



*A Sample  
Dental Therapy  
Curriculum for  
Community  
Colleges*

Developed by



W.K.  
KELLOGG  
FOUNDATION™



AMERICAN  
ASSOCIATION OF  
COMMUNITY  
COLLEGES

# *A Sample Dental Therapy Curriculum for Community Colleges*

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2017

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*Dental therapy is an emerging oral health profession helping to address critical gaps in care and services for the tens of millions of people who face challenges finding a dentist to treat them.*

Working with dental teams the way that nurse practitioners work with medical teams, dental therapists provide routine oral health care under the on and off-site supervision of a dentist, transforming the way oral health care is being delivered.

As a public health dentist and academician, I think a marriage of dental therapy and community colleges holds great promise. With over 90 years of success around the world, dental therapists are community-based practitioners that have a narrow scope of practice and specialized training, such as motivational interviewing, designed to meet the needs of communities that have been without regular access to care. When trained appropriately, dental therapists not only provide much needed treatment, but they also have a more holistic focus that includes health promotion and prevention. As a result, dental therapists have the ability to help dentist led teams to employ a public health approach to improving the oral health outcomes of communities while maintaining a patient-centered care-delivery model.

Community colleges are perfectly positioned to play a central role in recruiting, educating and developing this community-based oral health practitioner. Starting as part of U.S. based dental teams in Alaska just

over a decade ago, the profession of dental therapy took a giant step forward in 2015 when the Council on Dental Accreditation adopted national standards for a program of at least three academic years with advanced standing opportunities for dental hygienists and assistants. This presents community colleges with an important opportunity to seize this moment of growth for the dental therapy profession.

Community colleges are able to deliver efficient dental therapy education in the prescribed time and at a low cost to students, creating a more accessible education opportunity for people from all communities. This is particularly critical for potential students from traditionally underserved areas who could enter this new profession and return to provide culturally competent services back in their home communities.

This report, developed in partnership with Community Catalyst, the W.K. Kellogg Foundation, the Pew Charitable Trusts and the American Association of Community Colleges, provides a rationale for why community colleges are well-positioned to educate students to become dental therapists and a model dental therapy curriculum that community colleges may use to begin developing their own dental therapy educational programs.

We hope this curriculum will serve as a starting point—for understanding, contemplation, and, I hope eventually action to bring this essential emerging profession to our nation's community colleges.

*Caswell A. Evans, DDS, MPH*

Dental Therapy Curriculum Workgroup, Chairperson

## *Introduction*

The U.S. Surgeon General, in a 2000 report and call to action, described oral disease as a “silent epidemic” among low-income populations, certain racial and ethnic minority groups, people with disabilities, and institutionalized elders.<sup>1</sup>

More than 48 million Americans live in what the federal government has deemed dental professional shortage areas. This situation is projected to worsen. About two-thirds of the nation’s dentists do not treat Medicaid patients, partly due to low Medicaid payment rates, yet Medicaid is the dental insurer for more than 50 million Americans. Meanwhile, the number of people seeking dental care in hospital emergency rooms has doubled since 2005.

For just over a decade, policymakers, foundations and others seeking to improve oral health access in the U.S. have sought to expand the use of midlevel dental providers, often called dental therapists.

Dental therapists are oral health practitioners<sup>2</sup> who work under the supervision of a dentist to provide routine preventive and restorative care and who emphasize prevention and health education in community settings to help improve overall community oral health.

Dental therapists have a long, successful history in more than 50 countries.<sup>3</sup> They began working in the U.S. in 2004, in Alaska, and then in Minnesota in 2009. Recently, Maine and Vermont authorized dental therapists, and 10 more states are considering legislation to do the same – all with the aim of expanding access to care for underserved populations. The dental therapy workforce in the U.S. is nascent – in 2016 their numbers approached 100 – yet clearly growing. This report provides background on this work and introduces and describes the associate’s degree curriculum used to train dental therapists.

*More than 48 million Americans live in what the federal government has deemed dental professional shortage areas.*

## Development of report and curriculum

Community Catalyst prepared this report, with support from the W.K. Kellogg Foundation and with assistance from the Pew Charitable Trusts and the American Association of Community Colleges. A follow-up to a 2013 Community Catalyst report on educational standards for dental therapists, this report is designed to introduce community colleges to the discipline of dental therapy, encourage them to play a central role in educating this emerging workforce, and provide a model curriculum to support program development.<sup>4</sup>

A look at the nation's first dental therapy program in Alaska shows how this new profession is serving unmet oral health needs while creating living-wage employment opportunities for college students in economically depressed communities. The recent transition from offering a certificate in dental therapy to an associate's degree is further expanding opportunities for community members trained as dental therapists to continue their education and also become dental hygienists or dentists.



A young girl receives treatment from a dental therapist.

This report is offered to community colleges in recognition of their commitment to address the educational and workforce needs of local communities and to provide broad access to affordable higher education, often for some of the nation's most diverse and economically challenged populations, many of whom are first generation college students. Community colleges have educated the majority of the nation's dental hygienists and they are a logical home for the education of dental therapists.

A workgroup of dentists, dental hygienists, community college

leaders, and other health professions experts contributed to this report (see Appendix). The workgroup's charge was to translate Alaska's dental therapy curriculum—a two-year, full-time certificate program operated by a tribal health organization—into an associate degree program that community colleges could offer. Fortuitously, the Alaska Native Tribal Health Consortium (ANTHC), which administers Alaska's dental therapy educational program,<sup>5</sup> was advancing on this same path as it developed a new partnership with a tribal community college, and offered to share its new curriculum with the workgroup.

### HISTORY OF THE CURRICULUM

Concluding a long collaboration with the University of Washington MEDEX program, the ANTHC in early 2016 transitioned to a new partnership with Ilisagvik College, Alaska's only regionally accredited Tribal College and a member of the American Association of Community Colleges, to develop a curriculum for an Associate (degree) of Applied Science in Dental Health Therapy, the curriculum provided in this report. The 69-credit, 1,500-clinical-hour program received approval from the Northwest Commission on Colleges and Universities—the regional accrediting board for Alaska's academic institutions—and enrolled its first students in the summer of 2016.

The curriculum was developed to meet new dental therapy accreditation standards issued in 2015 by the Commission on Dental Accreditation (CODA), recognized by the U.S. Department of Education as the accreditor for all dental practitioner education programs. Because CODA has not yet begun to accredit dental therapy programs, this curriculum awaits approval by that specialty body. At the time of this report, ANTHC and Ilisagvik College were preparing for the CODA approval process. It is important to note that some states may require dental therapy education programs to meet additional standards or adopt specific policies. Individual states may also require dental therapy program graduates and professionals to meet additional standards or licensing requirements as a condition of practice.

## STRENGTHS OF CURRICULUM

Ilisagvik's curriculum includes the content used in Alaska for almost a decade to educate dental therapists to successfully serve remote communities that previously lacked routine access to a dentist. To date, 35 dental therapists have provided care to an estimated 45,000 Alaskan Natives. A 2010 evaluation conducted by Research Triangle Institute, an independent research organization, found the quality of care provided by dental therapists to be on a par with that of care provided by dentists for the same procedures.<sup>6</sup>

Given the ANTHC program's strong track record and the Ilisagvik curriculum's alignment with CODA standards, the workgroup reviewed and moved to support the Alaska curriculum as a model for the nation's community colleges.

Community colleges may use the model curriculum in total or in part; it offers a starting point for colleges to customize programs to fit their own formats for educating dental therapy students and to also meet the unique educational needs of students with a background as dental hygienists. It may also provide core content for collaborations between community colleges and four-year institutions to create new degree programs or to develop academic pathways for community college students and graduates.

## *A brief history of dental therapy*

Almost a century of experience and practice in over 50 countries underpins dental therapy practice. New Zealand established the profession in 1921 to address the poor oral health of school children. As New Zealand's dental therapists demonstrated their value by lowering tooth decay rates among school children, other countries followed suit. Currently, these practitioners serve as oral health team members in 53 other countries, including Canada, the United Kingdom, Australia, and the Netherlands.<sup>7</sup> Although the profession is relatively new in the United States, momentum here is growing as more states and tribal nations embrace the dental therapy profession as part of the solution to addressing severe oral health access problems.

Evaluations to date of dental therapy programs in Alaska and Minnesota show that dental therapists provide high-quality care and expand access for underserved populations in those states.<sup>8</sup> As of October 2016, 35 dental therapists were practicing in Alaska. In Minnesota, 58 dental therapists cared for predominantly low-income and underserved patients in federally qualified health centers, hospitals, nonprofit clinics, and private practices.<sup>9</sup>

Recently, two additional states authorized dental therapists, Maine in 2014 and Vermont in 2016. Approximately ten state legislatures, including those in Kansas, Massachusetts, Michigan, Arizona, New Mexico, Ohio, North Dakota, and Washington, are considering similar proposals. Tribal interest in the model has also grown. In 2016, three tribes – one in Washington and two in Oregon – began to employ dental therapists and send students to Alaska to be trained as dental therapists.

## EDUCATIONAL PROGRAMS IN THE U.S.

In 2015, CODA issued guidelines for dental therapy calling for a minimum of three academic years of education, without specifying a degree requirement.<sup>10</sup> In addition, the standards include an advanced standing pathway for dental hygienists. Before the CODA guidelines, state legislatures determined education requirements, with some calling for a baccalaureate-level degree or higher. The national guidelines provide educators, and legislatures, what is needed to standardize education programs.

Currently, three institutions of higher education—one in Alaska and two in Minnesota—prepare dental therapists for practice in the U.S. Until recently, dental therapists in Alaska were educated in a two-year, full-time, year-round program (similar to three academic years) and awarded a certificate. Students beginning programs in 2016 will earn a certificate of completion and an associate's degree from Ilisagvik College in Barrow, AK. In contrast, while preparing students for essentially the same scope of practice as in Alaska, the University of Minnesota's original dental therapy program awarded a bachelor's degree. This program recently adopted a combined-degree approach that offers a dental hygiene degree and a master's degree in dental therapy. The second training institution in Minnesota also

offers a combined bachelor's degree in dental hygiene and a master's degree in dental therapy. It is operated collaboratively by Normandale Community College and Metropolitan State University, illustrating the potential for community colleges to partner with education programs that award higher degrees.

Legislation proposed in a number of states follows the CODA guidelines, creating opportunities for community colleges to offer these programs without the need to collaborate with other colleges or universities. As more states authorize dental therapists, the CODA guidelines are expected to be legislated as the standard for dental therapy education programs across the country.

## *Dental therapy vision, education, competencies*

Throughout the nation, many people live without sufficient access to oral health care and services. Many suffer from untreated disease while many more live without the preventive services that evidence shows are needed to maintain good oral health. Populations with poor access to oral health services include people living in poverty, inner cities, remote areas, and on American Indian lands, as well as racial and ethnic minority groups, elderly people, and individuals with disabilities. Oral health workforce shortages and imbalances, resulting from the poor distribution of dentists available to care for these populations, contribute significantly to this situation.

Many seeking to address this workforce problem advocate for expanded oral health teams to include dental therapists who can provide underserved populations with quality, patient-centered, culturally competent care. Dental therapy advocates also see a tremendous opportunity for underserved communities to grow their own dental therapy workforces from within to improve access to oral health care. This “grow-our-own” model centers on communities promoting the education of their own residents with the expectation that many will return after graduation to practice. This focus on



*Dr. Tony Brusca instructs dental therapy student Bonnie Johnson.*



expanding educational and career opportunities for community members also creates workforce mobility through quality jobs and advancement opportunities, which lead families to greater security and prosperity.

Key to the success of Alaska's dental therapy workforce program is the cultivation of individuals from within Alaska Native communities to serve as dental therapists. Most of these sponsored students return to those communities to practice after completing their education. The program has provided Alaska Native communities with high-quality oral health professionals who understand the cultural values, health beliefs, and challenges of the patients they serve. Research finds that providers who meet patients' cultural needs help to improve patient satisfaction and quality of care.<sup>11,12,13,14</sup>

Moreover, patients are more likely to develop trusting relationships with dental therapists from their same community. That trust contributes to maintaining the continuity of care necessary for good oral health. Oral health teams that include dental therapists have also provided outreach and education strategies to strengthen community health promotion and disease prevention initiatives.

The vision of dental therapy is one of a primary oral health provider who is supervised by a dentist as part of an expanded oral health team and can provide care for underserved populations in both traditional offices and clinic settings and in schools, nursing homes, and other locations that offer patients convenient and accessible care. Dental therapists provide a tremendous benefit to communities. They deliver high-quality, culturally competent, effective care in community settings that tend to be cost-efficient, optimizing the health care system.<sup>15</sup>

In accordance with this vision, dental therapy education and practice emphasize oral health wellness, disease prevention, and timely care and treatment. Curricula used in Alaska and Minnesota prepare dental therapy graduates to work as members of a multidisciplinary oral health team supervised by a dentist, to provide assessment and restorative dental treatment services, to serve as patient advocates, and to carry out health promotion and disease prevention programs for maintaining and improving health. Dental therapists are educated and trained to the same level as a dentist for their scope of practice. Although each authorizing state determines the specifics of a dental therapist's scope of practice, the CODA dental therapy guidelines include the following elements:

- Preventive care, such as patient education, screenings, and interventions, in both clinical and community settings
- Dental evaluation and treatment planning, including risk assessments
- Dental prophylaxis including cleanings, placement of sealants, and fluoride treatments
- Amalgam, glass ionomer, and direct composite restorations
- Uncomplicated tooth extractions

In addition, dental therapy practice demands sound judgment, highly developed interpersonal skills, confidentiality in communicating with patients, dedication to patient well-being, and a commitment to ethical practice. Dental therapy education requires high-quality institutions, with skilled faculty, including dentists, to teach academic and clinical courses, as well as content needed to hone communication and patient advocacy skills. Ideally, institutions will prepare students for non-traditional practice settings to better reach and provide care for underserved patients living in rural and urban locations, as well as to provide culturally competent and language-appropriate services for people from different cultural backgrounds.

## *Dental therapy programs and community colleges: a ‘solid’ match*

Growing state and tribal interest in dental therapy points to the need for more educational programs. Community colleges offer a solid and appropriate ‘home’ for dental therapy education. Indeed, this perception is not unwarranted.

1. *Community colleges and dental therapist programs share core values and purposes.* Both value diversity—racial, ethnic, cultural, and economic—and address the needs of underserved populations and communities, including providing access to mainstream American privileges such as health care and affordable education.
2. *CODA dental therapy guidelines do not tie education to a specific degree type.* The door is open for community colleges to play a central role in offering dental therapy education programs.
3. *Many community colleges already possess the infrastructure needed to create dental therapy programs.* The infrastructure supporting dental hygiene education is appropriate for dental therapy education: dental labs and equipment, faculty (i.e., licensed dentists), and clinical site agreements. Currently, more than 200 community colleges offer dental hygiene programs.
4. *Community colleges need an alternative to the dental hygiene program.* The federal government projects an oversupply of 28,000 dental hygienists by 2025, while demand for enrollment in community college dental hygiene programs remains high.<sup>16</sup> There is documented demand for providers who can treat tooth decay, which affects an estimated 25 percent of low-income children and nearly 50 percent of low-income adults. Dental therapy education affords community colleges an alternative offering in a dental
5. *Creating dental therapy programs at community colleges can offset the loss or devaluing of associate degree health professions programs from “upcredentialing”.* The value of community college health professions programs is increasingly threatened by efforts to mandate additional health profession credentials, most notably in nursing. “Upcredentialing” limits opportunities for community college students, health care workforce diversity, and culturally competent care for underserved communities. Creating new health professions programs ensures that community colleges continue to provide students access to health professions careers with sustainable wages that offer a foothold in the middle class through quality jobs and advancement opportunities.
6. *Community colleges are in the ‘right’ locations for dental therapy programs.* About half (48 percent) of community colleges are rural or rural-serving institutions. Those colleges are in, near, or perhaps the closest college to many underserved communities that would likely value access to a dental therapist program to help build a local supply of providers (a ‘grow-our-own’ strategy to address oral health care needs).
7. *Dental therapy education supports student success.* An increase in health professions programs is likely to contribute to community college completions, as the greatest community college completion success is in health professions education.

## Summary

The nation's oral health workforce is evolving to include dental therapists and requires programs to educate these practitioners. Community colleges and dental therapy education programs are a good match in terms of core values and goals related to diversity and delivering care to underserved populations and communities. Community colleges 'check' many development needs of dental therapy education programs, including:

- Serve the nation's most diverse higher education student population.
- Located in or near rural and other underserved areas where providers who can treat tooth decay are scarce, providing the opportunity for 'grow-our-own' approaches.
- Possess the infrastructure to support dental therapy programs (via dental hygiene and health professions programs: labs, dental equipment, faculty and clinical sites).

- Graduates from existing programs (hygienists, assistants) that make excellent candidates for enrollment in dental therapy programs.
- Nation's most cost-effective and efficient means of ensuring well-educated, competent health care providers.
- Experience in achieving accreditation, with decades of success working with dental hygiene accreditor.

Community colleges are strongly positioned to play a critical role in educating the dental therapy workforce that is emerging in the U.S. This report, with its curriculum model, is both a resource and a starting point for institutions interested in pioneering this educational field.

## NOTES

- 1 United States Department of Health and Human Services. (2000). Oral Health in America: A Report of the Surgeon General.
- 2 Dental therapists have some overlap with dental hygienists but also work complementary to them, performing restorative procedures including the drilling and filling of cavities and limited tooth extractions, all under dentist supervision.
- 3 Nash, D.A. et al 2012. "A Review of the Global Literature on Dental Therapists". Community Dentistry and Oral Epidemiology. Article first published online May 3, 2013.
- 4 Community Catalyst. 2013. "Recommended Standards for Dental Therapy Education Programs in the United States." Advisory Panel Report and Recommendations. Available online at: <http://www.communitycatalyst.org/doc-store/publications/dental-therapy-education-standards.pdf>
- 5 Alaska dental therapists are known as Dental Health Aide Therapists (DHAT).
- 6 RTI International (2010). *Evaluation of the Dental Health Aide Therapist Workforce Model in Alaska*. Available online at: <http://www.wkkf.org/resource-directory/resource/2010/10/alaska-dental-therapist-program-rti-evaluation-report>.
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- 8 Bornstein, David. (2014, October 30) Looking a Dangerous Disease in the Mouth. Available online at: [http://opinionator.blogs.nytimes.com/2014/10/30/looking-a-dangerous-disease-in-the-mouth/?\\_r=0](http://opinionator.blogs.nytimes.com/2014/10/30/looking-a-dangerous-disease-in-the-mouth/?_r=0).
- 9 Minnesota Department of Health. (2014). *Early Impacts of Dental Therapists in Minnesota*. Report to the Minnesota Legislature 2014. Available online at: <http://www.health.state.mn.us/divs/orhpc/workforce/dt/dtlegrpt.pdf>.
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- 15 Kim, F.M. (2013). *Economic Viability of Dental Therapists*. Community Catalyst. Available online at: <http://www.communitycatalyst.org/doc-store/publications/economic-viability-dental-therapists.pdf>.
- 16 National and State-Level Projections of Dentists and Dental Hygienists in the U.S., 2012-2025.; 2015. <http://bhwh.hrsa.gov/healthworkforce/supplydemand/dentistry/nationalstatelevelprojectionsdentists.pdf>. Accessed October 31, 2016.

## Curriculum Standards: 2-12

Didactic dental sciences content must ensure an understanding of basic dental principles, consisting of a core of information in each of the following areas within the scope of dental therapy:

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 a.</b> Tooth Morphology	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	Understanding of basic tooth morphology and how this effects caries susceptibility
	<b>DHAT 111</b> <i>Dental Therapy Lab I</i>	Gain a more in depth and clinically applicable understanding of dental anatomy and tooth morphology <ul style="list-style-type: none"> <li>Etiology and development of dental anomalies in tooth numbers, size, structure, shape, and color</li> </ul>
	<b>DHAT 152</b> <i>Anatomy/Physiology/Pathology of the Head and Neck</i>	Dental anatomy <ul style="list-style-type: none"> <li>Knowledge of primary and permanent teeth, including Morphology</li> </ul>
	<b>DHAT 153</b>	Tooth morphology <ul style="list-style-type: none"> <li>Describe tooth morphology, including crowns and roots of the primary and permanent dentitions</li> </ul>
<b>2-12 b.</b> Oral Pathology	<b>DHAT 152</b> <i>Anatomy/Physiology/Pathology of the Head and Neck</i>	Oral medicine & oral pathology <ul style="list-style-type: none"> <li>Normal oral cavity and variations, and recognition of changes from normal in the oral tissues with emphasis on pediatric age group</li> <li>Recognition of common oral infections</li> <li>Classification, description, and identification of common oral ulcerations, such as traumatic andaphthus</li> </ul>
	<b>DHAT 201A, B, C, D</b>	<ul style="list-style-type: none"> <li>Application of Dental Therapy theory and principles through clinical scenarios</li> <li>Development of improved clinical reasoning skills</li> <li>Understanding of the limits of dental therapy, consultation and referral processes</li> <li>Evaluation and consultation with supervising dentist for traumatic injuries</li> <li>Advanced understanding of normal oral findings and presentations of the structures and tissues of the head and neck</li> <li>General knowledge of how to evaluate, describe and note findings in the region of the head and neck that vary from normal</li> <li>Consultation and referral processes for pathological findings outside the dental therapy scope of practice</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 b.</b> <b>Oral Pathology</b>	<b>DHAT 156</b> <i>Hygiene/Perio for Dental Therapy</i>	<ul style="list-style-type: none"> <li>• Explain the role of biofilm in periodontal disease</li> <li>• Explain the role of calculus in periodontal disease</li> <li>• Detect disease, supra and subgingival calculus</li> </ul>
<b>2-12 c.</b> <b>Oral Medicine</b>	<b>DHAT 102</b> <i>Intro to Dental Therapy II</i>	<ul style="list-style-type: none"> <li>• Have a basic understanding of the pharmacology of specific drugs in the following classes of medications               <ul style="list-style-type: none"> <li>• Antibiotics and Antimicrobials</li> <li>• Dental Analgesics</li> <li>• Antiemetics and Antiallergenics</li> </ul> </li> <li>• Recognize and report potential problems relating to medications to the supervising dentist</li> </ul>
	<b>DHAT 135</b> <i>Advanced Diagnosis and Treatment Plan I</i>	Recognition and management of medical emergencies in the dental care environment
	<b>DHAT 235</b> <i>Advanced Diagnosis and Treatment Plan II</i>	<ul style="list-style-type: none"> <li>• Have knowledge and skills required to collect diagnostic data and to prioritize patient needs based on caries risk assessments, medical and pharmacological considerations.</li> <li>• Be able to develop and provide a tailored oral health program based on the individual knowledge and practices including</li> <li>• Have a basic understanding of the pharmacology of specific drugs in the following classes of medications               <ul style="list-style-type: none"> <li>• Antibiotics and Antimicrobials</li> <li>• Dental Analgesics</li> <li>• Antiemetics and Antiallergenics</li> </ul> </li> <li>• To recognize and report potential problems relating to medical conditions and medications to the supervising dentist</li> </ul>
<b>2-12 d.</b> <b>Radiology</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	<ul style="list-style-type: none"> <li>• Competence at taking and processing the various film views used in general dental practice</li> <li>• Ability to identify anatomical features and interpreting common pathology relative to oral radiology</li> <li>• Understanding of radiographic techniques to include hazards and regulation</li> <li>• Assessment of image quality and use alternative imaging techniques</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 e.</b> <b>Periodontology</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	Introduction to periodontal disease process
	<b>DHAT 156</b> <i>Hygiene/Perio for Dental Therapy</i>	<ul style="list-style-type: none"> <li>• Explain the role of biofilm in periodontal disease</li> <li>• Explain the role of calculus in periodontal disease</li> <li>• Detect disease, supra and subgingival calculus</li> <li>• Relate Community Periodontal Index of Treatment Needs (CPITN) scores to a need for potential periodontal treatment</li> <li>• Recommend effective toothpastes, mouth rinses and oral hygiene aids to patients</li> <li>• Motivate patients to improve plaque removal and periodontal health</li> <li>• Identify who is at risk for periodontal breakdown</li> </ul>
<b>2-12 f.</b> <b>Cariology</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	Introduction to caries diseases process
	<b>DHAT 125 A, B</b>	<ul style="list-style-type: none"> <li>• Understand the principles of cavity design in the primary and permanent dentition</li> <li>• Understand the principles of pulp protection for lesions in the primary and permanent dentitions</li> <li>• Describe the management and treatment options available for carious lesions in the primary and permanent dentitions</li> <li>• Describe the principles and techniques for assessing pulp vitality and management of pulp exposure</li> </ul>
	<b>DHAT 154</b> <i>Cariology and Minimally Invasive Dentistry</i>	<ul style="list-style-type: none"> <li>• List the foods that are healthy for teeth and periodontal structures and those that are unhealthy</li> <li>• Explain demineralization and remineralization of tooth structure</li> <li>• Obtain skill in dental sealant placement and ITR /ART</li> <li>• Compare the epidemiology of dental caries among Alaska Native children and adolescents compared with children and adolescents of the same age in other parts of the United States</li> <li>• Describe the factors that determine whether a tooth should be sealed or treated operatively</li> <li>• Discuss the role of fluoride alternatives, such as Xylitol, Povidone-Iodine, and Chlorhexidine</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<p><b>2-12 g.</b>  <b>Atraumatic Restorative Treatment (ART)</b></p>	<p><b>DHAT 125 B</b>  <i>Operative Dental Therapy Mod B</i></p>	<ul style="list-style-type: none"> <li>• Understand the progression of dentinal caries from bacterial invasion through demineralization and frank cavitation</li> <li>• Describe the traditional approach to cavity preparation and compare it to the biological approach to cavity preparation</li> <li>• Describe the differences between application of glass-ionomer sealants using the ART approach and the traditional approach</li> <li>• Understand the principles and properties of adhesive restorative materials that enable minimally invasive cavity preparations, including glass-ionomers and chemically cured composite resins</li> <li>• List the instrumentation and materials required for the ART approach and discuss the function of each</li> <li>• Understand and discuss selection of appropriate cases for the ART procedure</li> <li>• Provide a step-by-step discussion of the ART procedure</li> <li>• List the primary reasons ART restorations fail</li> </ul>
<p><b>2-12 h.</b>  <b>Operative Dentistry</b></p>	<p><b>DHAT 125 A, B</b>  <i>Operative Dental Therapy Mod A, B</i></p>	<ul style="list-style-type: none"> <li>• List the classifications of cavity preparation design</li> <li>• Understand the principles of cavity design in the primary and permanent dentition</li> <li>• Understand the principles of cavity design for the preformed stainless steel crown procedure</li> <li>• Understand the principles of pulp protection for lesions in the primary and permanent dentitions</li> <li>• Describe the management and treatment options available for carious lesions in the primary and permanent dentitions</li> <li>• Describe the principles and techniques for assessing pulp vitality and management of pulp exposure</li> </ul>
	<p><b>DHAT 153</b>  <i>Basic Restorative Function</i></p>	<ul style="list-style-type: none"> <li>• Tooth Restoration <ul style="list-style-type: none"> <li>• Perform a range of restorative procedures, including placement of amalgam and composite restorations in both primary and permanent dentitions</li> <li>• List and describe the classification of cavity preparations</li> <li>• Describe the basic principles of cavity preparation design including the protection of the pulp for lesions in the permanent and primary dentitions in relation to tooth morphology</li> </ul> </li> <li>• Dental Biomaterials Science <ul style="list-style-type: none"> <li>• Demonstrate the appropriate selection of the dental biomaterials used in the basic restoration of primary and permanent teeth</li> <li>• Describe the limitations of restorative dental biomaterials</li> </ul> </li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 i.</b> <b>Pain Management</b>	<b>DHAT 155</b> <i>Local Anesthesia</i>	<ul style="list-style-type: none"> <li>• Describe basic neurophysiology relating to local anesthesia, including fundamentals of impulse generation and transmission, mode and site of action of local anesthetics</li> <li>• Describe the basic kinetics of local anesthetic onset and duration of action</li> <li>• List the causes of failure to achieve profound anesthesia</li> <li>• Describe the basic pharmacology of local anesthetics used in dentistry</li> <li>• Demonstrate use of local anesthetic Armamentarium</li> <li>• Describe the clinical signs and symptoms of complications to local anesthetic agents</li> </ul>
	<b>DHAT 222</b> <i>Pharmacology</i>	<ul style="list-style-type: none"> <li>• Have a basic understanding of the pharmacology of specific drugs in the following classes of medications               <ul style="list-style-type: none"> <li>• Antibiotics and Antimicrobials</li> <li>• Dental Analgesics</li> <li>• Antiemetics and Antiallergenics</li> </ul> </li> </ul>
<b>2-12 j.</b> Dental Materials	<b>DHAT 153</b> <i>Basic Restorative Function</i>	<ul style="list-style-type: none"> <li>• Dental Biomaterials Science               <ul style="list-style-type: none"> <li>• Demonstrate the appropriate selection of the dental biomaterials used in the basic restoration of primary and permanent teeth</li> <li>• Describe the limitations of restorative dental biomaterials</li> </ul> </li> </ul>
<b>2-12 k.</b> <b>Dental Disease Etiology and Epidemiology</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	<ul style="list-style-type: none"> <li>• Introduction to caries diseases process</li> <li>• Introduction to periodontal disease process</li> <li>• Understanding of theory of oral health promotion and disease prevention</li> <li>• Understanding of effective use of and issues related to fluoride</li> <li>• Understanding of basic tooth morphology and how this effects caries susceptibility</li> </ul>
	<b>DHAT 135</b> <i>Advanced Diagnosis and Treatment Plan I</i>	<ul style="list-style-type: none"> <li>• Have knowledge on performing caries risk assessments for patients of all ages</li> <li>• Be able to develop and provide a tailored oral health program based on the individual knowledge and practices</li> </ul>
	<b>DHAT 131</b> <i>Community Oral Health Education I</i>	<ul style="list-style-type: none"> <li>• Complete an oral health needs assessment of an Alaska Native community</li> <li>• Understand the rationale behind planning a comprehensive prevention program</li> </ul>
	<b>DHAT 156</b> <i>Hygiene/Perio for Dental Therapy</i>	<ul style="list-style-type: none"> <li>• Identify who is at risk for periodontal breakdown</li> <li>• Relate Community Periodontal Index of Treatment Needs (CPITN) scores to a need for potential periodontal treatment.</li> </ul>
<b>2-12 k.</b> <b>Dental Disease Etiology and Epidemiology</b>	<b>DHAT 231 &amp; 232</b> <i>Community Oral Health Education II &amp; III</i>	<ul style="list-style-type: none"> <li>• Understand the terms epidemiology and etiology including how they apply to public health dentistry</li> </ul>



CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 I.</b> <b>Preventive Counseling and Health Promotion</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	<ul style="list-style-type: none"> <li>• Understanding the makeup of the dental health care team and workforce models</li> <li>• Understanding of theory of oral health promotion and disease prevention</li> <li>• Understanding of effective use of and issues related to fluoride</li> </ul>
	<b>DHAT 135</b> <i>Advanced Diagnosis and Treatment Plan I</i>	<ul style="list-style-type: none"> <li>• Be able to develop and provide a tailored oral health program based on the individual knowledge and practices</li> <li>• Be able to recognize and implement the need to modify the proposed treatment plan based on behavioral and psychological variables</li> <li>• Be able to present the treatment plan to the patient and/or caregiver and answer questions and concerns</li> </ul>
	<b>DHAT 141</b> <i>Behavioral Health Sciences I – Oral Health Education I</i>	<ul style="list-style-type: none"> <li>• Definition of preventive dentistry</li> <li>• Introduction to caries diseases process</li> <li>• Introduction to disease prevention strategies used when accessing patients’ dental needs and providing patient education</li> <li>• Understanding of the concept of dental public health and how to apply the principles related to public health dentistry</li> <li>• Introduction to periodontal disease process</li> <li>• Introduction to dental disease prevention interventions and services               <ul style="list-style-type: none"> <li>• Fluoride and other topical agents</li> <li>• Caries control</li> <li>• Sealants</li> <li>• Disclosing and plaque removal</li> </ul> </li> </ul>
	<b>DHAT 156</b> <i>Hygiene/Perio for Dental Therapy</i>	<ul style="list-style-type: none"> <li>• Explain the role of biofilm in periodontal disease</li> <li>• Explain the role of calculus in periodontal disease</li> <li>• Detect disease, supra and subgingival calculus.</li> <li>• Relate Community Periodontal Index of Treatment Needs (CPITN) scores to a need for potential periodontal treatment.</li> <li>• Recommend effective toothpastes, mouth rinses and oral hygiene aids to patients.</li> <li>• Motivate patients to improve plaque removal and periodontal health.</li> <li>• Identify who is at risk for periodontal breakdown.</li> </ul>
<b>2-12 I.</b> <b>Preventive Counseling and Health Promotion</b>	<b>DHAT 242</b> <i>Behavioral Health Sciences II- Oral Health Promotion II</i>	<ul style="list-style-type: none"> <li>• Introduction to disease prevention strategies used when accessing patients’ dental needs and providing patient education</li> <li>• Theory of oral health promotion and disease prevention               <ul style="list-style-type: none"> <li>• Evidence-based approach to treatment with regard to advice and information</li> </ul> </li> <li>• Understanding of oral hygiene instruction techniques</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 m.</b> <b>Patient Mangement</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	<ul style="list-style-type: none"> <li>• Introduction of behavior management techniques</li> <li>• Introduction to the motivational interview technique</li> </ul>
	<b>DHAT 135</b> <i>Advanced Diagnosis and Treatment Plan I</i>	<ul style="list-style-type: none"> <li>• Be able to develop and provide a tailored oral health program based on the individual knowledge and practices</li> <li>• Be able to recognize and implement the need to modify the proposed treatment plan based on behavioral and psychological variables</li> </ul>
	<b>DHAT 241</b> <i>Behavioral Science II, Oral Health Education II</i>	<ul style="list-style-type: none"> <li>• Understanding and application of motivational interview technique</li> <li>• Understanding and application of behavior modification techniques for all ages</li> <li>• Management of fear and anxiety in diverse patient care settings</li> </ul>
<b>2-12 n.</b> <b>Pediatric Dentistry</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	<p>For all ages of patients:</p> <ul style="list-style-type: none"> <li>• Introduction to caries diseases process</li> <li>• Introduction to periodontal disease process</li> <li>• Understanding of theory of oral health promotion and disease prevention</li> <li>• Understanding of effective use of and issues related to fluoride</li> <li>• Understanding of basic tooth morphology and how this effects caries susceptibility</li> <li>• Understanding the makeup of the dental health care team and workforce models</li> <li>• Introduction of behavior management techniques</li> <li>• Introduction to the motivational interview technique</li> <li>• Understanding of moisture Control measures for dentistry</li> <li>• Understanding of matrix systems for restorative dentistry</li> <li>• Proficiency in use of dental instruments and four handed instrument transfer</li> <li>• Taking impressions for study casts</li> <li>• Competence at taking and processing the various film views used in general dental practice</li> <li>• Ability to identify anatomical features and interpreting common pathology relative to oral radiology</li> <li>• Understanding of radiographic techniques to include hazards and regulation</li> <li>• Assessment of image quality and use alternative imaging techniques</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 n.</b> <b>Pediatric Dentistry</b>	<b>DHAT 102</b> <i>Intro to Dental Therapy II</i>	<ul style="list-style-type: none"> <li>• Have a basic understanding for all ages of patients of the pharmacology of specific drugs in the following classes of medications               <ul style="list-style-type: none"> <li>• Antibiotics and Antimicrobials</li> <li>• Dental Analgesics</li> <li>• Antiemetics and Antiallergenics</li> </ul> </li> </ul>
	<b>DHAT 125A, B</b> <i>Operative Dental Therapy Mod A, B</i>	<ul style="list-style-type: none"> <li>• This course provides the theoretical background for the pre-clinical operative technique course in the primary and adult dentitions.</li> </ul>
	<b>DHAT 135</b> <i>Advanced Diagnosis and Treatment Plan I</i>	<ul style="list-style-type: none"> <li>• Be able to recognize and implement the need to modify the proposed treatment plan based on special circumstances related to pediatric and geriatric patient presentations</li> <li>• Have knowledge and skills required to collect diagnostic data, including               <ul style="list-style-type: none"> <li>• Medical and dental histories</li> <li>• Behavioral and psychological status</li> <li>• Dental health assessment</li> <li>• Pediatric considerations</li> <li>• Geriatric considerations</li> </ul> </li> </ul>
	<b>DHAT 152</b> <i>Anatomy/Physiology/Pathology of the Head and Neck</i>	<p>Oral anatomy</p> <ul style="list-style-type: none"> <li>• General knowledge of the development and histology of the head and neck from conception (embryology) to old age</li> </ul> <p>Dental anatomy</p> <ul style="list-style-type: none"> <li>• Knowledge of primary and permanent teeth, including:               <ul style="list-style-type: none"> <li>• Morphology</li> <li>• Function</li> <li>• Eruption patterns and times</li> <li>• Development and histology</li> <li>• Identification</li> </ul> </li> <li>• Etiology and development of dental anomalies in tooth numbers, size, structure, shape, and color</li> </ul> <p>Oral medicine &amp; oral pathology</p> <ul style="list-style-type: none"> <li>• Normal oral cavity and variations, and recognition of changes from normal in the oral tissues with emphasis on pediatric age group</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 n.</b> <b>Pediatric Dentistry</b>	<b>DHAT 153</b>	<ul style="list-style-type: none"> <li>• Tooth Morphology               <ul style="list-style-type: none"> <li>• Describe tooth morphology, including crowns and roots of the primary and permanent dentitions</li> </ul> </li> <li>• Tooth Restoration               <ul style="list-style-type: none"> <li>• Perform a range of restorative procedures, including placement of amalgam and composite restorations in both primary and permanent dentitions</li> <li>• List and describe the classification of cavity preparations</li> <li>• Describe the basic principles of cavity preparation design including the protection of the pulp for lesions in the permanent and primary dentitions in relation to tooth morphology</li> </ul> </li> <li>• Dental Biomaterials Science               <ul style="list-style-type: none"> <li>• Demonstrate the appropriate selection of the dental biomaterials used in the basic restoration of primary and permanent teeth</li> </ul> </li> </ul>
	<b>DHAT 241</b> <i>Behavioral Science II, Oral Health Education II</i>	Course Objectives: For patients of all ages including pediatric, geriatric and special needs: <ul style="list-style-type: none"> <li>• Introduction to disease prevention strategies used when accessing patients' dental needs and providing patient education</li> <li>• Theory of oral health promotion and disease prevention               <ul style="list-style-type: none"> <li>• Evidence-based approach to treatment with regard to advice and information</li> </ul> </li> <li>• Understanding of oral hygiene instruction techniques</li> <li>• Understanding and application of motivational interview technique</li> <li>• Understanding and application of behavior modification techniques for all ages</li> <li>• Management of fear and anxiety in diverse patient care settings</li> </ul>
<b>2-12 o.</b> <b>Geriatric Dentistry</b>	<i>See all references for n. Pediatric dentistry</i>	
<b>2-12 p.</b> <b>Medical and Dental Emergencies</b>	<b>DHAT 135</b> <i>Advanced Diagnosis and Treatment Plan I</i>	<ul style="list-style-type: none"> <li>• Recognition and management of medical emergencies in the dental care environment</li> </ul>
	<b>DHAT 155</b> <i>Local Anesthesia</i>	<ul style="list-style-type: none"> <li>• Describe the clinical signs and symptoms of complications to local anesthetic agents</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 p.</b> <b>Medical and Dental Emergencies</b>	<b>DHAT 201A, B, C, D</b>	<ul style="list-style-type: none"> <li>• Application of Dental Therapy theory and principles through clinical scenarios</li> <li>• Development of improved clinical reasoning skills</li> <li>• Understanding of the limits of dental therapy, consultation and referral processes.</li> <li>• Evaluation and consultation with supervising dentist for traumatic injuries</li> <li>• Have knowledge of the internal anatomy of permanent anterior teeth</li> <li>• Have knowledge of the principles of treatment for permanent teeth traumatized by:               <ul style="list-style-type: none"> <li>• Subluxation</li> <li>• Fractures in the dentin</li> <li>• Fractures involving the pulp</li> <li>• Avulsion</li> </ul> </li> <li>• Demonstrate laboratory competency in performing appropriate emergency treatment for patients with traumatized teeth including, but not limited to, temporary and permanent restoration of non-pulpally involved teeth, stabilization of subluxated teeth, open and broach procedures, and re-placement of avulsed teeth.</li> </ul>
<b>2-12 q.</b> <b>Oral Surgery</b>	<b>DHAT 135</b> <i>Advanced Diagnosis and Treatment Plan I</i>	<ul style="list-style-type: none"> <li>• Theory and principles of tooth extraction and oral surgery</li> </ul>
<b>2-12 r.</b> <b>Prosthodontics</b>	<b>DHAT 101</b> <i>Intro to Dental Therapy I</i>	<ul style="list-style-type: none"> <li>• Taking impressions for study casts</li> <li>• Introduction to prosthodontics</li> </ul>
	<b>DHAT 112</b> <i>Dental Therapy, Lab II</i>	<ul style="list-style-type: none"> <li>• Hands-on learning of resin base dentures</li> </ul>
<b>2-12 s.</b> <b>Infection and Hazard Control Management, Including Provision of Oral Health Care Services to Patients with Blood Borne Infectious Diseases</b>	<b>DHAT 120, 121</b> <i>Infection Control</i>	<ul style="list-style-type: none"> <li>• Description of the purpose and scope of OSHA's Bloodborne Pathogens Standard and its importance to dental employees</li> <li>• Definition, description, application, and differentiation between sterilization and disinfection as best practices essential to maintaining a safe environment.</li> <li>• Description of physical, chemical, and biological hazards in the dental office and understand ways to reduce them.</li> <li>• Description and implementation of current ADA, CDC, and OSAP recommendations on dental office waterline</li> <li>• Demonstration of proper hand hygiene techniques, appropriate use of infection control equipment, and use of personal protective equipment.</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-12 S.</b> Infection and Hazard Control Management, Including Provision of Oral Health Care Services to Patients with Blood Borne Infectious Diseases	<b>DHAT 122, 123</b> <i>Infection Control</i>	<ul style="list-style-type: none"> <li>Describe the stages of processing contaminated instruments and how these instruments become re-sterilized</li> <li>Describe physical, chemical, and biological hazards in the dental office and understand ways to reduce them</li> <li>Describe current ADA, CDC, and OSAP recommendations on dental office waterline safety. Employ techniques to reduce waterline biofilms</li> <li>Demonstrate placing and removing protective barriers</li> <li>Demonstrate proper hand hygiene techniques</li> <li>Demonstrate all infection control equipment use and maintenance and all stages of processing contaminated instruments</li> <li>Demonstrate use of personal protective equipment safely within a dental office and to prevent the spread of microbial diseases.</li> </ul>

## Curriculum Standards: **2-13**

Graduates must be competent in managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment.

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-13</b>	<b>DHAT 131</b> <i>Community Oral Health Education I</i>	<ul style="list-style-type: none"> <li>Understand the rationale behind planning a comprehensive prevention program</li> <li>Understand the elements of the POARE format of prevention planning with particular emphasis on development of the problem statement and the evaluation</li> <li>Introduction of skills needed to successfully communicate and work in diverse settings and cultures</li> <li>Understand the components of culturally competency and culturally appropriate care</li> <li>Understand the components of SMART objectives as they relate to an indigenous culture</li> <li>Complete an oral health needs assessment of an Alaska Native community</li> <li>Develop a culturally relevant community oral health promotion project based on an initial needs assessment, using the POARE format.</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-13</b>	<b>DHAT 231, 232</b> <i>Community Oral Health Education II, III</i>	<ul style="list-style-type: none"> <li>• Understand the terms epidemiology and etiology including how they apply to public health dentistry</li> <li>• Plan a comprehensive prevention program for an Alaska Native community</li> <li>• Apply the elements of the POARE format of prevention planning with particular emphasis on development of the problem statement and the evaluation</li> <li>• Apply skills needed to successfully communicate and work in diverse settings and cultures</li> <li>• Integrate the components of culturally competency and culturally appropriate care into dental therapy practice</li> <li>• Apply the components of SMART objectives as they relate to an indigenous culture.</li> <li>• Complete an oral health needs assessment of an Alaska Native community</li> <li>• Implement a culturally appropriate community oral health promotion project based on an initial needs assessment, using the POARE format.</li> </ul>

## Curriculum Standards: **2-14**

**Graduates must be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care.**

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-14</b>	<b>DHAT 101</b> <i>Introduction to Dental Therapy I</i>	<ul style="list-style-type: none"> <li>• Understanding the makeup of the dental health care team and workforce models</li> <li>• Including effective communication and teamwork strategies</li> <li>• Recognition of when consultation or referral is needed</li> </ul>
	<b>DHAT 135</b> <i>Diagnosis and Treatment Plan I</i>	
	<b>DHAT 201A, 201B, 201C, 201D</b> <i>Advanced Dental Therapy</i>	<ul style="list-style-type: none"> <li>• Understanding of the limits of dental therapy, consultation and referral processes.</li> <li>• Evaluation and consultation with supervising dentist for traumatic injuries</li> <li>• Evaluation and consultation with supervising dentist for traumatic injuries</li> </ul>
	<b>DHAT 211A, 211B, 211 C, 211D</b> <i>Advanced Dental Therapy Clinic</i>	

## Curriculum Standards: 2-15

Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
2-15	<b>DHAT 102</b> <i>Introduction to Dental Therapy II</i> <b>DHAT 112</b> <i>Dental Therapy Lab II</i> <b>DHAT 221</b> <i>Professional DHAT Practice I</i> <b>DHAT 222</b> <i>Professional Practice II;</i> <b>DHAT 201A, DHAT 201B, DHAT 201C, and DHAT 201D</b> <i>Advance Dental Therapy;</i> <b>DHAT 211A, DHAT 211B, DHAT 211C, and DHAT 211D</b> <i>Advance Dental Therapy Clinic</i>	<ul style="list-style-type: none"> <li>Define professionalism and ethics as they relate to the practice of the Dental Health Aide Therapist.</li> <li>Identify and discuss the importance of professional, ethical behavior.</li> <li>Understand why the application of professional behavior is recommended and expected.</li> <li>Demonstrate professional, ethical behavior in patient and community interactions.</li> </ul>

## Curriculum Standards: 2-16

Graduates must be competent in applying legal and regulatory concepts to the provision and/or support of oral health care services.

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
2-16	<b>DHAT 102</b> <i>Introduction to Dental Therapy II;</i> <b>DHAT 112</b> <i>Dental Therapy Lab II;</i> <b>DHAT 221</b> <i>Professional DHAT Practice I;</i> <b>DHAT 222</b> <i>Professional Practice II;</i> <b>DHAT 201A, DHAT 201B, DHAT 201C, and DHAT 201D</b> <i>Advance Dental Therapy;</i> <b>DHAT 211A, DHAT 211B, DHAT 211C, and DHAT 211D</b> <i>Advance Dental Therapy Clinic</i>	<ul style="list-style-type: none"> <li>Understand the legal and regulatory aspects of health care service provision including;             <ul style="list-style-type: none"> <li>Understanding of the federal authority for dental therapy practice in Alaska.</li> <li>Knowledge and understanding of the Community Health Aide Certification Board Standards and Procedures</li> <li>HIPPA, Patient Confidentiality, compliance, and risk management</li> </ul> </li> </ul>



## Curriculum Standards: 2-17

Graduates must be able to access, critically appraise, apply, and communicate information as it relates to providing evidence-based patient care within the scope of dental therapy practice.

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
2-17	<b>DHAT 111</b> <i>Dental Therapy Lab I;</i> <b>DHAT 112</b> <i>Dental Therapy Lab II</i>	<ul style="list-style-type: none"> <li>• Introduction to the concept and skill of critical self-evaluation</li> </ul>
	<b>DHAT 131</b> <i>Community Oral Health Education I</i>	<ul style="list-style-type: none"> <li>• Understand the rationale behind planning a comprehensive prevention program</li> <li>• Understand the elements of the POARE format of prevention planning with particular emphasis on development of the problem statement and the evaluation</li> <li>• Introduction of skills needed to successfully communicate and work in diverse settings and cultures</li> <li>• Understand the components of culturally competency and culturally appropriate care</li> <li>• Understand the components of SMART objectives as they relate to an indigenous culture</li> <li>• Complete an oral health needs assessment of an Alaska Native community</li> <li>• Develop a culturally relevant community oral health promotion project based on an initial needs assessment, using the POARE format.</li> </ul>
	<b>DHAT 201A, DHAT 201B, DHAT 201C, and DHAT 201D</b> <i>Advanced Dental Therapy</i>	<ul style="list-style-type: none"> <li>• Application of Dental Therapy theory and principles through clinical scenarios</li> <li>• Development of improved clinical reasoning skills</li> <li>• Understanding of the limits of dental therapy, consultation and referral processes.</li> <li>• Evaluation and consultation with supervising dentist for traumatic injuries</li> </ul>
	<b>DHAT 141</b> <i>Behavioral Sciences I, Oral Health Education I;</i> <b>DHAT 241</b> <i>Behavioral Sciences II, Oral Health Education II</i>	<ul style="list-style-type: none"> <li>• Introduction to disease prevention strategies used when accessing patients' dental needs and providing patient education</li> <li>• Theory of oral health promotion and disease prevention               <ul style="list-style-type: none"> <li>• Evidence-based approach to treatment with regard to advice and information</li> </ul> </li> <li>• Understanding of oral hygiene instruction techniques</li> </ul>

## Curriculum Standards: 2-18

The program must ensure the availability of adequate patient experiences that afford all students the opportunity to achieve its stated competencies within a reasonable time.

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
2-18	<p><b>DHAT 221</b> <i>Professional DHAT Practice I;</i></p> <p><b>DHAT 222</b> <i>Professional Practice II;</i></p> <p><b>DHAT 201A, DHAT 201B, DHAT 201C, and DHAT 201D</b> <i>Advance Dental Therapy;</i></p> <p><b>DHAT 211A, DHAT 211B, DHAT 211C, and DHAT 211D</b> <i>Advance Dental Therapy Clinic</i></p>	<p>This course runs each week, with the exception of the out of clinic rotations, of the Semester and involves the students providing direct patient care. There is a minimum of 1200 hours. Students either serve as the provider or assistant during the below time frames. For credit purposes, only 50% of the allocated time is counted based on average patient “no-shows.”</p> <p>Week Patient Encounters</p> <ul style="list-style-type: none"> <li>Monday 10 AM, 1 PM, 3 PM</li> <li>Tuesday 10 AM, 1 PM, 3 PM</li> <li>Wednesday 10 AM, 1 PM, 3 PM</li> <li>Thursday 10 AM, 1 PM, 3 PM</li> <li>Friday 10 AM, 1 PM, 3 PM</li> </ul>

## Curriculum Standards: 2-19

Graduates must be competent in providing oral health care within the scope of dental therapy to patients in all stages of life.

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
2-19	<p><b>DHAT 101</b> <i>Introduction to Dental Therapy I;</i></p> <p><b>DHAT 102</b> <i>Introduction to Dental Therapy II;</i></p> <p><b>DHAT 125A</b> <i>Operative Dental Therapy;</i></p> <p><b>DHAT 125B</b> <i>Operative Dental Therapy;</i></p> <p><b>DHAT 141</b> <i>Behavioral Sciences: Oral Health Education I;</i></p> <p><b>DHAT 241</b> <i>Behavioral Sciences: Oral Health Education II</i></p>	<ul style="list-style-type: none"> <li>Understand the principles of cavity design in the primary and permanent dentition</li> <li>Understand the principles of cavity design for the preformed stainless steel crown procedure</li> <li>Understand the principles of pulp protection for lesions in the primary and permanent dentitions</li> <li>Describe the management and treatment options available for carious lesions in the primary and permanent dentitions</li> </ul>

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-19</b>	<b>DHAT 201A, DHAT 201B, DHAT 201C, DHAT 201D</b> <i>Advanced Dental Therapy</i>	Application of Dental Therapy theory and principles through clinical scenarios addressing patients in all stages of life
	<b>DHAT 235</b> <i>Advanced Diagnosis and Treatment Planning II</i>	Have knowledge and skills required to collect diagnostic data and to prioritize patient needs based on caries risk assessments, medical and pharmacological considerations throughout the stages of a patient's life.
	<b>DHAT 211A, DHAT 211B, DHAT 211C, DHAT 211D</b> <i>Advanced Dental Therapy Clinic</i>	Understand and competently provide the dental therapy scope of care across all stages of patient life

## Curriculum Standards: **2-20**

At a minimum, graduates must be competent in providing oral health care within the scope of dental therapy practice with supervision as defined by the state practice acts, including:

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-20 a.</b> Identify oral and systemic conditions requiring evaluation and/or treatment by dentists, physicians or other healthcare providers, and manage referrals	<b>DHAT 201A, B, C, D</b> <i>Advanced Dental Therapy, Mod A, B, C, D</i>	<ul style="list-style-type: none"> <li>Understanding of the limits of dental therapy, consultation and referral processes.</li> <li>Evaluation and consultation with supervising dentist for traumatic injuries</li> <li>Understanding of normal oral findings and presentations of the structures and tissues of the head and neck</li> <li>General knowledge of how to evaluate, describe and note findings in the region of the head and neck that vary from normal</li> <li>Consultation and referral processes for pathological findings outside the dental therapy scope of practice</li> </ul>
	<b>DHAT 222</b> <i>Pharmacology</i>	<ul style="list-style-type: none"> <li>To recognize and report potential problems relating to medications to the supervising dentist</li> </ul>
	<b>DHAT 235</b> <i>Advanced Diagnosis and Treatment planning II</i>	<ul style="list-style-type: none"> <li>To recognize and report potential problems relating to medical conditions and medications to the supervising dentist</li> </ul>
<b>2-20 b.</b> Comprehensive charting of the oral cavity	<b>DHAT 135</b> <i>Diagnosis and Treatment Planning I</i>	<ul style="list-style-type: none"> <li>Have knowledge and skills required to collect diagnostic data, including             <ul style="list-style-type: none"> <li>Comprehensive charting of the oral cavity</li> </ul> </li> </ul>

CODA Relevant Standards	Iisagvik Course number	Iisagvik Learning outcomes
<b>2-20 c.</b> Oral health instruction and disease prevention education, including nutritional counseling and dietary analysis	<b>DHAT 101</b> <i>Introduction to Dental Therapy I</i>	Understanding and skill provide oral health instruction and disease prevention instruction, including nutritional counseling and dietary analysis
<b>2-20 d.</b> Exposing radiographic images	<b>DHAT 101</b> <i>Introduction to Dental Therapy I</i>	<ul style="list-style-type: none"> <li>• Competence at taking and processing the various film views used in general dental practice</li> <li>• Ability to identify anatomical features and interpreting common pathology relative to oral radiology</li> <li>• Understanding of radiographic techniques to include hazards and regulation</li> <li>• Assessment of image quality and use alternative imaging techniques</li> </ul>
<b>2-20 e.</b> Dental prophylaxis including sub-gingival scaling and/or polishing procedures	<b>DHAT 156</b> <i>Hygiene and Periodontology for Dental Therapy</i>	Understanding and skill provide oral health instruction and disease prevention instruction, including nutritional counseling and dietary analysis
<b>2-20 f.</b> Dispensing and administering via the oral and/or topical route non-narcotic analgesics, anti-inflammatory, and antibiotic medications as prescribed by a licensed healthcare provider	<b>DHAT 222</b> <i>Pharmacology</i>	Competence at dispensing and administering via the oral and/or topical route non-narcotic analgesics, anti-inflammatory, and antibiotic medications as prescribed by a license healthcare provider including appropriate patient education related to the medication
<b>2-20 g.</b> Applying topical preventive or prophylactic agents (i.e. fluoride), including fluoride varnish, antimicrobial agents, and pit and fissure sealants	<b>DHAT 141</b> <i>Behavior Sciences I, Oral Health Education I</i>	<ul style="list-style-type: none"> <li>• Introduction and competency in dental disease prevention interventions and services               <ul style="list-style-type: none"> <li>• Fluoride and other topical agents</li> <li>• Caries control</li> <li>• Sealants</li> <li>• Disclosing and plaque removal</li> </ul> </li> </ul>
<b>2-20 h.</b> Pulp vitality testing	<b>DHAT 125 A &amp; B</b> <i>Operative Dental Therapy, Mod A &amp; B</i>	Describe the principles and techniques for assessing pulp vitality and management of pulp exposure

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-20 i.</b> Applying desensitizing medication or resin	<b>DHAT 153</b> <i>Basic Restorative Function</i>	Competency in applying desensitizing medicaments, linings and other pulp protection biomaterials available and factors influencing their selection
<b>2-20 j.</b> Fabricating athletic mouthguards	<b>DHAT 101</b> <i>Introduction to Dental Therapy I</i>	Fabrication of athletic mouthguards
<b>2-20 k.</b> Changing periodontal dressings	<b>DHAT 156</b> <i>Hygiene and Periodontology for Dental Therapy</i>	Knowledge and skill of changing periodontal dressings
<b>2-20 l.</b> Administering local anesthetic	<b>DHAT 155</b> <i>Local Anesthetic</i>	Demonstrate the use of local anesthetics to adequately anesthetize the oral structures such that comfortable treatment can be provided in the dental therapy scope of practice
<b>2-20 m.</b> Simple extraction of erupted primary teeth	<b>DHAT 135</b> <i>Diagnosis and Treatment Planning I</i>	Theory and principles of tooth extraction and oral surgery
	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Apply dental therapy skills in a clinical site, including cavity preparations and restorations, preventive services and extractions of primary and permanent teeth
<b>2-20 n.</b> Emergency palliative treatment of dental pain limited to the procedures in this section	<b>DHAT 222</b> <i>Pharmacology</i>	<ul style="list-style-type: none"> <li>• Have a basic understanding of the pharmacology of specific drugs in the following classes of medications               <ul style="list-style-type: none"> <li>• Antibiotics and Antimicrobials</li> <li>• Dental Analgesics</li> <li>• Antiemetics and Antiallergenics</li> </ul> </li> <li>• To recognize and report potential problems relating to medications to the supervising dentist</li> <li>• Competence at dispensing and administering via the oral and/or topical route non-narcotic analgesics, anti-inflammatory, and antibiotic medications as prescribed by a license healthcare provider including appropriate patient education related to the medication</li> </ul>
	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Competence in providing urgent and emergent palliative treatment of dental pain and infection

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
<b>2-20 o.</b> Preparation and placement of direct restoration in primary and permanent teeth	<b>DHAT 125 A &amp; B</b> <i>Operative Dental Therapy, Mod A &amp; B;</i> <b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Apply dental therapy skills in a clinical site, including cavity preparations and restorations, preventive services and extractions of primary and permanent teeth
<b>2-20 p.</b> Fabrication and placement of single-tooth temporary crowns	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Demonstration of fabrication and placement of single-tooth temporary crowns
<b>2-20 q.</b> Preparation and placement of preformed crowns on primary teeth	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Demonstration of preparation and placement of preformed crowns on primary teeth
<b>2-20 r.</b> Indirect and direct pulp capping on permanent teeth	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Competence in performing indirect and direct pulp capping on permanent teeth, and indirect pulp capping on primary teeth
<b>2-20 s.</b> indirect pulp capping on primary teeth	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Competence in performing indirect and direct pulp capping on permanent teeth, and indirect pulp capping on primary teeth
<b>2-20 t.</b> Suture removal	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Demonstrate skill of suture removal, minor adjustments and repairs on removable prosthesis, removal of space maintainers
<b>2-20 u.</b> Minor adjustments and repairs on removable prostheses	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Demonstrate skill of suture removal, minor adjustments and repairs on removable prosthesis, removal of space maintainers
<b>2-20 v.</b> Removal of space maintainers	<b>DHAT 211A, B, C, D</b> <i>Advanced Dental Therapy Clinic, Mod A, B, C, D</i>	Demonstrate skill of suture removal, minor adjustments and repairs on removable prosthesis, removal of space maintainers

# Curriculum Standards: 2-23

Dental therapy education programs must have students engage in service learning experiences and/or community-based learning experiences.

CODA Relevant Standards	Ilisagvik Course number	Ilisagvik Learning outcomes
2-23	DHAT 131 <i>Community Oral Health Education I</i>	
	DHAT 242 & 243 <i>Community Clinical Rotations I &amp; II</i>	<ul style="list-style-type: none"><li>• Apply dental therapy skills in a remote clinical site</li><li>• Apply community prevention program practice to real life situations</li></ul>

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