifelong Learning (A.L.L.) offers a diverse spectrum of academic and cultural courses and excursions to adults, regardless of age or educational background. Offerings are noncredit and are taught by Western faculty, faculty emeritus, and experts in various fields and professions.

## EXTENDED EDUCATION

### Professional Studies and Continuing Education

**Lois Longwood, Director**

360-650-6854

[www.wvu.edu/ee/profdev/index.shtml](http://www.wvu.edu/ee/profdev/index.shtml)

Professional enrichment opportunities are available for individuals interested in broadening their professional skills, exploring new careers, or seeking additional endorsements or courses for career enhancement. Offerings include:

- **Certificate Programs** offer in-depth study in professional and specialized areas resulting in a certificate of completion when the program is successfully completed. Courses are designed to meet the busy schedules of adults. Contact: 360-650-3717.
- **Credit Option/Clock Hour partnerships** with professional organizations provide Western credit or clock hours to partnership offerings. Course work must meet University academic standards. Contact: 360-650-7780.

### Summer Programs

**Marlene Harlan, Director**

360-650-7221

**Summer Session** is a self-support quarter that offers over 500 academic credit and professional development courses. In addition to the traditional 6- and 9-week courses, offerings include short term, online, field courses, and faculty-led global learning programs. 360-650-3308, [www.wvu.edu/ee/summersession/](http://www.wvu.edu/ee/summersession/)

**Conference Services** helps in facilitating and planning professional conferences and workshops for groups and organizations year-round. Services include fiscal management, registration, marketing, web development, hospitality, printing, media equipment, and general support. 360-650-6821, [www.wvu.edu/ee/conference/](http://www.wvu.edu/ee/conference/)

**Viking Launch** offers incoming freshmen a strong, focused start up to college life at Western. Students will arrive on campus seven days early for an intensive week of study and preparation for a successful Western Experience. 360-650-3308, [www.wvu.edu/ee/youth/v\\_launch/](http://www.wvu.edu/ee/youth/v_launch/)

**Youth Programs** are designed for the academic pursuits and leadership development of youth in elementary, middle and high school. Participants live on campus or commute while they explore the arts, humanities, technology, science, outdoor

challenges and more. 360-650-6820, [www.wvu.edu/ee/youth/](http://www.wvu.edu/ee/youth/)

- **College Quest** (Grades 10-12) [www.wvu.edu/ee/youth/collegequest/index.shtml](http://www.wvu.edu/ee/youth/collegequest/index.shtml)  
Through this summer college prep program, students complete a real college course, gain valuable "success in college" information, and form extraordinary social connections that come with life in a residence hall. College Quest bridges the gap between high school and college and put students on a path to personal, educational, and career success.
- **Early Release Program** (Grades K-5)  
In this program, students spend an afternoon discovering and exploring exciting topics in science and arts during the academic year.
- **Girls in Engineering, Math and Science (GEMS)** (Various Ages and Grades)  
Western's GEMS provides an empowering forum for girls to learn and excel in the fields of Engineering, Math and Science and explore STEM innovation and careers with faculty, professionals, college students, and peers that share similar interests.  
  
Programs include GEMS Academy, GEMS Fair, and GEMS Night Out.
- **Global Connections** (Grades 4-6) [www.wvu.edu/ee/youth/global-connections/index.shtml](http://www.wvu.edu/ee/youth/global-connections/index.shtml)  
This summer program provides opportunities for youth from diverse cultures to build connections through academic enrichment and recreational activities emphasizing the development of cross-cultural relationships.
- **Grandparents U** (Youth, Ages 7-14, and Grandparents) [www.wvu.edu/ee/youth/grandparents/index.shtml](http://www.wvu.edu/ee/youth/grandparents/index.shtml)  
This intergenerational summer program is designed for grandparents and grandchildren. Participants choose from exciting classes taught by Western faculty. Each class provides opportunities to learn, have fun, and create lifelong memories.
- **International Youth Programs** (Grades 4-11)  
WVU Youth Programs hosts several groups of students from South Korea in the summer. Cheongju Youth participates in Odyssey of Science and Arts, JLS Academy participates in Global Connections, and

Korea High School Program participates in a customized STEM program. In addition to their content classes, ESL/American Culture classes are customized for each group.

- **Kids Night Out @ Western (KNOW)** (Grades 1-5)  
Youth experience a combination of academic and recreational enrichment on a Friday evening during the academic year. Students explore hands-on science activities in the Science Resource Center in SMATE and end the evening at the swimming pool in the Wade King Student Recreation Center.
- **Odyssey of Science and Arts** (Grades 4-7)  
[www.wvu.edu/ee/youth/odyssey/index.shtml](http://www.wvu.edu/ee/youth/odyssey/index.shtml)  
Western faculty, instructors, and staff create summer academic enrichment offerings for students that offer a quality and uniqueness that is hard to find elsewhere. The resulting signature courses spotlight areas of expertise and take advantage of Western's campus. Students attend classes, participate in field trips, work on projects in specialized labs, and engage in a wide range of other hands-on activities that make learning interactive and fun.
- **Western Kids Camp** (Grades K-6)  
Youth participate in morning academic enrichment activities and programmed afternoon recreation based on a weekly theme. Theme-inspired summer sessions include nature, science, culture study, the arts, and more. Students utilize college classrooms, labs, equipment, playing fields, and the award-winning Wade King Student Recreation Center (WKSRC). Campers are divided into groups according to age and participate in age appropriate activities.

Western Kids Camp is offered in partnership with EE and Campus Recreation.

- **Youth Programs in Anacortes** (Various Ages and Grades)  
WWU Youth Programs offers programming in Anacortes in partnership with the Anacortes School District and Western's Shannon Point Marine Center.  
  
Programs include Early Release Enrichment, Ocean STEM After School, Odyssey of Science and Arts, Grandparents U.
- **Youth Programs in Poulsbo** (Various Ages and Grades)  
In addition to programming in Bellingham and Anacortes, Western's signature Youth

Programs, Western Kids Camp, and Odyssey of Science and Arts are available in Poulsbo, Washington, through a partnership with Olympic College, SEA Discovery Center, and Poulsbo Parks and Recreation.

**Partnership Youth Programs** are developed by Western colleges and departments. These programs are offered in conjunction with EE. 360-650-6820, [www.wvu.edu/ee/youth/](http://www.wvu.edu/ee/youth/)

- **WWU Lakewood Jr. Sailing Camp** (Ages 11-18)  
This summer sailing program for youth is the oldest (since 1981) and most comprehensive sailing program in Whatcom County. Offered by Western's Viking Union/Lakewood Water Sport Facility, young sailors and windsurfers master skills in a natural environment at Lakewood Water Sport Facility, which is one of the premier facilities in the Northwest and located on the South shore of Lake Whatcom.
- **Suzuki Violin** (Ages 4-7)  
Offered through the College of Fine and Performing Arts (CFPA), Suzuki Violin provides a nurturing environment that fosters your child's love of music.
- **Summer Youth Theatre Institute (SYTI)** (Grades K-12)  
SYTI courses are taught in professional theatre spaces, allowing access to the costume shop and performance venues on Western's campus. Each institute culminates in an original showcase produced on the stage of Old Main Theater.
- **Summerwinds** (Grades 6-12)  
Presented by Western's College of Fine and Performing Arts (CFPA), Summerwinds is a chamber music day camp for woodwind (flute, oboe, clarinet, and bassoon) players who have had at least two years of experience on their instruments.

**Facing the Future**

[www.facingthefuture.org](http://www.facingthefuture.org)  
Phone: 844-284-2151

Facing the Future is an international leader whose mission is to create curriculum for educators that equip and motivate students to develop critical thinking skills, build global awareness, and engage in positive solutions for a sustainable future.

# EXTENDED EDUCATION

## Testing Center

### **Maggie Barklind, Director**

Student, Course Services, and Testing  
Phone: 360-650-2117

### **Kathy Murray, Manager**

[www.wvu.edu/assess](http://www.wvu.edu/assess)  
Phone: 360-650-3080

The Testing Center is a National College Testing Association (NCTA) Certified Test Center and adheres to the standards and guidelines of NCTA and the Consortium of College Testing Centers (CCTC). The mission of the Testing Center is to provide high quality and secure testing services for students, graduates, professionals and those from the local and regional community. Other functions of the testing center include:

- Administers and proctors make-up exams and exams for independent study courses.
- Provides distance learning exams for both Western students and students attending other universities.
- Provides information on national testing programs.
- Maintains records of entrance test scores.

# University Personnel

## Board of Trustees

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### Vice Provost for Research and Graduate Dean

## UNIVERSITY PERSONNEL

Kathleen Kitto, BS, MSME

Vice Provost for Undergraduate Education

Steven L. VanderStaay, BA, MA, PhD

Director of Academic Budgeting

Ichi Pencil, BA, CPA, MBA

Director of Institutional Research

Ming Zhang, MS, PhD

Administrative Assistant to the Provost

Melinda Assink, BA

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Education, Woodring College of

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Fairhaven College of Interdisciplinary Studies

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Dean, Brent Mallinckrodt, BA, MA, PhD

Huxley College of the Environment

Dean, Steven Hollenhorst, BA, MA, PhD

Science and Engineering, College of

Dean, Catherine Clark, BSc Hons, PhD

Vice Provost for Research and Graduate Dean

Kathleen Kitto, BS, MSME

Libraries

Dean of Libraries, Mark I. Greenberg, BA, MA, PhD, MLS

Shannon Point Marine Center

Director, Erika McPhee-Shaw, BA, PhD

Institute for Global Engagement

Director, Vicki Hamblin, BS, MA, PhD

### **University Relations and Community Development**

Director for Government Relations

Becca Kenna-Schenk, BA, MPA

Administrative Assistant

Lorie McNeill

Office of University Communications and Marketing

Director, Paul Cocke, BA

Front Door to Discovery

Director, Dan Purdy, BA, MBA

Small Business Development Center

Director, CJ Seitz, BS, MBA

Washington Campus Connect

Director, Jennifer Hine, BA, MBA

Web Communication Technologies

Director, Max Bronsema, BA, MEd

## **Business and Financial Affairs**

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Brian Sullivan, BS

Assistant to the Vice President

Nancy L. Phillips

Budget Office

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Facilities Development & Capital Budget

Director, Rick Benner, BA / AIA

Environmental Health and Safety

Director, Sue Sullivan, BA, MBA

Human Resources

Assistant Vice President for HR, Chyerl Wolfe-Lee, BA, PHR, CLRP

Facilities Management

Director, John Furman, PE, CFM

Public Safety

Director, Darin Rasmussen, BS

## **Enrollment and Student Services**

Administrative Assistant to the Vice President

Lynne Walker, BS

Assistant Vice President for Enrollment and Student Services/Special Assistant to the President for Diversity

Kunle Ojikutu, BS, MPA, PhD

Assistant Vice President for Enrollment and Student Services/Admissions and Financial Aid

Clara Capron, BS, MEd

Budget and Administration/Enrollment and Student Services

Director, Linda P. Beckman, BA, MBA

Dean of Students

Ted Pratt, BA, MEd

Special Assistant to the Vice President for Enrollment and Student Services

Sara Wilson, BA, MS

Academic and Career Development Services

Director, Tina Loudon, BEd, MEd

Athletics

Director, Steve Card, BA

Bookstore

General Manager, Peg Godwin, BA

## UNIVERSITY PERSONNEL

### Campus Recreation Services

Director, Adam Leonard, BS, MPE

### Counseling Center

Director, Shari Robinson, BA, MS, PhD

### disAbility Resources for Students

Director, David Brunnemer, BA, MSpEd

### New Student Services/Family Outreach

Program Director, Ronna Biggs, BA, MS

### Prevention and Wellness

Director, Elva Munro, BA, MS

### Registrar

David Brunnemer, BA, MSpEd

### Student Health Center

Director, Emily Gibson, AB, MD

### Student Outreach Services

Director and Associate Dean, Renee Collins, BA, MEd, EdD

### University Residences

Director, Leonard Jones, BS, MS

### University Dining Services

Director, Stephen Wadsworth

### Associate Dean of Student Engagement/Director of Viking Union Facilities

Eric Alexander, BS, MS

## University Advancement

### Assistant Vice President for Alumni, Annual Giving and Advancement Communications

Deborah DeWees, BA

### Associate Vice President for Development and Leadership Giving

Tim Szymanowski, BA

### Chief Operating Officer

Mark Brovak, BA

### Senior Director of Special Events and Director of Development for the Libraries and Athletics

Mark Bagley, BA, MA

### Senior Director of Development for University Strategy Initiatives

Manca Valum, BA

### Special Assistant to the Vice President for University Advancement

Kathleen Culver, BA

### Administrative Assistant to the Vice President for University Advancement

Lori Samborski, CMT

## Presidents of the Faculty Senate

2016-17

Kristen Larson

2015-16

Molly Ware

2014-15

Spencer Anthony-Cahill

2013-14

Johann Neem



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2008-09	Matthew Liao-Troth
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1999-00	Mark Bussell
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1997-98	James W. Hearne
1996-97	George T. Cvetkovich
1995-96	Kenneth Hoover
1994-95	Kris A. Bulcroft
1993-94	Kathleen M. Knutzen
1991-93	John Mason (2 terms)
1990-91	Richard W. Thompson
1987-89	George E. Mariz (2 terms)
1986-87	Harry Jackson
1985-86	Robert M. Thorndike

### University Presidents Emeritus

KAREN W. MORSE

President Emeritus. BS, Denison University; MA, PhD, University of Michigan.

PAUL J. OLSCAMP

President Emeritus. BA, MA, University of Western Ontario; PhD, University of Rochester.

CHARLES J. FLORA

President Emeritus. BS, Purdue University; MEd, EdD, University of Florida.

KENNETH P. MORTIMER

President Emeritus. AB, MBA, University of Pennsylvania; PhD, University of California-Berkeley.

### Dean Emeritus

LAWRENCE M. MARRS

Dean Emeritus of Woodring College of Education, BS, MS, University of Utah; PhD, University of Texas, Austin.

ROGER GILMAN

Dean Emeritus of Fairhaven College of Interdisciplinary Studies, BA, Fairhaven College/Western Washington University; MA, PhD, University of Chicago.

DENNIS R. MURPHY

Dean Emeritus of College of Business and Economics, BA, MA, Western Washington University; PhD, Indiana University (Bloomington).

## UNIVERSITY PERSONNEL

### ARLAN NORMAN

Dean Emeritus of College of Sciences and Technology, BS, University of North Dakota, PhD, Indiana University.

### BRADLEY SMITH

Dean Emeritus of Huxley College of the Environment, BA, MA, Western Michigan University; PhD, University of Michigan.

## Distinguished Service Professor of Western Washington University

### PETER J. ELICH

Distinguished Service Professor Emeritus of the University. BA, University of Washington; MEd, Western Washington College of Education; PhD, University of Oregon.

### PAUL J. OLSCAMP

Distinguished Service Professor Emeritus of the University. BA, MA, University of Western Ontario; PhD, University of Rochester.

### JOSEPH E. TRIMBLE

Distinguished Service Professor of the University. BA, Waynesburg College; MA, University of New Hampshire; PhD, University of Oklahoma

## Retired Faculty - Emeritus

### A

#### MARIAN ALEXANDER

Associate Professor Emeritus of Western Libraries. BA, Occidental College; MLS, University of California, Los Angeles.

#### DONALD ALPER

Professor Emeritus of Political Science. BA, MA, California State University – Long Beach; PhD, University of British Columbia.

#### EVELYN AMES

Professor Emeritus of Physical Education, Health and Recreation. BS, University of Nevada; MS, Washington State University; PhD, University of Maryland.

#### DARREL AMUNDSEN

Professor Emeritus of Modern and Classical Languages. BA, Western Washington State College; MA, University of Washington; PhD, University of British Columbia.

#### KATHRYN L. ANDERSON

Professor Emeritus of Fairhaven. BA, MA, University of Iowa; PhD, University of Washington.

#### SHARRON ANTHOLT

Professor Emeritus of Art. BFA, California State University; MFA, San Francisco Art Institute.

#### M. CHAPPELLE ARNETT

Professor Emeritus of Physical Education. BS, Centenary College; MS, Purdue University; EdD, University of Missouri.

#### DAVID AUER

Senior Instructor Emeritus of Decision Sciences. BA, University of Washington, BA, MA, MS, Western Washington University.

### B

#### RANDALL S. BABCOCK

Professor Emeritus of Geology. AB, Dartmouth College; MS, PhD, University of Washington.

#### LOUIS BARRETT

Professor Emeritus of Physics and Astronomy. PhD, University of Washington.

#### BONNIE J. BARTHOLD

Professor Emeritus of English. BA, University of Arizona; MA, Ohio State University; PhD, University of Arizona.

#### MYRL E. BECK, JR.

Professor Emeritus of Geology. BA, MS, Stanford University; PhD, University of California – Riverside.

#### EDMOND BEREAL

Professor Emeritus of Art. BA, Chouinard Art Institute.

#### RICHARD BERG

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#### JOSEPH D. BETTIS

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#### LESLIE BLACKWELL

Professor Emeritus of Education. BA, Washington State University; MEd, EdD, University of Washington.

#### HENRICH BROCKHAUS

Associate Professor Emeritus of Modern and Classical Languages, BA, MA, University of British Columbia, PhD, University of Washington.

#### EDWIN H. BROWN

Professor Emeritus of Geology. AB, Dartmouth College; MSC, University of Otago, New Zealand; PhD, University of California – Berkeley.

#### HERBERT A. BROWN

Professor Emeritus of Biology. BA, University of California – Los Angeles; PhD, University of California – Riverside.

WILLIAM C. BUDD  
Professor Emeritus of Psychology. BA, Hamline University; BS, MA, PhD, University of Minnesota.  
WILLIAM A. BULTMANN  
Professor Emeritus of History. AB, PhD, University of California – Los Angeles.  
MICHAEL J. BURNETT  
Associate Professor Emeritus of Fairhaven College. BA, University of Illinois; MA, PhD, Claremont Graduate School.

**C**

DONALD J. CALL  
Associate Professor Emeritus of Sociology. BA, MA, PhD, University of Oregon.  
STEPHEN CARMEAN  
Professor Emeritus of Psychology. BA, MA, PhD, University of Illinois.  
NITA CLOTHIER  
Assistant Professor Emeritus of Liberal Studies. BA, MEd, Western Washington State College.  
ROY A. CLUMPNER  
Professor Emeritus of Physical Education, Health and Recreation. BS, University of Wisconsin – Lacrosse; MA, California State University – San Jose; PhD, University of Alberta.  
LESLIE CONTON  
Professor Emeritus of Fairhaven College. BA, Oberlin College; MA, PhD, University of Oregon.  
KEITH J. CRASWELL  
Associate Professor Emeritus of Mathematics. BS, MS, PhD, University of Washington.  
LOWELL T. CROW  
Professor Emeritus of Psychology. BS, MA, University of South Carolina; PhD, University of Illinois.  
DAVID CURLEY  
Professor Emeritus of Liberal Studies. BA, MA, PhD, University of Chicago.  
GEORGE T. CVETKOVICH  
Professor Emeritus of Psychology. BA, Youngstown State University; MA, Akron State University; PhD, Kansas State University.

**D**

SANDRA DAFFRON  
Associate Professor Emeritus of Human Services & Rehabilitation. BS, Eastern Illinois University; MS, Southern Illinois University; EdD, Northern Illinois University.  
CAROLYN DALE  
Associate Professor Emeritus of Journalism. BA, MA, University of Washington.  
CECILIA DANYSK  
Associate Professor Emeritus of History. BA, Concordia University; MA, PhD, McGill University.  
HELEN F. DARROW  
Professor Emeritus of Educational Curriculum and Instruction. BS, Wilson Teachers College; MA, Northwestern University; MA, University of California – Los Angeles; EdD, Teachers College, Columbia University.

MELVIN G. DAVIDSON  
Professor Emeritus of Physics and Astronomy. AB, Whitman College; PhD, Rensselaer Polytechnic Institute.  
STEVEN H. DILLMAN  
Professor Emeritus of Engineering Technology. BS, Rice University; PhD, University of Washington.  
WILLIAM J. DITTRICH  
Associate Professor Emeritus of Physics and Astronomy. BS, MS, University of Washington.  
MARJORIE J. DONKER  
Professor Emeritus of English. BA, Western Washington State College; MA, PhD, University of Washington.  
THOMAS E. DOWNING  
Associate Professor Emeritus of Philosophy. BA, Wayne State University; PhD, Stanford University.  
JAMES E. DUEMMEL  
Associate Professor Emeritus of Mathematics. BA, MA, PhD, Ohio State University.

**E**

DONALD J. EASTERBROOK  
Professor Emeritus of Geology. BS, MS, PhD, University of Washington.  
MARIE EATON  
Professor Emeritus of Fairhaven College. BA, Pomona College; MEd, PhD, University of Washington.  
ANNA L. EBLEN  
Professor Emeritus of Communication. BA, Duke University; MA, University of West Florida; PhD, University of Oregon.  
DONALD K. EKLUND  
Associate Professor Emeritus of History. BA, University of New Mexico; MA, Colorado State University; PhD, University of Colorado.  
PETER ELICH  
Professor Emeritus of Psychology. BA, University of Washington. MEd, Western Washington University. PhD, University of Oregon.  
ROBERT EMBREY  
Professor Emeritus of Art. BA, MEd, MFA, University of Oregon.  
DAVID ENGBRETSON  
Professor Emeritus of Geology. AA, AS, Olympic Community College; BA, Western Washington University; MS, PhD, Stanford University.  
HOWARD M. EVANS  
Associate Professor Emeritus of Educational Curriculum and Instruction. BS, Eastern Oregon College; MA, EdD, University of Illinois.  
**F**  
CONSTANCE P. FAULKNER  
Professor Emeritus of Fairhaven College. BS, PhD, University of Utah.  
RICHARD FEINBERG  
Associate Professor Emeritus of Physics and Astronomy. BS, State University of New York; MS, PhD, Stanford University.

## UNIVERSITY PERSONNEL

### FLORA FENNIMORE

Professor Emeritus of Educational Foundations. BS, Mt. Angel Women's College; MA, EdD, Washington State University.

### RICHARD F. FERINGER

Professor Emeritus of Educational Administration and Foundations. BS, University of Minnesota; EdD, University of California – Los Angeles.

### DAVID FEWINGS

Associate Professor Emeritus of Finance and Marketing. BS, University of Manitoba; MBA, PhD, University of Toronto.

### MAURICE H. FOISY

Associate Professor Emeritus of Political Science. BA, Gonzaga University; MA, Georgetown University; PhD, University of Oregon.

### BÉLA FOLTIN, JR

Professor Emeritus of Western Libraries. BM, MM, MLS, University of Illinois.

### RICHARD W. FONDA

Professor Emeritus of Biology. BA, Duke University; MS, PhD, University of Illinois.

### PAUL M. FORD

Professor Emeritus of Educational Administration and Foundations. AB, Dartmouth College; MEd, EdD, Harvard University.

### DEBRA FORGAYS

Professor Emeritus of Psychology. BA, MEd, PhD, University of Vermont.

### RICHARD J. FOWLER

Professor Emeritus of Technology. BA, MS, Washington State University; EdD, Texas A&M University.

### SHEILA L. FOX

Professor Emeritus of Special Education. Associate Dean, Woodring College of Education. BA, Western Washington State College; MEd, PhD, University of Washington.

### RICHARD L. FRANCIS

Professor Emeritus of English. AB, Kenyon College; MA, Duke University; PhD, Yale University.

## G

### GEORGE A. GERHOLD

Professor Emeritus of Chemistry. BS, University of Illinois; PhD, University of Washington.

### ROGER GERMAIN

Associate Professor Emeritus of Theatre Arts. BA, Western Washington State College.

### ROGER GILMAN

Dean and Professor Emeritus of Fairhaven. BA, Fairhaven College, Western Washington University; MA, PhD, University of Chicago.

### MADGE G. GLEESON

Professor Emeritus of Art. BA, MAT, Brown University; MFA, Washington State University.

### THOMAS K. GRADY

Associate Professor Emeritus of Engineering Technology. BA, BS, MSEE, University of Colorado.

### NEIL R. GRAY

Associate Professor Emeritus of Mathematics. BA,

San Francisco State College; MA, PhD, University of Washington.

### FREDERICK GROTE

Associate Professor Emeritus of Psychology. AB, Dartmouth College; PhD, University of North Carolina – Chapel Hill.

### BURTON L. GROVER

Associate Professor Emeritus of Educational Administration and Foundations. BS, MA, PhD, University of Minnesota.

## H

### DANIEL HAGEN

Professor Emeritus of Economics. BA, PhD, University of California – Berkeley.

### JULIA HANSEN

Professor Emeritus of Economics. BA, University of Vermont; MA, PhD, University of California – Berkeley.

### K. PETER HARDER

Professor Emeritus of Economics. BA, University of Puget Sound; MA, PhD, University of Nebraska.

### JOHN T. (JACK) HARDY

Professor Emeritus of Environmental Sciences. BA, University of California – Santa Barbara; MS, Oregon State University; PhD, University of Washington.

### F. DAVID HARRIS

Professor Emeritus of Engineering Technology. BS, Newark College of Engineering; MAT, Rhode Island College; MS, Rensselaer Polytechnic Institute.

### LYLE HARRIS

Professor Emeritus of Journalism. BA, MA, University of Montana; PhD, University of Missouri.

### SUSANNA A. HAYES

Associate Professor Emeritus of Psychology. BA, Loyola University; MEd, University of Arizona; PhD, University of Michigan.

### LEONARD M. HELFGOTT

Professor Emeritus of History. BA, MA, PhD, University of Maryland.

### MICHAEL L. HENNIGER

Professor Emeritus of Elementary Education. Associate Dean, Woodring College of Education. BA, MA, Whitman College; PhD, University of Texas.

### FRANCIS H. HILDEBRAND

Professor Emeritus of Mathematics. BA, Kent State University, MS, University of Illinois; PhD, Michigan State University.

### CLAUDE E. HILL

Professor Emeritus of Technology. BA, MEd, University of Washington.

### FORD D. HILL

Associate Professor Emeritus of Music. AB, Wisconsin State University; MMus, Indiana University.

### JAMES J. HITCHMAN

Professor Emeritus of History. BA, Willamette University; MA, PhD, University of California – Berkeley.

**KAREN HOELSCHER**

Professor Emeritus of Elementary Education. BS, Bemidji State University; MS, Mankato State University; EdD, Harvard University Graduate School of Education.

**KENNETH HOWELL**

Professor Emeritus of Special Education. BA, MA, Arizona State University; PhD, University of Oregon.

**I****JAMES INVERARITY**

Professor Emeritus of Sociology. BA, University of Michigan - Ann Arbor; PhD, Stanford University.

**J****DANA JACK**

Professor Emeritus of Fairhaven College. BA, Mount Holyoke College; MSW, University of Washington – Seattle; PhD, Harvard University.

**RAND JACK**

Professor Emeritus of Fairhaven College. BA, Princeton University; LLB, Yale University Law School.

**CAROL JANSON**

Professor Emeritus of Art. BA, BFA, MA, PhD, University of Minnesota.

**R. ALLEN JENSEN**

Associate Professor Emeritus of Art. BA, University of Washington; MA, Washington State University.

**ROBERT I. JEWET**

Professor Emeritus of Mathematics. BS, California Institute of Technology; MS, PhD, University of Oregon.

**JERRY JOHNSON**

Professor Emeritus of Mathematics. BA, Augsburg College; MS, California Institute of Technology; MA, University of California, Los Angeles; PhD, University of Washington.

**THOMAS A. JOHNSTON**

Professor Emeritus of Art. BA, San Diego State College; MFA, University of California – Santa Barbara.

**ANTHONY A. JONGEJAN**

Associate Professor Emeritus of Instructional Technology. BA, MS, Western Washington University; MS, PhD, University of Oregon.

**DEBRA JUSAK**

Associate Professor Emeritus of Computer Science. BA, State University of New York – Potsdam, MS, University of Connecticut; PhD, University of California – Irvine.

**K****KENNETH S. KELEMAN**

Professor Emeritus of Management. BA, MA, San Diego State University; PhD, University of Utah.

**ROBERT H. KELLER**

Professor Emeritus of Fairhaven. AB, University of Puget Sound; BD, MA, PhD, University of Chicago.

**ROBERT HYUNG-CHAN KIM**

Professor Emeritus of Educational Foundations. BA, Hanguk University of Foreign Studies; BA, MA, EdD, George Peabody College for Teachers.

**LINDA KIMBALL**

Professor Emeritus of Anthropology. BS, MA, PhD, Ohio State University.

**SUSAN KINCAID**

Assistant Professor Emeritus of Human Services and Rehabilitation. BA, MEd, Western Washington University; PhD, Walden University.

**DONALD M. KING**

Associate Professor Emeritus of Chemistry. BS, Washington State University; PhD, California Institute of Technology.

**MARVIN L. KLEIN**

Professor Emeritus of Educational Administration. BS, MS, Southern Illinois University; PhD, University of Wisconsin.

**RONALD A. KLEINKNECHT**

Professor Emeritus of Psychology. BA, MS, PhD, Washington State University.

**KATHLEEN KNUTZEN**

Professor Emeritus of Physical Education, Health and Recreation. BEd, MEd, Western Washington University; PhD, University of Oregon.

**HUBERTUS E. KOHN**

Professor Emeritus of Biology. PhD, University of Innsbruck, Austria.

**MILTON KRIEGER**

Professor Emeritus of Liberal Studies. BA, Reed College; PhD, University of Toronto.

**GEORGE KRIZ**

Professor Emeritus of Chemistry. BS, University of California, Berkeley, PHD, Indiana University.

**SUSANNE KROGH**

Professor Emeritus of Elementary Education. BA, Florida State University; MEd, University of Maryland; PhD, University of Oregon.

**L****GEORGE S. LAMB**

Professor Emeritus of Educational Curriculum and Instruction. BA, Macalester College; MA, University of Washington; PhD, University of Minnesota.

**GARY M. LAMPMAN**

Professor Emeritus of Chemistry. BS, University of California, Los Angeles; PhD, University of Washington.

**DANIEL LARNER**

Professor Emeritus of Fairhaven College. AB, Harvard University; MS, PhD, University of Wisconsin – Madison.

**LAWRENCE L. LEE**

Professor Emeritus of English. BA, MA, PhD, University of Utah.

**ARLEEN LEWIS**

Professor Emeritus of Psychology. BA, Utah State University; PhD, University of Nebraska.

**L. LEWIS**

Professor Emeritus of Decision Sciences. BA,

## UNIVERSITY PERSONNEL

California State University - Long Beach; MS, San Jose State University; PhD, University of Louisville.

MERRILL E. LEWIS

Professor Emeritus of English. BA, MA, University of Oregon; PhD, University of Utah.

MATTHEW LIAO-TROTH

Professor Emeritus of Management. PhD, University of Arizona.

NORMAN F. LINDQUIST

Associate Professor Emeritus of Mathematics. BA, Linfield College; PhD, Oregon State University.

RICHARD H. LINDSAY

Professor Emeritus of Physics and Astronomy. BS, University of Portland; MS, Stanford University; PhD, Washington State University.

BILLIE J. LINDSEY

Associate Professor Emeritus of PEHR. BS, University of Texas; MA, EdD, University of Northern Colorado.

LOUIS G. LIPPMAN

Professor Emeritus of Psychology. BA, Stanford University; MA, PhD, Michigan State University.

MARCIA LIPPMAN

Associate Professor Emeritus of Psychology. BA, MA, Michigan State University; PhD, University of British Columbia.

WALTER J. LONNER

Professor Emeritus of Psychology. BA, MA, University of Montana; PhD, University of Minnesota.

### M

WILLIAM R. MACKAY

Associate Professor Emeritus of Psychology. BA, Brown University; MA, PhD, University of California – Berkeley.

ELIZABETH MADSEN

Associate Professor of Western Libraries. BA, Western Washington University; MA, University of Hawaii – Manoa; MA, Stanford University.

SUSAN K. MANCUSO

Professor of Student Affairs. BA, University of California; MA, EdD, University of Washington.

GEORGE MARIZ

Professor Emeritus of History. BA, MA, PhD, University of Missouri – Columbia.

LAWRENCE W. MARRS

Dean and Professor Emeritus of Education. BS, MS, University of Utah; PhD, University of Texas – Austin.

DAVID MARSH

Professor Emeritus of Art. BA, Central Washington College; MS, University of Oregon.

ROBERT MARSHALL

Professor Emeritus of Anthropology. BA, Youngstown State University; PhD, University of Pittsburgh.

LEAANN MARTIN

Professor Emeritus of Health and Human Development. Dean Emeritus of the College of Humanities and Social Sciences. BS, Missouri State

University; MS, University of Arizona – Tucson; PhD, University of Texas – Austin.

BARBARA MATHERS-SCHMIDT

Professor Emeritus of Communication Sciences and Disorders. BA, Lewis and Clark College; MS, Portland State University; PhD, University of Washington.

J. RICHARD MAYER

Professor Emeritus of Environmental Science. BS, Union College; MA, Columbia University; PhD, Yale University.

ROBERT A. McCRACKEN

Professor Emeritus of Educational Curriculum and Instruction. BA, MA, PhD, Syracuse University.

FLOYD J. McKAY

Professor Emeritus of Journalism. BA, Linfield College; MA, University of Maryland; PhD, University of Washington.

CAROL C. McRANDLE

Professor Emeritus of Communication Sciences and Disorders. BS, University of Minnesota; MS, PhD, Purdue University.

ROBERT D. MEADE

Professor Emeritus of Psychology. BA, Indiana University; MA, PhD, University of Pennsylvania.

ROBERT C. MEIER

Professor Emeritus of Finance, Marketing and Decision Sciences. BA, Indiana University; MA, PhD, University of Minnesota.

LARRY D. MENNINGA

Associate Professor Emeritus of Computer Science. BA, University of Iowa; MA, MS, PhD, University of Washington.

JOHN MILES

Professor Emeritus of Environmental Studies. BA, Dartmouth College; MA, University of Oregon; PhD, The Union Institute.

VLADIMIR MILICIC

Professor Emeritus of Foreign Languages and Literatures. Certificate of Baccalaureate, Gymnasium for Boys, Belgrade; MA, University of Chicago.

JOHN A. MILLER

Professor Emeritus of Chemistry. BS, Oregon State University; PhD, Iowa State University.

RALPH E. MINER

Professor Emeritus of Political Science. BA, San Jose State University; MA, PhD, University of Oregon.

KURT W. MOERSCHNER

Associate Professor Emeritus of Foreign Languages and Literatures. BComm, BA, Sir George Williams University; MA (Psychology), MA (German), PhD, University of Colorado.

ROBERT L. MONAHAN

Professor Emeritus of Geography and Environmental Social Sciences. BA, University of Washington; MA, University of Michigan; PhD, McGill University.

PHILLIP T. MONTAGUE

Professor Emeritus of Philosophy. BS, Loyola University; PhD, Stanford University.

**DEBNATH MOOKHERJEE**

Professor Emeritus of Environmental Studies. BS, MS, University of Calcutta; PhD, University of Florida.

**THEODORE A. MORK**

Professor Emeritus of Educational Curriculum and Instruction. BA, MEd, Western Washington State College; PhD, Syracuse University.

**JACK MORRIS**

Associate Professor Emeritus of Music. BA, Brigham Young University; MM, Indiana University

**JOSEPH G. MORSE**

Professor Emeritus of Chemistry. BS, South Dakota State College; MS, PhD, University of Michigan.

**KAREN MORSE**

Professor Emeritus of Chemistry. BA, Denison University; MS, PhD, University of Michigan – Flint.

**SANDRA MOTTNER**

Professor Emeritus of Finance and Marketing. BA, Mary Baldwin College; MBA, College of William and Mary; PhD, Old Dominion University.

**GEORGE M. MULDROW**

Professor Emeritus of English. BA, MA, University of Missouri; PhD, Stanford University.

**N****GEORGE "PINKY" NELSON**

Professor Emeritus of Physics and Astronomy. Director, Science, Math and Technology Education. BS, Harvey Mudd College; MS, PhD, University of Washington.

**EDWARD F. NEUZIL**

Professor Emeritus of Chemistry. BS, North Dakota State College; MS, Purdue University; PhD, University of Washington.

**ALDEN NICKELSON**

Professor Emeritus of Educational Curriculum and Instruction. BS, MA, PhD, University of Washington.

**ARLAN NORMAN**

Professor Emeritus of Chemistry and Dean Emeritus of College of Sciences and Technology. BS, University of North Dakota; PhD, Indiana University.

**O****THOMAS OLNEY**

Associate Professor Emeritus of Finance and Marketing. AB, Cornell University; MBA, MPhil, PhD, Columbia University.

**MAUREEN E. O'REILLY**

Professor Emeritus of Theatre Arts. BA, Whitman College; MA, University of Washington; MFA, University of Cincinnati.

**MARTIN OSBORNE**

Professor Emeritus of Computer Science. BA, Hamilton College; MA, University of Oregon; PhD, Oregon State University.

**JOANN OTTO**

Professor Emeritus of Biology. AB, AM, Mount Holyoke College; PhD, University of California – Irvine.

**P****JAL S. PARAKH**

Professor Emeritus of Biology. BA, Osmania University; MS, University of Florida; PhD, Cornell University.

**DOUGLAS PARK**

Professor Emeritus of English. AB, Hamilton College; PhD, Cornell University.

**DIANE C. PARKER**

Professor Emeritus. BA, University of California, Berkeley; MLS, University of Washington.

**INGEBORG L.E. PAULUS**

Associate Professor Emeritus of Sociology. BA, MA, University of British Columbia; PhD, University of London, England.

**DONALD L. PAVIA**

Professor Emeritus of Chemistry. AB, Reed College; MS, PhD, Yale University.

**RODNEY J. PAYTON**

Professor Emeritus of Liberal Studies. BA, MA, Washington State University; PhD, University of Chicago.

**LOIS E. PETERSEN**

Associate Professor Emeritus of Management. BA, Wartburg College; EdM, Oregon State University; EdD, University of North Dakota.

**TIM PILGRIM**

Associate Professor Emeritus of Journalism. BA, Western Montana College; MA, University of Montana; MA, PhD, University of Washington.

**ROBERT H. PINNEY**

Associate Professor Emeritus of Secondary Education. BA, University of Washington; EdD, Stanford University.

**E. LEROY PLUMLEE**

Professor Emeritus of Management. BBA, Texas Tech University; MS, Northern Illinois University; PhD, Texas Tech University.

**SAM R. PORTER**

Professor Emeritus of Technology. BA, Iowa State Teachers College; MA, Teachers College, Columbia University; EdD, University of Missouri.

**MERLE M. PRIM**

Professor Emeritus of Psychology. BA, University of Washington; MS, San Diego State College; PhD, Washington State University.

**MARY ANN PULTZ**

Associate Professor Emeritus of Biology. BA, PhD, Indiana University.

**JOHN PURDY**

Professor Emeritus of English. BA, Western Oregon University; MA, University of Idaho; PhD, Arizona State University.

**RICHARD L. PURTILL**

Professor Emeritus of Philosophy. BA, MA, PhD, University of Chicago.

**R****ROBERT A. RAUDEBAUGH**

Professor Emeritus of Engineering Technology. BS, MA, Northern Arizona University; EdD, Arizona State University.

## UNIVERSITY PERSONNEL

JOHN R. REAY

Professor Emeritus of Mathematics. BA, Pacific Lutheran University; MS, University of Idaho; PhD, University of Washington.

MARY ANN REYNOLDS

Professor Emeritus of Accounting. BS, Brigham Young University; PhD, University of Utah.

JOHN RICHARDSON

Professor Emeritus of Sociology. BA, University of the Pacific; PhD, University of California – Davis.

LARRY S. RICHARDSON

Associate Professor Emeritus of Communication. BA, Western Washington State College; MEd, Central Washington State College; MA, PhD, Washington State University.

RON RIGGINS

Professor Emeritus of Fairhaven College. BA, La Verne College; MS, ReD, Indiana University.

HARRY RITTER

Professor Emeritus of History. BA, University of Arizona; MA, PhD, University of Virginia.

LYNN A. ROBBINS

Professor Emeritus of Environmental Studies. BA, University of Utah; MA, PhD, University of Oregon.

WALTER L. ROBINSON

Professor Emeritus of Foreign Languages and Literatures. BA, MA, PhD, University of Texas.

ROSALIE ROMANO

Associate Professor Emeritus of Secondary Education. BA, PhD, University of Washington.

AJIT S. RUPAAL

Professor Emeritus of Physics and Astronomy. BS, MS, Panjab University; PhD, University of British Columbia.

SALVATORE S. RUSSO

Professor Emeritus of Chemistry. BA, Wesleyan University; PhD, Northwestern University.

CARLA RUTSCHMAN

Professor Emeritus of Music. BA, University of Northern Colorado; MM, Arizona State University; PhD, University of Washington.

EDWARD R. RUTSCHMAN

Professor Emeritus of Music. BMus, University of Northern Colorado; MMus, Arizona State University; PhD, University of Washington.

DAVID RYSTROM

Associate Professor Emeritus of Finance and Marketing. BS, University of California – Los Angeles; MS, California State University – Northridge; PhD, University of Oregon.

### S

WILLIAM M. SAILORS

Associate Professor Emeritus of Accounting. BA, University of Illinois; MS, MBA, University of Southern California.

RONALD N. SAVEY

Associate Professor Emeritus of Accounting. BA, Western State College of Colorado; MBA, University of Denver.

ROBERT L. SCANDRETT

Professor Emeritus of Music. BA, Seattle Pacific College; MA, PhD, University of Washington.

DAVID E. SCHNEIDER

Professor Emeritus of Biology. BS, Bates College; PhD, Duke University.

HENRY G. SCHWARZ

Professor Emeritus of History/East Asian Studies. BA, MA, PhD, University of Wisconsin.

SY SCHWARTZ

Associate Professor Emeritus of Educational Administration and Foundations. BS, MS, EdD, Wayne State University.

DONALD J. SCHWEMMIN

Associate Professor Emeritus of Biology. BS, MS, PhD, University of Michigan.

MICHAEL R. SEAL

Professor Emeritus of Engineering. BEd, University of British Columbia; MEd, Western Washington State College; DEd, Texas A&M University.

MICHAEL T. SEILO

Professor Emeritus of Communication Sciences and Disorders. BS, Northern Michigan University; MA, University of Arizona; PhD, Ohio University.

STEPHEN SENGE

Professor Emeritus of Accounting. BA, Western State University; MA, PhD, Kent State University.

CLYDE M. SENGER

Professor Emeritus of Biology. BA, Reed College; MS, Purdue University; PhD, Utah State University.

ALBERT C. SHAW

Professor Emeritus of Music. BMusEd, Wheaton College; MMusEd, Drake University; DMusEd, Indiana University.

SHELBY SHEPPARD

Associate Professor Emeritus of Secondary Education. BGS, MA, PhD, Simon Fraser University.

KNUTE SKINNER

Professor Emeritus of English. BA, University of Northern Colorado; MA, Middlebury College; PhD, University of Iowa.

ALAN G. SLEEMAN

Associate Professor of Economics. BSc, London School of Economics; PhD, Simon Fraser University.

KRISTINE SLENTZ

Professor of Emeritus of Special Education. BA, State University of New York; MA, PhD, University of Oregon.

LINDA E. SMEINS

Professor Emeritus of Art. BFA, University of Denver; MA, California State University; PhD, University of British Columbia.

ALDEN C. SMITH

Associate Professor Emeritus of Communication. BS, Florida Southern; MS, Syracuse University; PhD, University of Illinois.

BRADLEY F. SMITH

Dean and Professor Emeritus of Huxley College of the Environment. BA, MA, Western Michigan University; PhD, University of Michigan.



**WILLIAM E. SMITH**

Professor Emeritus of English. BA, MA, Appalachian State University; PhD, University of Utah.

**R.E. "TED" STANNARD JR.**

Associate Professor Emeritus of Journalism. BA, University of Washington; MA, Cornell University.

**JAMES STEWART**

Professor Emeritus of Physics and Astronomy. BA, BS, University of North Dakota; MS, PhD, University of New Mexico.

**WILLIAM STOEVER**

Professor Emeritus of Liberal Studies. BA, Pomona College; MDiv, Yale Divinity School; MPhil, PhD, Yale University.

**DAVID W. SUE**

Professor Emeritus of Psychology. BS, University of Oregon; MS, PhD, Washington State University.

**WALTER SUESS**

Associate Professor Emeritus of Modern and Classical Languages. BA, Ruhr – Universitat; MA (English), MA (German), California State University – San Francisco; PhD, University of California – Davis.

**STEPHEN SULKIN**

Professor Emeritus of Biology. AB, Miami University; MS, PhD, Duke University.

**CHARLES SYLVESTER**

Professor Emeritus of Health and Human Development. BS, MA, University of Maryland; PhD, University of Oregon.

**KENNETH M. SYMES**

Professor Emeritus of English. BS, MS, Utah State University; PhD, University of New Mexico.

**T****JAMES L. TALBOT**

Professor Emeritus of Geology. BA, University of Cambridge; MA, University of California – Berkeley; PhD, University of Adelaide.

**DAVID E. TEMPLETON**

Professor Emeritus of Art. BFA, MA, University of Illinois; PhD, University of Minnesota.

**THOMAS A. TERICH**

Professor Emeritus of Environmental Studies. BA, MA, California State University, Los Angeles; PhD, Oregon State University.

**HUBERT N. THORESON**

Associate Professor Emeritus of Management. BS, Valley City State College; MEd, EdD, University of North Dakota.

**ROBERT M. THORNDIKE**

Professor Emeritus of Psychology. BA, Wesleyan University; PhD, University of Minnesota.

**KATHLEEN M. TOMLONOVIC**

Professor Emeritus of Modern and Classical Languages. BA, Marycrest College; MEd, Fordham University; MA, University of Iowa; PhD, University of Washington.

**MARIAN J. TONJES**

Professor Emeritus of Educational Curriculum and Instruction. BA, MA, University of New Mexico; EdD, University of Miami.

**JOHN TOWNER**

Professor Emeritus of Elementary Education. BS, MS, University of Wisconsin; PhD, University of Minnesota.

**LOUIS W. TRUSCHEL**

Associate Professor Emeritus of History. BA, Pacific Lutheran University; MA, PhD, Northwestern University.

**U****JOHN UNDERWOOD**

Professor Emeritus of Modern and Classical Languages. BA, Arizona State University; MS Georgetown University; PhD, University of California – Los Angeles.

**SAIM URAL**

Professor of Computer Science. BSc, MSc, PhD, Middle East Technical University – Turkey.

**ROBERTA. URSO**

Professor Emeritus of Art. BA, MA, University of Notre Dame.

**V****RICHARD VAWTER**

Associate Professor Emeritus of Physics and Astronomy. BS, Texas Technological University; MS, State University of Iowa; PhD, State University of New York.

**RALPH A. VERNACCHIA**

Professor Emeritus of Physical Education, Health, and Recreation. BE, Montclair State University; MS, Ohio University; PhD, University of Utah.

**RICHARD F. VOGEL**

Associate Professor Emeritus of Engineering Technology. BA, MAT, Washington State University; DEd, Texas A&M University.

**W****DAVID J. WALLACE**

Professor Emeritus of Music. BM, University of Michigan; MM, University of Wisconsin; DMA, University of Rochester.

**WILLIAM L. WALLACE**

Associate Professor Emeritus of Liberal Studies. BS, Appalachian State University; MA, PhD, Ohio University.

**HERBERT H. WEBBER**

Professor Emeritus of Geography and Environmental Social Sciences. BSc, PhD, University of British Columbia.

**RUDOLF WEISS**

Professor Emeritus of Modern and Classical Languages. BA, BEd, Western Washington State College; MA, PhD, University of Colorado.

**JOHN A. WEYH**

Professor Emeritus of Chemistry. BA, College of Great Falls; MS, PhD, Washington State University.

**DONALD W. WHISENHUNT**

Professor Emeritus of History. BA, McMurry College; MA, PhD, Texas Tech University.

## UNIVERSITY PERSONNEL

JOHN C. WHITMER

Professor Emeritus of Chemistry. BS, University of Rochester; MS, PhD, University of Michigan.

MARK WICHOLAS

Professor Emeritus of Chemistry. AB, Boston University; MS, Michigan State University; PhD, University of Illinois – Urbana.

DON C. WILLIAMS

Professor Emeritus of Biology. BA, Chico State College; MA, PhD, University of California, Davis.

TERRELL G. WILLIAMS

Professor Emeritus of Finance and Marketing. BS, MS, University of Wyoming; PhD, University of Arizona.

JOHN W. WOLL

Professor Emeritus of Mathematics. BS, Haverford College; PhD, Princeton University.

RAYMOND WOLPOW

Professor Emeritus of Secondary Education. BA, Wagner College; MA, Teachers College, Columbia University; PhD, Pennsylvania State University School of Education.

BRUCE D. WONDER

Associate Professor Emeritus of Management. BS, University of California, Berkeley; MS, San Francisco State University; PhD, University of Washington.

EVELYN C. WRIGHT

Associate Professor Emeritus of English. BS, Illinois

State University; MA, PhD, Northwestern University.

### Y

MING-HO YU

Professor Emeritus of Huxley College. BS, National Taiwan University; MS, PhD, Utah State University.

### Z

LINA ZEINE

Professor Emeritus of Communication Sciences and Disorders. BA, American University of Beirut – Lebanon; MA, University of Colorado; PhD, University of Kansas.

DAVID W. ZIEGLER

Associate Professor Emeritus of Political Science. BA, Oberlin College; MA, PhD, Harvard University.

EUGENE ZORO

Professor Emeritus of Music. BA, MM, University of Rochester.

LINDA A. ZURFLUH

Professor Emeritus of Educational Administration. BA, MA, Pacific Lutheran University; PhD, University of Washington.

## Faculty

### A

Abedi, Amir / Political Science

Abel, Troy / Environmental Studies

Acevedo-Gutierrez, Alejandro / Biology

Ahmed, Shameem / Computer Science

Airth, Paula / Design

Akinrinade, Babafemi / Fairhaven

Alfers, Sandra / Modern and Classical Languages

Aller, Warren / Educational Administration

Alqudah, Sura / Engineering and Design

Amiran, Edoh Y. / Mathematics

Amos, Colin / Geology

Amundson, Garth / Art and Art History

Anderson, Amy / Mathematics

Charles, Anderson / History

Anderson, Kristin L. / Sociology

Anderson, Roger A. / Biology

Antil, Laurence / Teacher Education Outreach Programs

Antholt, Charles / Economics

Anthony-Cahill, Spencer J. / Chemistry

Antos, John / Chemistry

Aranda, Blanca / Modern and Classical Languages

Armstrong, Jeanne / Library

Arthur-Cameselle, Jessyca / Health and Human Development

Askari, Kaveh / English

### B

Bach, Andrew J. / Environmental Studies

Bajuk, Mike / Theatre and Dance

Bajwa, Deepinder / Decision Sciences

Baker-Sennett, Jacquelyn / Health and Community Studies

Barnhart, Charles / Environmental Sciences

Bauman, Jenise / Environmental Sciences

Beasley, Bruce H. / English

Benedetti, Dina / Teacher Education Outreach Programs

Benson, Earl D. / Finance and Marketing

Benyi, Arpad / Mathematics

Berardi, Gigi / Environmental Studies

Berger, Robert / Chemistry

Berget, Andrew / Mathematics

Berzal de Dios, Javier / Art and Art History

Bianco, Christopher / Music

Bingham, Brian L. / Environmental Sciences

Biswas, Bidisha / Political Science

Bodensteiner, Leo R. / Environmental Sciences

Boland, Elizabeth / Health and Community Studies

Bone, Amber / Music

Borda, Emily / Chemistry

Bordoloi, Samit / Health and Community Studies

Boudreaux, Andrew / Physics and Astronomy

Bourne, Patricia / Music

Bover, David / Computer Science

Bowe, Brian / Journalism

Bower, John L. / Fairhaven

Boxberger, Daniel L. / Anthropology  
 Bradley, Karen / Sociology  
 Brand, Rob / Elementary Education  
 Brickham, Dana / Health and Community Studies  
 Briggs, Roger D. / Music  
 Brilla, Lorraine / Health and Human Development  
 Broadhagen, Marion / Biology  
 Brown, Andrew / Fairhaven  
 Brown, Nicole / English  
 Brown, Richard / Theatre and Dance  
 Bruce, Tim / Educational Administration  
 Bruna-Lewis, Sean / Anthropology  
 Bryan, April / Engineering and Design  
 Buckley, Patrick H. / Environmental Studies  
 Buddhadev, Harsh / Health and Human Development  
 Bulcroft, Richard / Sociology  
 Bunn, Andrew / Environmental Sciences  
 Bunn, Rebecca / Environmental Sciences  
 Burgess, Donald / Secondary Education  
 Burtz, Randall / Health and Human Development  
 Bussell, Mark E. / Chemistry  
 Byrne, Christina A. / Psychology

**C**

Calderon, Dolores / Fairhaven  
 Califf, Christopher / Decision Sciences  
 Camacho, Gustavo / Music  
 Camlin, Cynthia / Art and Art History  
 Campbell, Gerard / Management  
 Campbell, Sarah K. / Anthropology  
 Caplan-Auerbach, Jacqueline / Geology  
 Carnell, Cher / Theatre and Dance  
 Carney, Joanne / Instructional Technology and Elementary Education  
 Carroll, David / Elementary Education  
 Carroll, Jeff / Psychology  
 Cerretti, Josh / History  
 Chalice, Donald R. / Mathematics  
 Chalmers, Gordon / Health and Human Development  
 Chan, Victor / Mathematics  
 Chandran, Devyani / Health and Community Studies  
 Chawla, Tanveer / Engineering and Design  
 Chen, Hanmei / Accounting  
 Chen, Paul / Political Science  
 Chen, Xiao Feng / Decision Sciences  
 Chu, Marilyn / Elementary Education and Early Childhood Education  
 Ciao, Anna / Psychology  
 Clark, Douglas / Geology  
 Cohen, Jessica / Mathematics  
 Coleman, Brett / Health and Community Studies  
 Corbin, Hope / Health and Community Studies  
 Coskie, Tracy / Elementary Education  
 Costanzo, Susan / History  
 Coulter, Gail / Special Education  
 Covey, Kevin / Physics and Astronomy  
 Crutchley, Claire / Finance and Marketing  
 Cuban, Sondra / Health and Community Studies

Cueto, Desiree / Elementary Education  
 Cunningham, Mick / Sociology  
 Curgus, Branko / Mathematics  
 Currier, Deborah Greer / Theatre and Dance  
 Cushman, Jeremy / English  
 Czopp, Alexander / Psychology

**D**

Dade, Karen McLean / Woodring  
 Dagnon, Paula / Elementary Education  
 Dahl, Robyn / Geology  
 Dahlberg, Caroline / Biology  
 Daniels, Rita / Communication Studies  
 Darby, Kate / Environmental Studies  
 Darling, Rieko M. / Communication Sciences and Disorders  
 de Almeida, Cristina / Art and Art History  
 de la Paz, Oliver / English  
 DeBari, Susan / Geology  
 DeChaine, Eric / Biology  
 Deguchi, Masanori / Modern and Classical Languages  
 D'Eloia, Melissa / Health and Human Development  
 Denham, Kristin / English  
 Dennett, Nolan A. / Theatre and Dance  
 Destler, Katharine / Political Science  
 Devenport, Jennifer / Psychology  
 Deylami, Shirin / Political Science  
 Diehl, Peter D. / History  
 Dietrich, Dawn Y. / English  
 Dillard, Beth / Elementary Education  
 Dinnel, Dale L. / Psychology  
 Dolar, Burak / Accounting  
 Donnellan, Grant / Music  
 Donovan, Deborah / Biology  
 Donovan, Todd A. / Political Science  
 Dorsey-Palmateer, Reid / Economics  
 Dozier, Raine / Health and Community Studies  
 Drum, Dawna / Accounting  
 Dubenion-Smith, Shannon / Modern and Classical Languages  
 Dudenbostel, Ryan / Music  
 Dunn, Craig / Management  
 Dupont, Brandon / Economics  
 Durham, Yvonne / Economics  
 Du Rocher Schudlich, Tina / Psychology

**E**

Emory, Steven R. / Chemistry  
 Engelsing, Eduardo / Modern and Classical Languages  
 Estrada, Lawrence / Fairhaven  
 Eurich, Susan A. / History  
 Evans, David / Communication Sciences and Disorders  
 Evans, Kelli / Communication Sciences and Disorders

## UNIVERSITY PERSONNEL

### F

Fast, Margaret / Library  
Feinberg, Seth / Sociology  
Feingold, David / Music  
Feodorov, John / Fairhaven  
Fiero, Petra / Modern and Classical Languages  
Finlay, Janet / Psychology  
Fisher, Joshua / Anthropology  
Fitzpatrick, Timothy / Music  
Fizzano, Perry / Computer Science  
Flower, Aquila / Environmental Studies  
Folk, Holly / Liberal Studies  
Foreman, Brady / Geology  
Fouk, Emi / History  
Fraas, Michael / Communication Sciences and Disorders  
Freeman, Jeanne / Health and Human Development  
French, Kristen / Elementary Education  
Friday, Christopher C. / History  
Friesen, John / Music  
From, Milton / Physics and Astronomy

### G

García, Hugo / Modern and Classical Languages  
García, Joseph E. / Management  
Gardner, Richard J. / Mathematics  
Garfinkle, Steven J. / History  
Geary, Edward / Science Education and Geology  
Geisler, Marc S. / English  
Ghali, Moheb A. / Economics  
Giffen, Allison / English  
Gilbertson, David / Accounting  
Gilbertson, John / Chemistry  
Gill, David / Engineering and Design  
Gillham, Patrick / Sociology  
Gilliam, Jeffrey P. / Music  
Glimm, Tilmann / Mathematics  
Globerman, Steven / Economics  
Goebel, Bruce / English  
Gogröf-Voorhees, Andrea / Liberal Studies  
Goodnow, Jasmine / Health and Human Development  
Goodvin, Rebecca / Psychology  
Gosen, Joe / Journalism  
Gossett, J. Gabriel / Library  
Goto, Stanford / Educational Leadership  
Gour, Pierre / Art and Art History  
Graham, James / Psychology  
Green, Gaye Leigh / Art and Art History  
Green, Jennifer / TESOL  
Grimm, Jeffrey / Psychology  
Gruman, Diana / Psychology  
Guelker-Cone, Leslie / Music  
Guess, Carol / English  
Gupta, Dipak / Theatre and Dance  
Gynan, Shaw N. / Modern and Classical Languages

### H

Hamblin, Vicki L. / Modern and Classical Languages  
Hamilton, Bruce / Music  
Hammond, Joyce D. / Anthropology  
Hanania, Cecile / Modern and Classical Languages  
Hansen, Thor A. / Geology  
Hardesty, Jared / History  
Harris, John / Journalism  
Hart, Monica / Theatre and Dance  
Hartenstine, David / Mathematics  
Harwood, Angela M. / Secondary Education  
Haskell, Todd / Psychology  
Hatch, Marco / Environmental Sciences  
Haug, Peter / Decision Sciences  
Hayfron, John / Economics  
Hearne, James W. / Computer Science  
Helfield, James / Environmental Sciences  
Helling, Julie / Fairhaven  
Helms, Ronald / Sociology  
Hendryson, MaryAnn / Economics  
Henson, Steven / Economics  
Hilgendorf, Kari Jo / Health and Human Development  
Hodges, Hart L. / Economics  
Hoekstra, Nicole / Engineering and Design  
Hoffman, Joan M. / Modern and Classical Languages  
Homann, Peter S. / Environmental Sciences  
Hooper, David / Biology  
Horne, Cynthia / Political Science  
Housen, Bernard A. / Geology  
Howard-Snyder, Daniel / Philosophy  
Howard-Snyder, Frances / Philosophy  
Hsueh, Vicki / Political Science  
Hua, Stella / Decision Sciences  
Hudson, Hud / Philosophy  
Hughes, Eileen / Elementary Education and Early Childhood Education  
Hunter, Joseph / Educational Administration  
Hutchinson, Brian / Computer Science  
Hutchinson, Penny / Theatre and Dance  
Hutton, Marguerite R. / Accounting  
Hyatt, Keith / Special Education  
Hyman, Ira E. Jr. / Psychology

### J

Jagodzinski, Filip / Computer Science  
Jancic, Mitchell / Elementary Education  
Jantzen, Kelly J. / Psychology  
Jantzen, McNeel / Psychology  
Jaye, Cara / Art and Art History  
Jelaca Jovanovic, Milica / Music  
Jensen, Kirsten / Secondary Education  
Jiang, Xichen / Engineering and Design  
Jimerson, Randall C. / History  
Joffrion, Elizabeth / Library  
Johnson, Brad L. / Physics and Astronomy  
Johnson, James L. / Computer Science  
Johnson, Mildred / Mathematics

Johnson, Nancy J. / English  
 Johnson, Vernon D. / Political Science

**K**

Kahakauwila, Kristina / English  
 Kamel, Nabil / Environmental Studies  
 Kanov, Jason M. / Management  
 Karlberg, Michael / Communication Studies  
 Kasprisin, Lorraine / Educational Foundations and  
 Secondary Education  
 Keeler, Linda / Health and Human Development  
 Keller, Jennifer / Journalism  
 Kelley, Bridget / Special Education  
 Kelly, Ryan / Art and Art History  
 Keppie, Christina / Modern and Classical  
 Languages  
 Kerman, Monique / Art and Art History  
 Kim, Ilhyung / Decision Sciences  
 Kim, Jongwook / Management  
 King, Jeff / Psychology  
 Kingma, Theresa / Special Education and Compass  
 2 Campus  
 Klein, Andrew / Engineering and Design  
 Knabb, Shawn / Economics  
 Kodner, Robin / Biology  
 Koetje, Todd A. / Anthropology  
 Kong, Sophie / Finance and Marketing  
 Korsmo, John / Health and Community Studies  
 Kowalczyk, Tim / Chemistry  
 Krieg, John / Economics  
 Kuntz, Mark / Theatre and Dance  
 Kuntz, Pam / Theatre and Dance

**L**

LaBorde, Pamela L. / Finance and Marketing  
 Laffrado, Laura / English  
 Laird, Colleen / Modern and Classical Languages  
 Lambert, Michael Chuck / Special Education  
 Landis, Wayne G. / Environmental Sciences  
 Laninga, Tamara / Environmental Studies  
 Laroche, Lyubov / Teacher Education Outreach  
 Programs  
 Larsen, Donald / Educational Administration  
 Larson, Bruce E. / Secondary Education  
 Larson, Kristen / Physics and Astronomy  
 Larson, Nicole / Engineering and Design  
 Leaf, David S. / Biology  
 Lee, Ee Lin / Communication Studies  
 Lee, Suzanne / Biology  
 Lees, Anna / Elementary Education  
 Leger, Janelle / Advanced Materials Science and  
 Engineering and Design  
 Lehman, Barbara / Psychology  
 Lemm, Kristi / Psychology  
 Leonard, Beth / Theatre and Dance  
 Leonard, Kevin A. / History  
 Leonhardt, Eric C. / Engineering and Design  
 Li, Jiexun / Decision Sciences  
 Li, Ying / Health and Human Development  
 Lin, Ying / Engineering and Design

Linneman, Scott / Geology  
 Liu, Yudong / Computer Science  
 Liu, Zenghui / Accounting  
 Loar, Christopher / English  
 Lobeck, Anne / English  
 Lois, Jennifer / Sociology  
 Lopez, A. Ricardo / History  
 Lopez, Ana / Fairhaven  
 Lopresti, Robert / Library  
 Lortz, James E. / Theatre and Dance  
 Loucky, James / Anthropology  
 Love, Brooke / Environmental Sciences  
 Love, Edwin / Finance and Marketing  
 Lucchesi, Andrew / English  
 Lund, John / Engineering and Design  
 Lundeen, Kathleen / English  
 Luo, Baozhen / Sociology  
 Lyne, William / English  
 Lynn, Kimberly / Liberal Studies

**M**

Magee, Kelly / English  
 Mahoney, Kristin / English  
 Majors, Diane / TESOL and Elementary Education  
 Mana, Michael / Psychology  
 Manago, Adriana / Psychology  
 Markworth, Kimberly / Mathematics  
 Marrall, Rebecca / Library  
 Matthews, Geoffrey B. / Computer Science  
 Matthews, Robin A. / Environmental Sciences  
 Mayberry, Craig / Management  
 McClain, Lee / Decision Sciences  
 McClanahan, Lauren / Secondary Education  
 McCroom, Darren / Theatre and Dance  
 McDaniel, Sarah / Library  
 McDowall, Stephen / Mathematics  
 McEvoy, Glenn / Management  
 McLaughlin, John F. / Environmental Sciences  
 McLeod, Maria / Journalism  
 McLean Kesler, Christie / Teacher Education  
 Outreach Programs  
 McLean, Kate C. / Psychology  
 Medler, Michael / Environmental Studies  
 Meehan, J. Michael / Computer Science  
 Melious, Jean O. / Environmental Studies  
 Mendes, Sebastian / Art and Art History  
 Merrill, Richard / Theatre and Dance  
 Metzger, Mary J. / English  
 Mielke, Michelle / Health and Human Development  
 Miller, Barbara / Art and Art History  
 Miller, Brenda / English  
 Miller, Kate / American Cultural Studies and  
 Women, Gender, and Sexuality Studies  
 Miller, Matthew / Elementary Education  
 Miner, Benjamin / Biology  
 Miran, Jonathan / Liberal Studies  
 Misasi, John / Engineering and Design  
 Mitchell, Robert J. / Geology  
 Miyake, Mark / Fairhaven  
 Mogford, Liz / Sociology  
 Morris, Jason / Engineering and Design

## UNIVERSITY PERSONNEL

Morrow, Kacey / Art and Art History  
Morton, Todd / Engineering and Design  
Moscato, Derek / Journalism  
Mosher, M.J. / Anthropology  
Moulds, Cynthia / Women, Gender, and Sexuality Studies  
Mount, Jill / Nursing  
Moyer, Craig L. / Biology  
Mueller, Evan / Theatre and Dance  
Mulcahy, Sean / Geology  
Muniz, Marc / Chemistry  
Murphy, Amanda, / Chemistry  
Murphy, Dennis R. / Economics  
Murphy, Sean / Liberal Studies  
Myers, O. Eugene / Environmental Studies

### N

Neem, Johann / History  
Neff, Mark / Environmental Studies  
Nelson, David M. / Economics  
Nelson, Philip A. / Computer Science  
Newcomer, Jeffrey / Engineering and Design  
Nicholas, Trula / Health and Community Studies  
Nielsen, Carolyn / Journalism  
Noguchi, Kimihiro / Mathematics  
Nolet, Victor / Secondary Education  
Nyman, Adam / Mathematics

### O

Ohana, Chris / Elementary Education  
Oleen, Jenny / Library  
Olson, Michael / Library  
O Murchu, Niall / Fairhaven  
O'Neil, Gregory / Chemistry  
Oslapas, Arunas P. / Engineering and Design  
Ousselin, Edward / Modern and Classical Languages

### P

Paci-Green, Rebekah / Environmental Studies  
Paola, Suzanne L. / English  
Paredes Mendez, Maria F. / Modern and Classical Languages  
Parker, Jennifer / Special Education  
Parmett, Helen Morgan / Communication Studies  
Parris, Kristen D. / Political Science  
Partsch, Cornelius / Modern and Classical Languages  
Patrick, David L. / Chemistry  
Patterson, Charles / Modern and Classical Languages  
Pearce, Scott / Liberal Studies  
Pencil, Kraig K. / Decision Sciences  
Perry, Tara / Communication Studies  
Perzigian, Aaron / Special Education  
Peters, Kimberly / Communication Sciences and Disorders  
Peterson, Merrill A. / Biology  
Peyron, Mark / Engineering and Design  
Pierce, Clayton / Fairhaven

Pillitteri, Lynn / Biology  
Pine, Judith / Anthropology  
Piper, Paul / Library  
Pollard, Daniel / Biology  
Powell, Kristen Skylar / Management  
Prody, Gerry A. / Chemistry  
Purdue, Jeffrey / Library  
Purdue, Seiko Atsuta / Art and Art History  
Pyscher, Tracey / Secondary Education

### Q

Qualley, Donna J. / English  
Query, Jason / Economics

### R

Rangel Guerrero, Daniel / Modern and Classical Languages  
Rahmani, Armin / Physics and Astronomy  
Read, Thomas / Mathematics  
Rice, Melissa / Geology  
Riddle Buly, Marsha / Elementary Education  
Rider, David / AMSEC  
Riemann, Andreas / Physics and Astronomy  
Riggs, Anne / Psychology  
Rines, Kenneth / Physics and Astronomy  
Riordan, Catherine / Psychology  
Ritter, Marian B. / Library  
Rivera, Alicia Maria / English  
Robertson, Wayne / Educational Administration  
Robinson, Leanne / Instructional Technology and Special Education  
Roehl, Thomas / Management  
Roelofs, Matthew R. / Economics  
Rose, Jacqueline / Psychology  
Rossiter, David / Environmental Studies  
Roulet, Patrick / Music  
Roxas, Kevin / Secondary Education  
Rrushi, Julian / Computer Science  
Russell, Keith / Health and Human Development  
Rutschman, Carla J. / Music  
Rybczyk, John M. / Environmental Sciences

### S

Safavi, Farrokh / Finance and Marketing  
Salazar, Debra J. / Political Science  
Samant, Shantala / Management  
Sampaio, Cristina / Psychology  
Sanders, George D. / Accounting  
Sands, John / Management  
Sandvig, J. Christopher / Decision Sciences  
San Juan, Bernardo / Health and Human Development  
Sapin, Julia / Art and Art History  
Sarkar, Amites / Mathematics  
Sasnett, Roger / Special Education  
Sass, Mary / Management  
Sattler, David / Psychology  
Schade, Brittany / Design  
Schaefer, Christine / Teacher Education Outreach Programs and Secondary Education

Schermer, Elizabeth R. / Geology  
 Scheuermann, Margaret / Chemistry  
 Schleef, Linda / Special Education  
 Schulze, Sandra / Biology  
 Schwandt, Hilary / Fairhaven  
 Schwartz-Dupre, RaeLynn / Communication Studies  
 Schwarz, Dietmar / Biology  
 Schwede, Walter / Music  
 Seda, Takele / Physics  
 S'eiltin, Tanis M. / Fairhaven  
 Sekhan, Tejvir / Finance and Marketing  
 Seltz, Jennifer / History  
 Sharmin, Moushumi / Computer Science  
 Shaw, Erika / Shannon Point Marine Center  
 Shen, Yun-Qiu / Mathematics  
 Sherwood, Arthur / Management  
 Shewmake, Sharon / Economics  
 Shull, David / Environmental Sciences  
 Sim, Khim / Accounting  
 Simone, Genét / Teacher Education Outreach Programs  
 Singh-Cundy, Anu / Biology  
 Singleton, Sara / Political Science  
 Singleton, William R. / Accounting  
 Sirbu, Anca-Ioana / Economics  
 Skillman, Trish / TESOL and Elementary Education  
 Slouber, Michael / Liberal Studies  
 Smirnov, Serge / Chemistry  
 Smith, Kenton D. / Art and Art History  
 Smith, Peter / Library  
 Smith, Steven / Accounting  
 Sofield, Ruth / Environmental Sciences  
 Sommer, Lesley / Music  
 Soule, Catherine / Finance and Marketing  
 Spiegel, Paul / Chemistry  
 Spira, Tamara / Fairhaven  
 Springer, Mark C. / Decision Sciences  
 Stanger, Nick / Environmental Studies  
 Stangl, Paul / Environmental Studies  
 Staton, Mark G. / Finance and Marketing  
 Stelling, Pete / Geology  
 Stephan, Elizabeth / Library  
 Stevenson, Joan C. / Anthropology  
 Stewart, Mart / History  
 Stickley, Beth / Special Education  
 Stoops, Robert F., Jr. / Liberal Studies  
 Storer, Paul A. / Economics  
 Stout, Karen Rohrbauck / Leadership Studies  
 Strachan, Stephanie / Elementary Education  
 Sula, Ozan / Economics  
 Suprak, David / Health and Human Development  
 Symons, Lawrence / Psychology

**T**

Tag, Stan / Fairhaven  
 Tag, Sylvia / Library  
 Takagi, Midori / Fairhaven  
 Taylor, Audrey / Accounting  
 Teachman, Jay / Sociology  
 Thompson, Philip / Economics

Thompson, Roger R. / History  
 Thorndike, Tracy / Special Education  
 Timmons Flores, Maria / Elementary Education  
 Tognazzini, Neal / Philosophy  
 Tomasi, Massimiliano / Modern and Classical Languages  
 Towler, Chris / Political Science  
 Towner, Senna / Health and Human Development  
 Treneer, Stephanie / Mathematics  
 Trent, Carol / Biology  
 Trimble, Joseph E. / Psychology  
 Trueblood, Kathryn / English  
 Tsunokai, Glenn / Sociology  
 Turner, Lisa / Art and Art History  
 Tuxill, John / Fairhaven  
 Tyran, Craig K. / Decision Sciences  
 Tyran, Kristi / Management

**V**

Vajda, Edward J. / Modern and Classical Languages  
 van Boer, Bertil H., Jr. / Music  
 Vargas, Christian / Art and Art History  
 Vassdal Ellis, Elsi M. / Art and Art History  
 Velez, Veronica / Secondary Education  
 Vohs, Rosemary / Secondary Education  
 Vulic, Kathryn / English  
 Vyvyan, James R. / Chemistry

**W**

Wallin, David O. / Environmental Sciences  
 Wang, Claudia / Health and Human Development  
 Wang, Grace / Environmental Studies  
 Wang, Jennifer / Fairhaven  
 Wang, Jianglong / Communication Studies  
 Warburton, Theresa / English  
 Ware, Molly / Secondary Education  
 Warner, Daniel M. / Accounting and Management  
 Wasserman, Ryan / Philosophy  
 Watt, Peggy / Journalism  
 Wayne, Kate / Elementary Education  
 Webb, Sheila / Journalism  
 Wehrly, Eric / Finance and Marketing  
 Weir, Sara J. / Political Science  
 Welder, Rachael / Mathematics  
 Whitcomb, Dennis / Philosophy  
 Wilhelm, Wendy J. / Finance and Marketing  
 Wise, Christopher / English  
 Wolff, Michael / Political Science  
 Wonder, Nicholas X. / Finance and Marketing  
 Woods, Kevin / Music  
 Woods, Steven / Communication Studies  
 Wright, Adam / Economics

**X**

Xing, Zhiquan Janet / Modern and Classical Languages

## UNIVERSITY PERSONNEL

### Y

Yip-Hoi, Derek / Engineering and Design  
Youmans, Greg / English  
Young, Jeff / Biology  
Young, Kathleen / Anthropology  
Ypma, Tjalling J. / Mathematics  
Yu, Ning / English  
Yu, Yeon Jung / Anthropology  
Yusa, Michiko / Modern and Classical Languages

### Z

Zaferatos, Nicholas / Environmental Studies  
Zhang, Jianna / Computer Science  
Zhang, Jianying / Mathematics  
Zhang, Zhe George / Decision Sciences  
Zimmerman, Sarah / History

## Library Faculty

### Librarians

MARK GREENBERG (2013) Dean of Libraries and Professor. BA, University of Toronto; MA, University of Western Ontario; PhD, University of Florida; MLS, University of South Florida.  
JEANNE ARMSTRONG (1997) Professor. BA, University of Dayton; MLS, Dominican University; PhD, University of Arizona.  
MARGARET FAST (1997) Associate Professor. BA, Mills College; MA, University of British Columbia; MLS, State University of New York-Albany.  
J. GABRIEL GOSSETT (2009) Associate Professor. BA, University Wisconsin-Milwaukee; MLIS, University Wisconsin-Madison  
ELIZABETH JOFFRION (2012) Associate Professor. BA, Louisiana State University; MA, University of New Orleans; MLIS, University of Maryland.  
ROBERT LOPRESTI (1987) Professor. BA, Juniata College; MLS, Rutgers, The State University.  
REBECCA MARRALL (2010) Associate Professor. BS, Portland State University; MLIS, University of Hawaii at Manoa.  
JENNY OLEEN (2014) Assistant Professor. Scholarly Communications Librarian. BS, Kansas State University; BS, University of Arizona; MLS, Indiana University.  
MICHAEL OLSON (2014) Associate Professor. BA, University of Washington; MA & PhD, UCLA; MLS, UCLA Graduate School of Library and Information Science.  
ANDREA PETERSON (1999) Associate Dean of Libraries. BA, University of Utah; MLS, Indiana University.  
PAUL PIPER (1997) Professor. BS, MFA, University of Montana; MLIS, University of Hawaii.  
JEFF PURDUE (1999) Associate Professor. BA, MA, University of Illinois at Chicago; MLS, Dominican University, River Forest, Illinois.  
MARIAN A. RITTER (1969) Associate Professor. BME, MLS, University of Portland.  
PETER A. SMITH (1990) Associate Professor. BA, MA, MLS, Wayne State University.  
ELIZABETH A. STEPHAN (2008) Associate Professor. BA, Northwest Missouri State University; MLS, University of Wisconsin-Madison.  
SYLVIA TAG (1997) Associate Professor. BA, Colorado College; MLIS, University of Iowa.  
BOB THOMAS (2006) Associate Professor. BS, University of the State of New York; MLIS, University of Washington.

## Degrees and Certificates

Degrees granted from August 2014 to June 2015, inclusive:

Master of Education	50
Master of Arts	70
Master of Science	59
Master of Music	3
Master of Business Administration	28
Master in Teaching	47
Master of Professional Accounting	4
Master of Fine Arts	6
Bachelor of Arts in Education	194
Bachelor of Arts	2,021
Bachelor of Science	912
Bachelor of Fine Arts	33



## UNIVERSITY PERSONNEL

Bachelor of Music	26
Bachelor of Science in Nursing	24
Total (undergraduate)	3,210
Recommended for certification to the State Superintendent for Public Instruction — August 2014 to August 2015, inclusive:	
Residency Teacher Certificate	311

## **Appendix A - WWU Policies on Equal Opportunity/Nondiscrimination, Affirmative Action, Sexual Harassment, and Reasonable Accommodation**

### **Policies and Procedures**

[\(POL-U1600.02\) ENSURING EQUAL OPPORTUNITY AND PROHIBITING DISCRIMINATION AND RETALIATION](#)

[\(POL-U1600.05\) IMPLEMENTING AFFIRMATIVE ACTION PROGRAM](#)

[\(POL-U1600.04\) PREVENTING AND RESPONDING TO SEX DISCRIMINATION, INCLUDING SEXUAL MISCONDUCT](#)

- [Attachment to POL-U1600.04 Support Services and Reporting Options for People Who Experience Sexual Misconduct](#)

[\(POL-U1600.03\) ACCOMODATING PERSONS WITH DISABILITIES](#)

For more information, go to the [University's Policies and Procedures](#) website.

## Appendix B - Preventing and Responding to Sex Discrimination, Including Sexual Misconduct

### Policies and Procedures

[\(POL-U1600.04\) PREVENTING AND RESPONDING TO SEX DISCRIMINATION, INCLUDING SEXUAL MISCONDUCT](#)

- [Attachment to POL-U1600.04 Support Services and Reporting Options for People Who Experience Sexual Misconduct](#)

For more information, go to the [University's Policies and Procedures](#) website.

# Appendix C - Student Rights and Responsibilities Code

## WAC (Washington Administrative Code) sections:

### [WAC 516-21-010 Introduction](#)

Western Washington University students enjoy the same basic rights, privileges, and freedoms granted to all members of society. At the same time, acceptance of admission to the university carries with it an obligation to fulfill certain responsibilities and expectations as a member of the Western Washington University community.

As a condition of enrollment at Western, students must assume responsibility for their own actions and maintain an environment conducive to the academic success, safety, and well-being of others. In addition, they are expected to be truthful, respect the rights of others, and abide by all university policies and procedures, as well as all applicable local, state, and federal laws and regulations. All students are responsible for understanding and complying with the responsibilities and expectations set forth in this code.

The student conduct process at Western is designed to be a learning process that promotes an understanding of students' responsibilities as members of the university community. The objectives of the student conduct system, as set forth in this code, are twofold: to ensure that students act in a manner consistent with high standards of scholarship and behavior, and to maintain the safety and well-being of all members of the university community.

### [516-21-020 Definitions](#)

### [516-21-030 Jurisdiction](#)

### [516-21-040 Student responsibility for guests](#)

### [516-21-050 Academic dishonesty](#)

### [516-21-060 Conduct that threatens health or safety](#)

### [516-21-070 Disruptive behavior](#)

### [516-21-080 Failure to comply](#)

### [516-21-090 False information](#)

### [516-21-100 Fire safety and false alarms](#)

### [516-21-110 Harassment](#)

### [516-21-120 Hazing](#)

### [516-21-130 Illegal possession and/or use of alcohol](#)

### [516-21-140 Illegal possession and/or use of drugs](#)

### [516-21-150 Interfering with the conduct process](#)

### [516-21-160 Misuse of computers, electronic data or communication systems](#)

### [516-21-170 Obstructing police and safety personnel](#)

### [516-21-180 Sexual misconduct](#)

### [516-21-190 Student violation of the law](#)

### [516-21-200 Theft or intentional damage of property](#)

### [516-21-210 Trespassing](#)

### [516-21-220 Weapons and destructive devices](#)

### [516-21-230 Sanctions](#)

### [516-21-240 Student conduct system](#)

### [516-21-250 Student rights in the conduct process](#)

### [516-21-260 Procedures for immediate interim suspension](#)

### [516-21-270 Proceedings for violations of the code](#)

### [516-21-280 Basis for review](#)

### [516-21-290 Review procedures](#)

### [516-21-300 Deviations from established procedures](#)

### [516-21-310 Confidentiality of conduct proceedings and records](#)

### [516-21-320 Relationship of the code to university residences](#)

### [516-21-330 Interpretation of the code](#)

### [516-21-340 Revision of the code](#)

### [516-21-350 Referenced policies and regulations in the code](#)

# Appendix D - Academic Honesty Policy and Procedure

## 1. Policy

All Western Washington University students have an obligation to fulfill the responsibilities of their particular roles as members of an academic community. Honesty is essential to learning. Without it, fair evaluation for all is impossible. Academic integrity is demanded, and academic dishonesty at Western Washington University is a serious infraction dealt with severely. No student shall claim as his or her own, the achievements, work or arguments of others, nor shall he or she be a party to such claims. It is the instructor's responsibility to confront a student and to take appropriate action if such academic dishonesty, in the instructor's judgment, has occurred.

For help and guidance with the academic honesty procedures, students and faculty should contact the Secretary to the Academic Honesty Board at [AcademicHonestyBoard@wwu.edu](mailto:AcademicHonestyBoard@wwu.edu) or (360) 650-3480. The Student Life Office does not participate in the process, but can direct students to the appropriate office, and can be reached at [student.life@wwu.edu](mailto:student.life@wwu.edu) for additional support.

Students who do not meet the deadlines given in the procedures shall be deemed to have waived their right to appeal. If any officer of the University or the Academic Honesty Board fails to meet the deadlines or procedures established in this policy, then the student or faculty member may appeal to the next level in the process based on procedural grounds. The deadlines are set to provide a rapid resolution of the incident. However, unforeseen circumstances such as illness or absence from the campus may result in an extension of a deadline. Such extensions shall be recorded in writing by the unit head (the Chair or Director of the department where the faculty member resides), or the Dean of the appropriate college, or secretary to the Academic Honesty Board, as appropriate. If the end of fall or winter quarter is reached during the steps of the academic honesty procedure, the remaining parts of the process will be considered at the start of the next academic quarter. If an appeal has not moved all the way through the process before the end of spring quarter, and if all parties are not available and willing to proceed during the summer, then the clock "stops" until the start of fall term. An effort will be made to resolve the issues as soon as possible when there are extenuating circumstances (e.g., a student is graduating).

## 2. Academic Dishonesty

Academic dishonesty is not qualitatively different from other types of dishonesty. It consists of misrepresentation by deception or by other fraudulent means. Academic dishonesty compromises the instructor's ability to fairly evaluate any student's work or achievement. It includes, but is not limited to, the following:

- a. Giving, taking, or receiving unauthorized information to/from another person during any type of assignment or test.
- b. Obtaining or providing without authorization questions or answers prior to the time of an assignment or test.
- c. Using unauthorized sources for answers during any assignment or test.
- d. Taking part in or arranging for another person to complete an assignment or to take a test in place of another.
- e. Giving or receiving answers by use of signals or electronic communication during a test.
- f. Altering answers on a scored test and submitting it for a higher grade.
- g. Collaborating with others in a required assignment without the approval of the instructor.
- h. Stealing class assignments or portions of assignments, including electronic files, and submitting them as one's own.
- i. Not crediting participants for their part in a group project or claiming credit for work not done on a group project.
- j. Plagiarism, which is presenting as one's own in whole or in part the argument, language, creations, conclusions, or scientific data of another without explicit acknowledgment. Examples include, but are not limited to:
  1. Using another person's written or spoken words without complete and proper citation.
  2. Using information from a Website, CD-ROM or other electronic source without complete and proper citation.
  3. Using statistics, graphs, charts and facts without acknowledging their source.
  4. Submitting a paper purchased from a term-paper service.

## APPENDIX D

5. Paraphrasing, which is imitating someone else's argument using other words without acknowledging the source.
6. Claiming credit for someone else's artistic work, such as a drawing, script, musical composition or arrangement.
7. Using someone else's lab report as a source of data or results.
8. Using one's own or substantially similar work, produced in connection with one course, to fulfill a requirement in another course without prior permission. A student may use the same or substantially the same work for assignments in two or more courses only with written permission from the instructors of all the classes involved.
9. Submitting the results of a machine translation program as one's own work.

### 3. Procedures

Although instructors should make every effort to ensure that all students are aware of the policies for academic dishonesty, it is the responsibility of each student to read, understand, and uphold the standards of academic honesty.

An instructor suspecting an act of academic dishonesty shall discuss the matter thoroughly with the student involved. Arrangements for this discussion shall be made by the instructor within ten (10) working days after discovering the alleged violation. If the incident occurs at the end of the quarter, or in the event the student is absent from campus, the instructor shall attempt to contact the student via email and in writing at the most recent permanent address available in the Registrar's Office.

Should the instructor be unable to arrange a meeting with the student to discuss the incident in question before final grades are due, the instructor shall leave the grade blank and send a note to the Registrar. The Registrar shall in turn inform the student of his/her responsibility to contact the instructor. Should the student not respond to the faculty member by the 10th working day of the next academic quarter, not including summer, the grade will be changed to an F or where appropriate to "U" or "NP" as in the case of S/U grading or Pass/No Pass grading.

During the discussion between the instructor and the student, the student may be asked to explain his or her thought process and the sources of the information, ideas, data, or calculations presented in the work under dispute. Failure to give an adequate explanation can influence the instructor's decision.

Following this discussion, the instructor shall determine whether or not an act of academic dishonesty has occurred and determine an appropriate penalty. Within ten (10) working days of this discussion and the decision by the instructor that an act of dishonesty has occurred, the instructor will submit the Report of Academic Dishonesty Incident form summarizing the incident and include copies of all evidence. This form will be sent to the Vice President for Academic Affairs, the Registrar, the Dean's office, the Unit Head where the course resides (the program chair or, in the case of colleges without department chairs, the Dean), and the student. A record of the violation is maintained in the Office of the Vice President for Academic Affairs and the Registrar's Office. If the reported violation is the student's first offense, the student is required to complete a self-paced workshop on Academic Integrity maintained in the Testing Center.

If the reported violation is the student's second offense, the student is required to appear before the Academic Honesty Board, which will provide a recommendation for punishment commensurate with the severity of the second offense. Typical punishments will range from temporary suspension (length to be determined by Hearing Board based on the severity of the offense), to permanent expulsion from Western Washington University. Documentation of a third offense is likely to result in expulsion, although the Hearing Board has discretion in determining the severity of the punishment, based on the severity of the offense.

No student shall be allowed to withdraw from a course or from the University to avoid the consequences of academic dishonesty.

**Appeal:** A student accused of academic dishonesty and who feels the finding to be in error has recourse to an appeals process. Within five (5) working days of the finding of academic dishonesty the student may appeal to the unit head. The unit head shall make a ruling on the case within ten (10) working days of the appeal.

After learning of the unit head's ruling, either the student accused or the faculty member who initiated the charge may within five (5) working days appeal to the Dean of the college in which the course resides. In the

case where a faculty member is teaching for an all-university program not under the purview of a college dean, the appeal will go to the dean of the college where the faculty member's appointment resides. The dean shall make a ruling on the case as to whether 1) the student in question committed an act of academic dishonesty; and if so 2) whether the sanction was appropriate, within ten (10) working days of appeal.

Either the student or the faculty member who initiated the charge may appeal the findings of the Dean to the Academic Honesty Board within five (5) working days.

The Academic Honesty Board shall consist of two faculty members and two students to be selected from a pool of students and faculty. The Provost shall select the board members and appoint the chairperson. It is recommended that the students and faculty members appointed come from the college involved in the incident, as specified above. The board's findings are restricted to determining whether the student in question committed an act of academic dishonesty. A hearing shall be called within fifteen (15) working days of the filing of the appeal to the Academic Honesty Board unless both parties agree to a delay. Both the student and the instructor may be accompanied by one person, but that person may not speak on behalf of the student or the instructor. Both the student and the faculty member will be asked to present evidence, make oral arguments, and call witnesses, all of which shall be restricted to the issues under consideration and matters already in the record. Members of the board may question either party.

If the faculty member is on leave or is no longer employed by Western, the unit head shall appear in lieu of the faculty member. If the faculty member is available, but does not appear at the hearing, the form that he or she submitted will be considered to be his or her statement. If the student does not attend the hearing, the student's appeal shall be considered withdrawn, and the original finding of the faculty member shall be considered final. At the conclusion of the hearing, the board shall, in writing, a) find that there is insufficient cause to overrule the dean's decision, or b) find that there is sufficient cause to modify or overrule the dean's decision. The Academic Honesty Board shall send a written copy of its decision to the student, the faculty member, the unit head, the Dean, the Registrar, and the Provost.

Within five (5) working days of the ruling of the Academic Honesty Board, either side may appeal all findings to the Vice President for Academic Affairs, whose decision is final. The Vice President for Academic Affairs will meet with the board chairperson if (s)he intends to overrule or modify the decision of the board. Finally, all participants will be notified in writing by the Office of the Provost, as to the final decision.

## Appendix E - Student Records

### WAC (Washington Administrative Code) sections:

#### [516-26-010 Preamble](#)

The purpose of this student records policy is to establish rules and procedures that appropriately implement the Family Educational Rights and Privacy Act of 1974 (FERPA), 20 USC 123g. Western Washington University is committed to safeguarding appropriate access to student education records as well as maintaining individual student privacy. The University records officer works to ensure that information contained in student records is treated responsibly with due regard to its personal nature, and for the students', University's and community's needs. Questions regarding this policy should be addressed to the University records officer.

1. Generally, students have the right to review and copy their education records. Students also have the right to challenge the content of, release of, or denial of access to their education records.
2. The University will normally not permit access to the public without a student's permission; some exceptions exist as detailed in this policy.
3. The University may release directory information concerning a student unless the student requests in writing that it not be released.

Please read below for a complete description of the policy.

#### [516-26-020 Definitions](#)

#### [516-26-030 Access to education records](#)

#### [516-26-035 Access to education records — Limitations on access](#)

#### [516-26-040 Right to copy education records](#)

#### [516-26-045 Request for explanation or interpretation of record](#)

#### [516-26-050 Challenges — To content of education records — To release of education records — Or to denial of access to education records](#)

#### [516-26-055 Challenges — Informal proceedings](#)

#### [516-26-060 Challenges — Hearing before student academic grievance board](#)

#### [516-26-070 Release of personally identifiable information or education records](#)

#### [516-26-075 Release of personally identifiable information or education records — Nature of consent required](#)

#### [516-26-080 Release of personally identifiable information or education records — Exceptions to consent requirement](#)

#### [516-26-085 Release of information in emergencies](#)

#### [516-26-090 Release of directory information](#)

#### [516-26-095 Destruction of education records](#)

#### [516-26-100 Notification of rights under this chapter](#)



# Appendix F - Academic Grievance and Appeal Policy and Procedures

## 1. Policy

Students have protection, through orderly procedures, against arbitrary or capricious actions or decisions by their instructors; students also have protection against erroneous actions or decisions by academic units. At the same time, students are responsible for achieving and maintaining the standards of academic performance and excellence which are established by their instructors and for complying with all relevant policies, standards, rules and requirements which are formulated by the University and the University's academic units. A student wishing to pursue an academic grievance or appeal must use the following grievance procedure once having received notice of the action or decision which gives rise to the grievance. The emphasis of the grievance procedures is on informal resolution of the grievance. Grievances which involve hearings before the Student Academic Grievance Board should be rare. For help and guidance with the grievance procedures, students should contact the Dean of Students Office. [www.wvu.edu/dos/office/](http://www.wvu.edu/dos/office/)

Students who do not meet the deadlines given in the procedures shall be deemed to have waived their right to appeal. If any officer of the University or the Board fails to meet the deadlines established, the student may continue to the next level in the procedures. The deadlines are set to provide a rapid resolution of the grievance. However, unforeseen circumstances such as illness or absence from the campus may result in an extension of a deadline. Such extensions shall be recorded in writing by the unit head, dean or secretary to the Board, as appropriate. If the end of the quarter is reached during the process of following the grievance procedure, the remaining parts of the process will be considered at the start of the next academic quarter, not including summer session.

## 2. Academic Grievances

Academic grievances are limited to the following:

1. A claim by the student that an assigned grade is the result of arbitrary or capricious application of otherwise valid standards of academic evaluation, or
2. A claim by the student that the standards for evaluation are arbitrary or capricious, or
3. A claim by the student that the instructor has taken an arbitrary or capricious action which adversely affected the student's academic progress, or
4. A claim by the student that an academic unit has reached a decision not in keeping with University policy or taken an erroneous action which adversely affects the student's academic standing or academic career.

**NOTE:** Where an action is claimed to be in violation of affirmative action, a separate set of procedures are used (see Appendix A - WWU Policies on Equal Opportunity/Nondiscrimination, Affirmative Action, Sexual Harassment, Reasonable Accommodation ).

## 3. Procedures

### 1. Resolution and Appeals

A student with an academic grievance against an individual instructor shall first thoroughly discuss the matter with the instructor involved. The student must meet with the instructor within ten (10) days of receiving written notification of the action or decision which gives rise to the grievance or 10 days from the grade posting deadline. In the case of absence from the campus of either of the parties, the student shall inform the academic unit head, in writing, of the existence of the grievance and the unit head shall arrange for consultation between the parties concerned at the earliest possible opportunity. Should the faculty member be on extended leave, or have resigned from the University, the unit head shall act for the instructor.

The instructor and the student should make a good faith effort to resolve the grievance. Grievances resolved at this stage do not require a written record unless the resolution involves a grade change. The instructor will send a memo to the Registrar indicating the grade change. A copy will be sent to the student.

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If a resolution is not achieved between the student and the instructor within five (5) days after the first meeting between the student and instructor, the student has five (5) days to ask the academic unit head, or designee, to attempt to informally resolve the issue. The unit head, or designee, will meet with both parties to clarify the issues and attempt to resolve them. If the issue is resolved within five (5) days after the student has sought the assistance of the unit head, the unit head, or designee, shall prepare an informal agreement, in writing, for both sides to sign. No reasons need be given. Such an agreement, once signed by both parties, may not be appealed.

If an agreement cannot be reached within the five-day review period, and the student still wishes to pursue the grievance, the student shall request the unit head or designee to present the case to the dean of the college in which the academic unit resides. In the case where a faculty member from one college is teaching a course in another college, the appeal will go to the dean of the college where the course resides. In the case where a faculty member is teaching for an all-university program not under the purview of a college dean, such as Honors or Women Studies, the appeal will go to the dean of the college where the faculty member resides. The unit head has five (5) days to present the material to the dean. The material presented should include all of the documents relevant to the case and an analysis of the issues. The dean shall continue the process of seeking an informal resolution and collect more material as necessary. If a resolution can be reached, the dean shall prepare an informal agreement as above. Such an agreement, once signed by both parties, may not be appealed.

If the student has a grievance against an academic unit, the student shall first thoroughly discuss the matter with the unit head. The student must meet with the unit head within ten (10) days of receiving notification of the action or decision of the unit which gives rise to the grievance. If the grievance is not resolved within ten (10) days of the initial meeting between the student and the unit head, the student may request, in writing, further review by the dean of the college in which the academic unit resides, following the procedures for grievance.

If the grievance against a faculty member or academic unit is not resolved at this stage, the appropriate dean, as specified above, shall make a decision based on the merits of the case. The reasons for the decision shall be in writing and shall be given to both the student and the instructor and unit head. The dean's decision must be rendered and given to all parties within five (5) days of receiving the material. The written decision of the dean will include: (1) a statement of the grievance, (2) a statement of the efforts made to resolve the issue and (3) a statement of action, with reasons.

If the grievance does not involve a graduate student, either side may appeal a decision of the college dean to the Student Academic Grievance Board. The appeal must be filed within five (5) days after the receipt of the dean's written decision. Either party may appeal to the Academic Grievance Board in writing to the executive secretary of the academic grievance board. The appeal must be received within five (5) days after receiving the decision of the college dean. If the grievance involves a graduate student, either side may appeal a decision of the dean to the dean of the graduate school. The appeal must be filed within five (5) days after the receipt of the college dean's written decision. The graduate dean shall make a decision based on the merits of the case. The reasons for the decision shall be in writing and shall be given to the student, the instructor, unit head and the appropriate dean, as specified above. The graduate dean's decision must be rendered and given to all parties within five (5) days of receiving the material. The written decision of the graduate dean will include: (1) a statement of the grievance, (2) a statement of the efforts made to resolve the issue and (3) a statement of action, with reasons. Either side may appeal a decision of the dean of the graduate school to the Student Academic Grievance Board. The appeal must be filed within five (5) days after the receipt of the graduate dean's written decision. The party appealing to the Academic Grievance Board will inform the executive secretary of the academic grievance board.

### 2. Appeal to the Board

1. Composition of the Board. The Student Academic Grievance Board shall consist of six (6) members: three students and three faculty. An administrator appointed by the Vice President for Student Affairs will serve as executive secretary to the board and will be responsible for the arranging of meetings and the collection and maintenance of necessary documents. The board, for any hearing, will be selected in the following manner:
  - a. The pool of board members shall consist of six (6) faculty appointed by the Faculty Senate for three-year terms; six (6) undergraduate students and six (6) graduate students appointed by the Associated Students board for one-year terms.

- b. Each party to the grievance shall have the right to reject two faculty and two students from the list of the pool of board members.
- c. From the remaining members, the Vice President for Academic Affairs or designee shall select the board members for the hearing, and shall appoint the chairperson. If the grievance involves a graduate student, at least two of the board members must be graduate students.

## 2. Appeal Procedures

- 1. Lodging appeal. The party appealing to the board shall present the appeal to the executive secretary of the board within five (5) days after issuance of the dean's written decision. The letter of appeal shall state the basis of the appeal. The secretary will send a copy of the appeal to the second party to the grievance, who may respond in writing. All materials used at any stage of the grievance shall be made available to both parties, the unit head, and to the dean.
- 2. Mediation. If both parties agree to mediation, a mediator will be appointed by the Vice President for Academic Affairs or designee from a list of four persons previously appointed by the Faculty Senate. Each party to the grievance shall have the right to reject one mediator from the list of four. The mediator has five (5) days from the time of appointment to attempt to resolve the issue to the satisfaction of both parties. If the issue is resolved, the mediator shall prepare an informal agreement, in writing, for both sides to sign. No reasons need be given. Such an agreement, once signed by both parties, may not be appealed. If the issue is not resolved the appeal proceeds to a hearing.
- 3. Hearing. A hearing shall be called within fifteen (15) days of the filing of the appeal unless both parties agree to a delay, or unless the grievance is resolved through mediation.

A quorum is four (4) members of the board. Both the student and the instructor may be accompanied by an advocate (although not a legal professional).

Both the student and the faculty member shall be invited to present oral arguments which shall be restricted to matters already in the record. New causes for grievance may not be raised at the hearing. Members of the board may question either party.

No testimony may be taken by the board unless both parties are present, or have waived their right to be present.

At the conclusion of the hearing, the board shall, in writing,

- a. Request additional information, to be considered at a future hearing, or
- b. Find that there is insufficient cause to overrule the dean's decision and recommend to the Vice President for Academic Affairs that it be upheld, or
- c. Find that there is sufficient cause to modify or overrule the dean's decision and recommend appropriate action to the Vice President for Academic Affairs.

## 3. Appeal to the Vice President for Academic Affairs

Either party may appeal to the Vice President for Academic Affairs from a decision by the board. Such appeal shall be made, in writing, within five (5) days after the issuance of the board's written decision. The board chairperson has the right to make a written response to the appeal within five (5) days of filing the appeal. The vice president may overrule or modify the decision of the board only if that decision was arbitrary, capricious, based on insufficient information, or was beyond the scope of these procedures as defined in Section 2. The Vice President for Academic Affairs will meet with the board chairperson if (s)he intends to overrule or modify the decision of the board. The decision of the Vice President for Academic Affairs is final. Copies of the Vice President's decision will be sent to the student, faculty member, unit head, dean of the college in which the unit resides, dean of the graduate school if a graduate student is involved, chairperson and secretary of the board.

## 4. Maintenance of Records

All written statements and testimony considered in the grievance process and a copy of the final written decision of the board or academic vice president shall be retained on file in the academic vice president's office for a period of one (1) year following final disposition of the grievance.

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Where a solution or decision results in a grade change, the instructor shall inform the registrar of the grade change.

### 4. Definitions

These definitions are for the purposes of these procedures only:

1. "Academic unit" is Fairhaven College of Interdisciplinary Studies or a department within the Colleges of Business and Economics, Fine and Performing Arts, Humanities and Social Sciences, Sciences and Technology, Huxley College of the Environment, or Woodring College of Education.
2. "Unit head" is the department chairperson, or, in the case of Fairhaven college, the chairperson of the college personnel committee and the program director in the case of academic programs.
3. The unit head "designee" can be any faculty member or administrator from the academic unit. Appointment of the designee shall be in writing and sent to the Vice President for Academic Affairs.
4. "Dean" is the dean or dean's designee of the college in which the academic unit resides, unless specified otherwise. Appointment of the designee shall be in writing and sent to the Vice President for Academic Affairs
5. Reference to "days" means "school days" and includes the registration period and the week in which exams are scheduled.
6. WWU's Academic Year begins on the first day of instruction every fall term, and concludes at the end of final examination week every spring term (see academic calendar for exact dates). Summer Session is an exception to the Academic Year and grievances not resolved before Summer Session will be continued during the coming fall term.

## **Appendix G - Code of Ethics for the Faculty of WWU**

This Code of Ethics was adopted by vote of the faculty of Western Washington University on May 14, 1993, and was endorsed for inclusion in the Faculty Handbook by the Board of Trustees on July 8, 1993.

[Code of Faculty Ethics for the Faculty of Western Washington University](#)

## Appendix H - WWU Administrative Procedures

Western Washington University is required to develop and implement procedures that ensure equal opportunity; and to effectively address situations that violate its policies regarding equal opportunity and nondiscrimination, and sex discrimination, and accommodating people with disabilities. The following section outlines the University's internal procedures for handling complaints of illegal discrimination and making requests for reasonable accommodation.

[\(PRO-U1600.02A\) Discrimination Complaint Procedure](#)

### B. Process for Requesting Reasonable Accommodation

Employing officials, search committee chairs, supervisors, program directors, deans, faculty and department chairs may all receive requests for accommodation from persons with disabilities. Such requests may be submitted by employees, students, applicants for employment, individuals seeking admission to the University or its academic programs, and persons wishing to use University services or participate in University activities and events. The appropriate University contact varies, depending on whether the person requesting the accommodation is a student, employee, applicant, or a member of the general public.

It is the obligation of an individual with a disability who needs a reasonable accommodation to request that from an appropriate University contact, and to provide documentation of the disability if needed.

1. **Students.** Students with documented disabilities who are enrolled at the University are encouraged to seek accommodations and services through disAbility Resources for Students (DRS): Old Main Room 120; (360) 650-3083 (voice) or (360) 650-7175 (VP); drs@wwu.edu; www.wwu.edu/depts/drs.
2. **Employees.** Employees with disabilities are encouraged to inquire about reasonable accommodations to perform the essential functions of their job, meet performance and conduct standards, and enjoy equal benefits and privileges of employment. The process for requesting a reasonable accommodation can be found on Western's Human Resources website under Disability Services or by contacting Human Resources Disability Services at (360) 650-3771 or 711 (Washington Relay).
3. **Job Applicants.** Job applicants with disabilities are encouraged to inquire about reasonable accommodations if needed for the application and employment screening process. The policy and procedures for requesting a reasonable accommodation can be found on Western's Human Resources website. See contact information above.
4. **Applicants for Admission.** Applicants may request accommodation during the application process from the Admissions Office at (360) 650-3440 or disAbility Resources for Students (contact information above).
5. **Members of the General Public.** Persons with disabilities from the general public needing a reasonable accommodation to participate in a University activity, service or event open to the public are encouraged to contact either the program coordinator for that activity, service or event or the Vice Provost for Equal Opportunity and Employment Diversity: Old Main 345; (360) 650-3307 or 711 (Washington Relay); eoo@wwu.edu.

The Vice Provost for Equal Opportunity and Employment Diversity is the University's ADA Coordinator and may be reached in Old Main 345 or at (360) 650-3307, 711 (Washington Relay), or eoo@wwu.edu. The ADA Coordinator is responsible for ensuring that requests for accommodation are considered on a case-by-case basis in accordance with state and federal regulations, and that appropriate University officials are involved in evaluating the request, identifying funds and resources and implementing the accommodation.

## **Appendix I - Transportation Services**

WWU is committed to supporting sustainable transportation options and reducing automobile-dependent transportation. All students, faculty, and staff are encouraged to utilize the variety of transportation options available and minimize the use of motor vehicles. The Sustainable Transportation Office offers information and assistance to help students find the transportation options that best fit their needs. WWU is bordered by residential neighborhoods within easy walking distance of downtown, and is well served by public transportation. For information, contact Western's Sustainable Transportation program at 360-650-7960, [transportation@wwu.edu](mailto:transportation@wwu.edu) or go to [www.wwu.edu/transportation](http://www.wwu.edu/transportation).

### **Western Student Transportation**

The student transportation program provides transportation resources for students including a Viking Xpress Bus Pass for each student\*, Student Shuttle service, Zipcar, and a student Alternative Transportation Coordinator. The program is funded by a \$26.25 quarterly Student Transportation Fee. For more information, visit the student transportation website at [www.wwu.edu/transportation](http://www.wwu.edu/transportation).

\*Students taking 6 or more credits are automatically assessed the \$26.25 Student Transportation Fee; students taking 1-5 credits can opt in to the student transportation program by paying the fee. Fee and eligibility do not apply to courses offered through Extended Education online or off-site classes or non-credit programs.

### **Student Bus Pass**

The Student bus pass is valid for unlimited rides on all Whatcom Transportation Authority bus routes, including routes serving the Lincoln Creek Transportation Center and the 80X route serving Mount Vernon and Bellingham. Students must go to the Western Card office to have the bus pass encoded on their ID card for each academic year and summer quarter. Lost or damaged ID cards can be replaced at the Western Card office for a fee of \$8.00.

### **Student Shuttle**

The WWU Student Shuttle is a late night bus service that operates during the academic year and is open only to Western students. A valid Western ID card is required to board. The shuttle system consists of two routes that serve WWU, Downtown Bellingham, Bill McDonald Parkway, Happy Valley, Lincoln Creek Transportation Center, and Lakeway Center. The shuttle stops at all WTA bus stops along its route. Map and schedule are available on buses, and at [www.wwu.edu/transportation/westernstudentshuttle.shtml](http://www.wwu.edu/transportation/westernstudentshuttle.shtml).

### **Walking**

WWU is located within a mile of the Bellingham Central Business District and is surrounded by friendly residential neighborhoods. The campus is accessible via trails and an extensive sidewalk network through the neighborhoods. Walking is the cheapest way to go, and for trips of less than a mile, walking from door to door is usually just as fast as driving, parking and walking.

### **Bicycles**

Bellingham is a featured bicycle destination, and the community supports bicycle transportation. With more than 900 bike racks adjacent to residence halls and academic buildings, you are encouraged to bring your bicycle to Western. There are some restrictions on bicycling in campus pedestrian areas during high-traffic times. The WWU Bicycle Commuting Guide and Washington state bicycle traffic laws are available at [www.wwu.edu/transportation](http://www.wwu.edu/transportation). Bicycles can be registered at no charge with University Police at the Campus Services Building. Register your bike to increase the chance of having your bike returned if it lost or stolen and then recovered. Bicycle locks, lights, parts and repair assistance are available at the Outdoor Center bike shop in the Viking Union.

## APPENDIX I

### Public transit

Whatcom Transportation Authority (WTA) provides safe, high-quality, cost-effective, and accessible public transportation. WTA offers WWU convenient service with multiple routes Monday-Sunday. Routes serving Western connect with other routes at the downtown Bellingham Transit Station including regional transit connections at Skagit Station in Mount Vernon. Evening service connects WWU with other Bellingham destinations until 10 p.m. seven days a week. Easy to use bike racks are installed on every WTA bus. For WTA route and schedule information, call 360-676-RIDE or visit [www.ridewta.com](http://www.ridewta.com).

### Persons with disabilities service

All WTA buses (except emergency backup vehicles) are wheelchair accessible. Transit service is available for those unable to access or use fixed route buses through WTA Specialized Transportation by calling (360) 733-1144 (TTY call (360) 676-6844).

### Zipcar

Western Washington University has partnered with Zipcar to bring self-service, on-demand car sharing to the campus, for convenient use of a car when needed. Cars are parked in the central campus, near the library and primary bus stops. Students 18 and older can apply for WWU Zipcar membership. Rates start at \$7.50/hour or \$69/day. Gas, insurance and maintenance are included in the hourly rate. Learn more at [www.zipcar.com/universities/western-washington-university](http://www.zipcar.com/universities/western-washington-university).

### Park and Ride

The off-campus Lincoln Creek Transportation Center is convenient to Interstate 5 and a 10-minute bus ride to the center of campus. WTA routes serve the park and ride lot, providing a convenient alternative for parking on or near campus.

### Parking Services

Parking Services is located in the Campus Services Building 2001 Bill McDonald Parkway, at the south end of campus. Parking Services hours are 7:15 a.m. to 4:30 p.m. Monday-Friday.

Parking space is limited and parking regulations are strictly enforced. Anyone using campus parking facilities are required to purchase and display a valid University parking permit on any motorized vehicle. Drivers are encouraged to become familiar with the University parking and traffic regulations.

### Quarterly and Annual Parking Permits

Student parking permit applications for 2015/2016 will be available August 3, 2015. Check with [www.wvu.edu/ps](http://www.wvu.edu/ps) for application and deadlines. All Students must apply for parking to obtain a WWU Parking Permit.

Resident lot parking assignments are awarded by credits on file with WWU at the end of Spring quarter 2015.

Students living off campus are eligible to apply for and purchase C lot permits.

For those needing to drive occasionally a daily short-term parking permit may be purchased (see visitor parking below).

### Parking for Persons with Disabilities

Parking access is available throughout the campus for those with state disability permits.

A WWU permit is also required. Students must apply for their Disability Parking Permit online (see above). Both permits must be displayed during business hours.

Accessibility guides to the WWU campus are available at [www.wvu.edu/ps](http://www.wvu.edu/ps) or at Parking Services. If you have questions feel free to contact the Parking Services Office at 360-650-2945 or email us at [Parking@wvu.edu](mailto:Parking@wvu.edu).



## Parking for Visitors/Temporary Parking/Loading and Unloading

Visitors may purchase a permit online at [www.wvu.edu/ps](http://www.wvu.edu/ps), at Parking Services, pay at a meter or use a pay station in lots 6V, 12A or C all hours of the day.

Pay stations in G lots are available at 4:30pm Monday through Friday and all hours on the weekend.

A 20 minute unloading/loading permit can be obtained at Parking Services at no charge.

For information on arranging guest parking visit [www.wvu.edu/ps](http://www.wvu.edu/ps) or contact Parking Services at 360-650-2945.

Daily and Hourly Parking	Per day/hour
Daily parking (7 a.m. to 4:30 p.m.)	\$2 per hour
All day parking	\$10 per day
Meter parking (all hours)	\$2 per hour
Motorcycle parking	\$2 per day
Pay box lots (7 a.m. to 4:30 p.m.)	\$2 per hour
Pay box lots (after 4:30 p.m.)	\$1 per hour

## Evening/After Hours and Metered Parking

Permits are required in all lots all hours with the exception of lots C and 12A. Parking is available in the C and 12A gravel lots with no permit required Monday-Friday 4:30PM to 7AM and all day on weekends.

Lots are enforced as posted on the sign at the entrance to each lot.

You may obtain a permit at the pay stations located throughout the campus or pay to park in a metered space.

Disability accessible spaces always require a valid state disability permit.

Payment is always required at meters; permits are not valid for parking in a metered space.

Students with a valid bus pass may obtain an After-Hours permit at Parking Services.

## 2015/2016 Permits

2015/2016 Student Permit Quarterly Prices (subject to change). Academic and Annual permits also available. Summer permits are at a discounted rate.

Quarterly Parking permit fees	Quarterly total
Campus resident parking	\$91.27
Commuter Student C Lots (and Resident Overflow CR)	\$79.65
Carpool permit	\$59.43
Motorcycle parking	\$16.24
Disability Permit	\$79.65

## Additional Information

For additional information regarding maps, regulations, visitor or event parking, fees, citations, or any parking questions please visit us at [www.wvu.edu/ps](http://www.wvu.edu/ps), call 360-650-2945 or e-mail us at [Parking@wvu.edu](mailto:Parking@wvu.edu).

# Appendix J - Satisfactory Academic Progress Policy for Financial Aid Recipients

## Policies and Procedures

[\(POL-U7600.01\) Student Financial Aid: Satisfactory Academic Progress for Financial Aid Recipients](#)

### Specific Requirements for Alternative Student Loan Recipients

All satisfactory academic progress requirements apply to the Alternative Student Loan program regardless of lender requirements.

### Specific Requirements for Alaska Loan Recipients

Satisfactory academic progress requirements for continued receipt of Alaska Student and Alaska Family Education loans differ from those associated with Federal and Washington State aid programs. Full-time attendance is required for most Alaska Loan programs. The Alaska Supplemental Education Loan may allow for less than full-time attendance. Students considering this option are urged to consult the Alaska Commission on Postsecondary Education, as state residency and future loan eligibility may be jeopardized by such enrollment.

For more information, go to the [University's Policies and Procedures](#) website.

## **Appendix K - Policy Concerning Alcohol and Other Drugs**

[\(POL-U7400.01\) Policy Concerning Alcohol and Other Drugs](#)

For more information, go to the [University's Policies and Procedures](#) website.

## **Appendix L - Course Materials**

[\(POL-U8800.02\) Ordering and Communicating Course Materials](#)

For more information, go the [University's Policies and Procedures](#) website.

# Directions

When approaching Bellingham from the north or south on Interstate 5, take Exit #252, marked Samish Way and WWU, turn west onto Samish Way and follow the signs to Bill McDonald Parkway and the University campus.

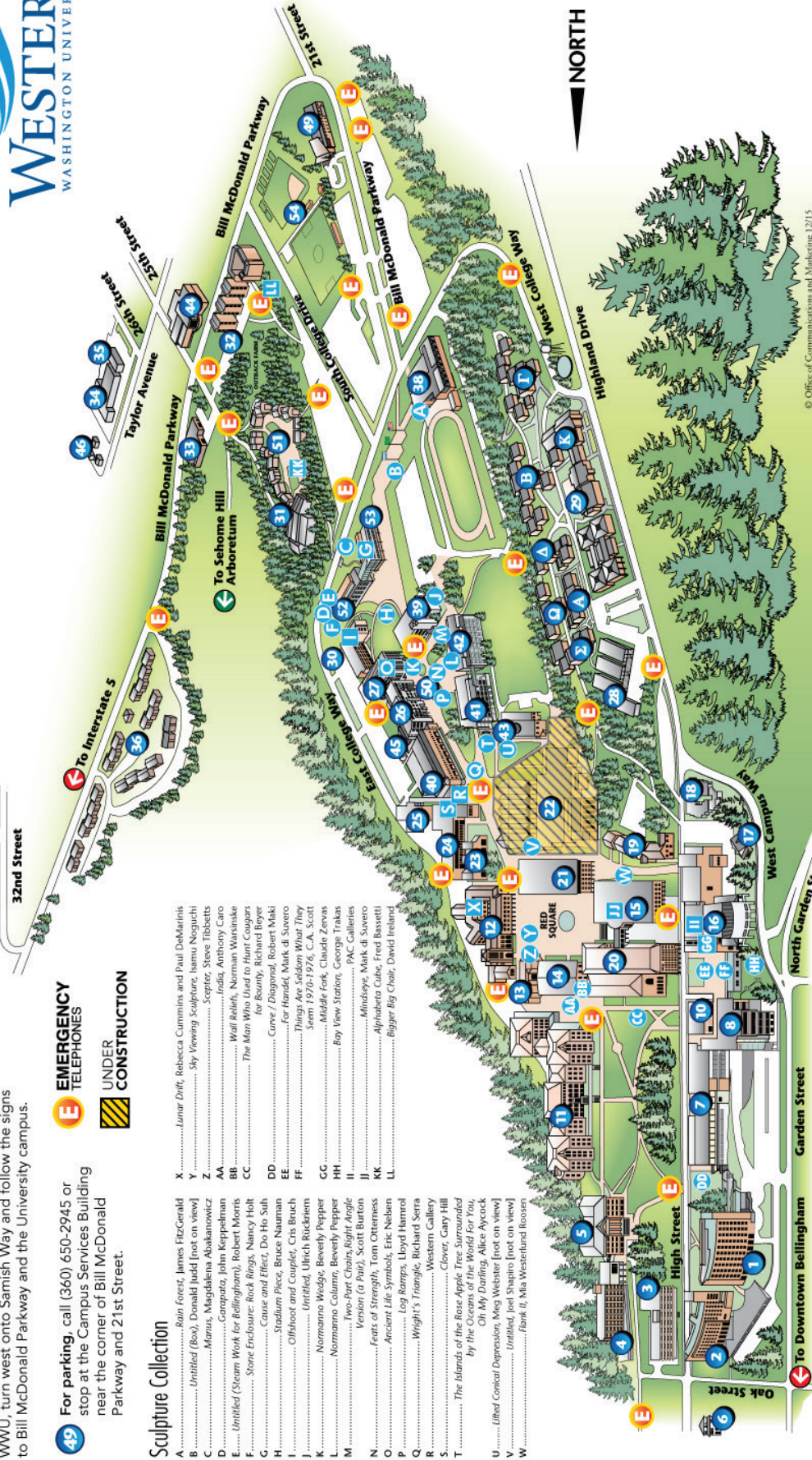
**49** For parking, call (360) 650-2945 or stop at the Campus Services Building near the corner of Bill McDonald Parkway and 21st Street.

**E** EMERGENCY TELEPHONES  
**U** UNDER CONSTRUCTION

## Sculpture Collection

- A ..... Rain Forest, James FitzGerald
- B ..... Untitled (Box), Donald Judd [not on view]
- C ..... Marus, Magdalena Abakanowicz
- D ..... Comptata, John Kippelman
- E ..... Untitled (Steam Work for Bellingham), Robert Morris
- F ..... Stone Enclosure: Rock Rings, Nancy Holt
- G ..... Cause and Effect, Do Ho Suh
- H ..... Stadium Piece, Bruce Nauman
- I ..... Offshoot and Couplet, Cric Bruch
- J ..... Untitled, Ulrich Rückriem
- K ..... Normanno Wedge, Beverly Pepper
- L ..... Normanno Column, Beverly Pepper
- M ..... Two-Part Chains, Right Angle Version (a Pair), Scott Burton
- N ..... Feats of Strength, Tom Otterness
- O ..... Ancient Life Symbols, Eric Nisben
- P ..... Log Ramps, Lloyd Hamrol
- Q ..... Wright's Triangle, Richard Serra
- R ..... Western Gallery
- S ..... Clover, Gary Hill
- T ..... The Islands of the Rose Apple Tree Surrounded by the Oceans of the World for You Off My Darling, Alice Wycock
- U ..... Untitled Central Depression, Meg Webster [not on view]
- V ..... Untitled, Inal Shapiro [not on view]
- W ..... Frank II, Mia Westerlund Holzon

- X ..... Lunar Drift, Rebecca Cummins and Paul DeMarinis
- Y ..... Sky Viewing Sculpture, Isamu Noguchi
- Z ..... Sculpture, Steve Tibbets
- AA ..... India, Anthony Caro
- BB ..... Wolf Reliefs, Norman Wausonke
- CC ..... The Man Who Used to Hunt Cougars for Bounty, Richard Beyer
- DD ..... Curve / Diagonal, Robert Maki
- EE ..... Things Are Seldom What They Seem 1970-1976, C.A. Scott
- FF ..... Middle Fork, Claude Zervas
- GG ..... Ray View Station, George Trakas
- HH ..... PAC Galleries
- II ..... Mindcye, Mark di Suvero
- JJ ..... Alphabeta Cube, Fred Bassetti
- KK ..... Biggar Big Chair, David Ireland
- LL



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Academic Instructional Center (AI).....	52	Omega [Residence].....	W
Academic Instructional West (AW).....	53	Sigma [Residence].....	S
Administrative Services (AC).....	47	Ross Engineering Technology (ET).....	40
Administrative Services Building A (AE).....	48	Science, Mathematics, & Technology Education (SU).....	43
Alumni House (AL).....	6	Steam Plant (SP).....	25
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Communications Facility (CF).....	30		
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Fine Arts, Western Gallery (FI).....	24		
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Higginson Hall [Residence] (HG).....	3		
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Gamma [Residence].....	G		
Kappa [Residence].....	K		