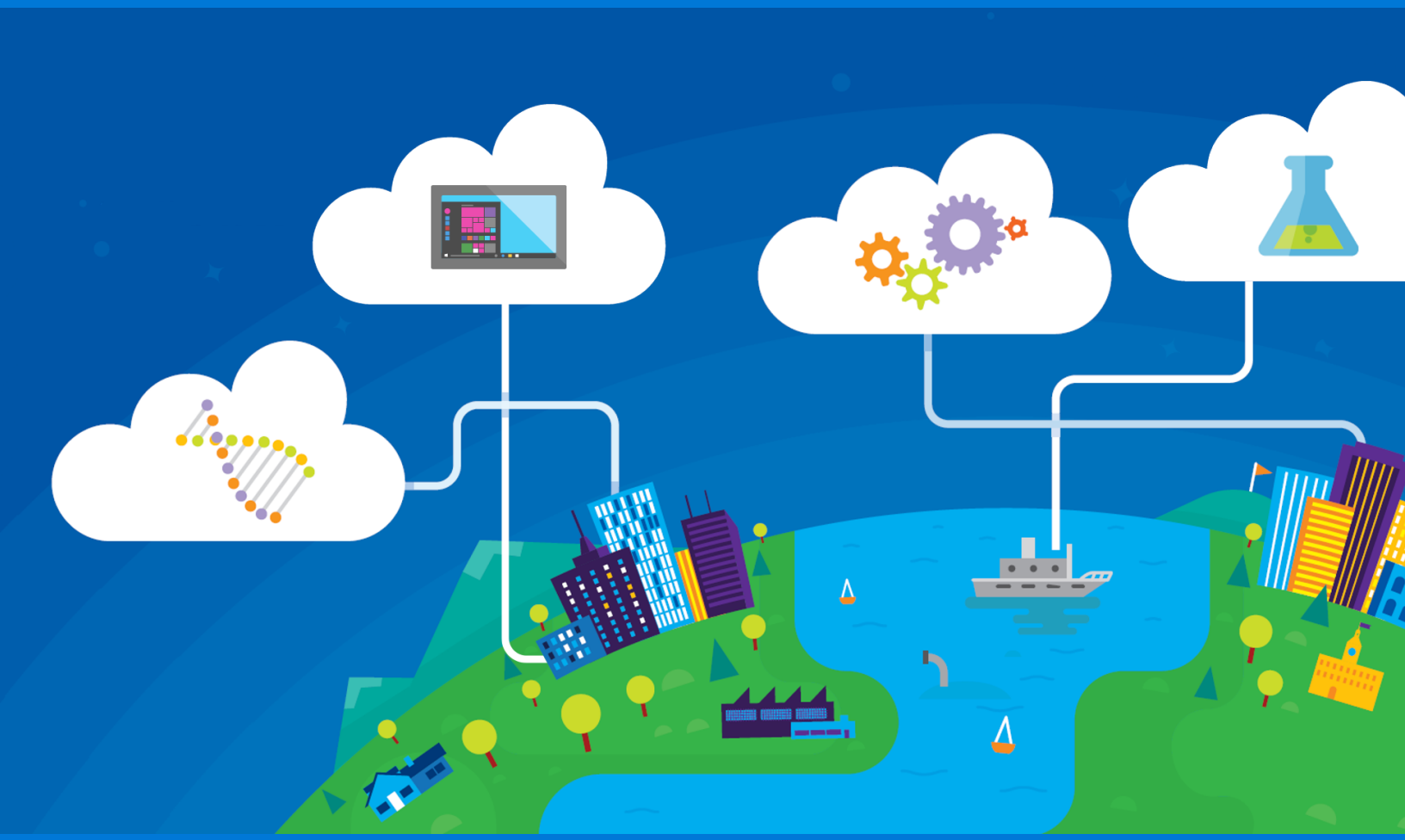
Microsoft



Microsoft Azure in Education

Microsoft Azure

Azure in education

Microsoft helps school leaders and decision makers, educators, and students solve a variety of challenges faced in education through Microsoft Azure and the cloud.

Azure for research staff

Azure for teaching staff

Azure for students

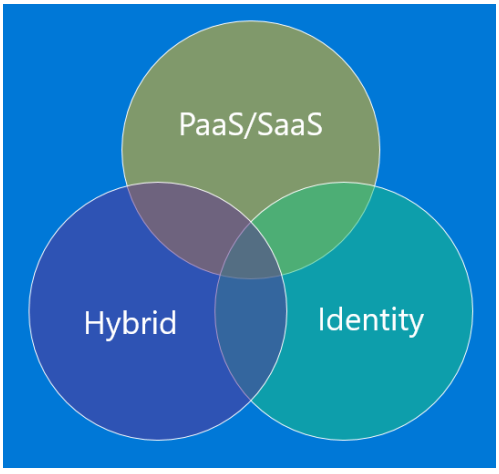
Azure for academic institutions

Azure is a powerful tool for research and education, and Microsoft provides a number of programs to meet the needs of academic institutions. Some of the more popular services in Azure for faculty include (click on each link to learn more):

- **Virtual Machines**: Run Windows or Linux virtual machines in the cloud
- **Mobile Services**: Includes features that accelerate the development of mobile applications
- **Media Services**: Create, manage, or distribute media
- **Cloud Services**: Build or extend existing enterprise applications
- **Big Data**: Process enormous amounts of data

Azure has some great features available for academic institutions to make the most of their education infrastructure:

- **PaaS/SaaS** – Predictive analytics; disaster recovery; and 360-degree data insights
- **Hybrid** – Single dashboard monitoring; connectivity to apps and devices across both public and private clouds; and both cloud and on premise backup solutions
- **Identity** – Single sign-on; rights management



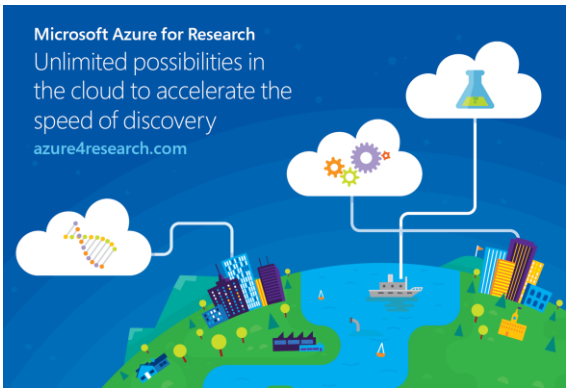
▶ **Learn more about Azure at the official Microsoft Azure website.**

Azure for research staff

Microsoft Research has a full portfolio for researchers including grants, training, and proposal resources. Training is available in the form of free, technical one-day training events that allow researchers and data scientists to go hands on with Azure services. In addition to the in-person training events, a number of online courses are available through Microsoft Virtual Academy that can get researchers up to speed quickly.

Microsoft Azure for Research

The Microsoft Azure for Research program helps researchers explore and experiment with Azure at scale. It provides awards, training, and technical resources to help you make the most of the cloud.



With Azure, researchers can access the cloud with a highly useful and accessible set of features including:

- **Agility** – on-demand with no queuing; high throughput computing to get results faster; and the ability to use it as overflow from on premise HPC clusters
- **Flexibility** – use Virtual Machines to match the job you need done exactly, multi-core, fast CPU with big memory, and be the administrator on your own machine
- **Scalability** – Azure for Research is massively scalable with no upfront investment.
  "The best thing about having your own cluster though, is of course no wait times in queues! [...] You are of course also admin on your cluster [...] I could organize my workflow and environment in a way that was right for me. [...] Azure for me was perfect. I could scale my compute capability with my current computational needs. "
  —Dr Simon O'Hanlon, Researcher, Imperial College London

Azure for teaching staff

If you're an educator teaching technology and you are looking for assistance in understanding the cloud and Microsoft Azure, or how to teach them in your classroom, Microsoft has a set of opportunities for you, from courseware to certifications.

Courseware

Microsoft provides a range of courseware and supporting materials to help you both learn about the cloud and teach it to your students. There are two primary locations for you to obtain some great materials for professional development and in the classroom:

Microsoft Imagine Academy
Our Microsoft Imagine Academy program gives institutions and educators easy access to digital curriculum and skills validation through certification for fundamental technology skills. This includes the Microsoft Technology Associate (MTA) certifications, one of which is Cloud Fundamentals. Designed to introduce the essential components of the cloud and Azure, the course is appropriate for aspiring developer and IT professional students.

Within the member portal of Microsoft Imagine Academy, educators can download and use a Microsoft Official Academic Curriculum full kit, including an exam preparation guide, a student textbook, and more.

Microsoft Virtual Academy
Microsoft Virtual Academy is designed for self-paced learning and delivers great introductory courses about Azure and the cloud. Here are some examples to get you started:

- Microsoft Azure Fundamentals
- Dev/Test in the Cloud

Certifications

One great way of ensuring your students have the skills they'll need to perform well after they leave school, is to validate their knowledge through industry-recognized certifications. Microsoft has a selection of certification exams, with accompanying courses and curriculum.

Microsoft Technology Associate (MTA) is an introductory Microsoft certification for people considering a career in technology. As mentioned above, the library of MTA exams includes Cloud Fundamentals, an introductory skills validation around cloud and Azure.

Microsoft Certified Professional (MCP) is a certification that validates technical expertise in a Microsoft product, technology, or solution. The certifications are industry-recognized and widely accepted as an indicator of technical topic area knowledge. If you have students who are advancing in their skill in computer science and technology and show a particular aptitude in the cloud, consider recommending the following Azure and cloud-based certifications. All are available at academic pricing to make them more accessible to you and your students.

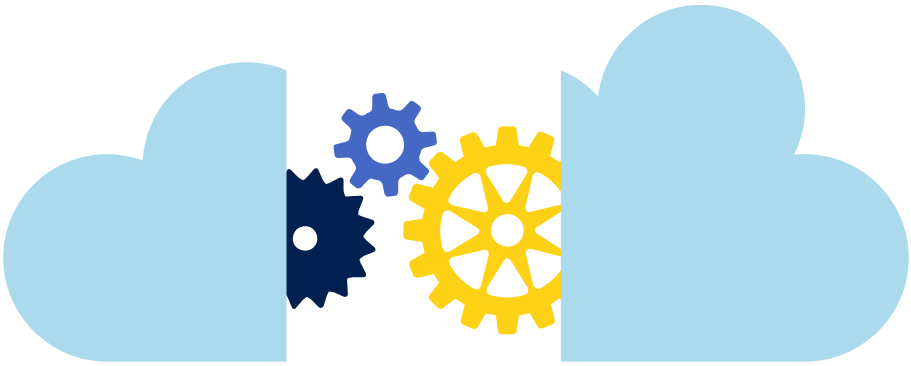
- 70-473 - Designing and Implementing Cloud Data Platform Solutions
- 70-487 - Developing Microsoft Azure and Web Services
- 70-532 - Developing Microsoft Azure Solutions
- 70-533 - Implementing Microsoft Azure Infrastructure Solutions
- 70-534 - Architecting Microsoft Azure Solutions

Azure teaching grant

Faculty in accredited universities may apply for a Microsoft Educator Grant to get access to Azure for use in the classroom for the educator and their students. The grant program includes:

- Faculty receive a 12 month, $250/month account
- Students each receive a 6 month, $100/month account

To receive a Microsoft Educator Grant, you must meet the eligibility requirements and submit an application including a course description, number of students in the class, and when the course will run.



Azure for students

A rapidly increasing proportion of the technology industry relies on the cloud for processing, accessibility, connectivity, and more. As a student, you can set yourself up for post-school success l, by getting skilled up with Microsoft Azure and being prepared for the needs of your future employers and entrepreneurship opportunities.

Courseware

Microsoft offers a vast array of free, self-paced video training through Microsoft Virtual Academy (MVA) on a range of topics. When it comes to the cloud, MVA has a number of courses to introduce you to the basic concepts of how the cloud works, what Azure is, and ways in which Azure benefit technologists. Additionally, MVA offers specific topics about how to design and implement Azure solutions and about how Azure can be used in certain situations. Here's a small selection to get you started:

- Microsoft Azure Fundamentals
- Dev/Test in the Cloud
- Azure Backend for Android & iOS apps
- Using Microsoft Azure Search

Certifications

Once you're up to speed with Azure, the best way you can prove your skill and understanding is through certification. Microsoft supports you through both introductory and comprehensive skills validation opportunities.

The Cloud Fundamentals Microsoft Technology Associate (MTA) certification is an essentials validation for the cloud and Azure. If you're considering a career in technology with a focus on the cloud, this certification is a great launching point. MTA exams are available and accessible with academic pricing.

As you advance in your learning and understanding of Azure, Microsoft Certified Professional (MCP) exams will give you an opportunity to test your skills at a deeper level and will provide you with an industry-recognized and accepted certification. Depending on your particular focus, Microsoft offers a number of MCP certifications in Azure and the cloud, all available with academic pricing:

- 70-473 - Designing and Implementing Cloud Data Platform Solutions
- 70-487 - Developing Microsoft Azure and Web Services
- 70-532 - Developing Microsoft Azure Solutions
- 70-533 - Implementing Microsoft Azure Infrastructure Solutions
- 70-534 - Architecting Microsoft Azure Solutions

Azure student pass

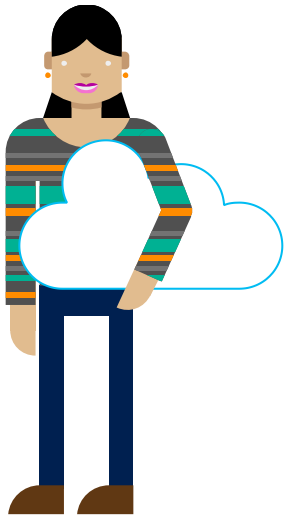
Students have access to Azure through two offers: through DreamSpark or through a classroom educator grant.

Any qualified student can sign up for a trial account through DreamSpark. At DreamSpark, students can access a library of software to help create and maintain technology. The Microsoft Azure for DreamSpark program gets you started with the services you need to develop in the cloud at no cost, particularly when paired with Visual Studio Community 2015.

With the DreamSpark offer, you get access to a subset of Azure services, but at no cost and with no commitment or time limit. Current services included are:

- **Notification Hubs** – enables you to send mobile push notifications to users
- **Mobile Apps** – cross-platform mobile apps with a cloud backend including authentication, social integration, and offline data sync
- **Azure App Service Web Apps** – build and deploy web apps using ASP.NET, Java, PHP, node.js, or Python and run popular web apps and CMS solutions
- **MySQL Database from ClearDB** – add the power of MySQL to web apps
- **SQL Database** – build secure and global SaaS applications
- **Visual Studio Application Insights** – deep diagnostics and performance data for app analysis and review
- **Visual Studio Team Services** – cloud-powered collaboration tools that work with your existing integrated development environment or editor

The other way students can get access to Azure is through their class. As seen above, eligible teaching staff at universities can apply for an educator grant to teach Azure in their class. With that grant comes a provision for the students participating to have their own Azure account with access to all services, not just the subset in the DreamSpark offer. While you get access to all services, there is a limit of $100/month of usage for a six month period. This offer is available through your faculty member if they received a grant.



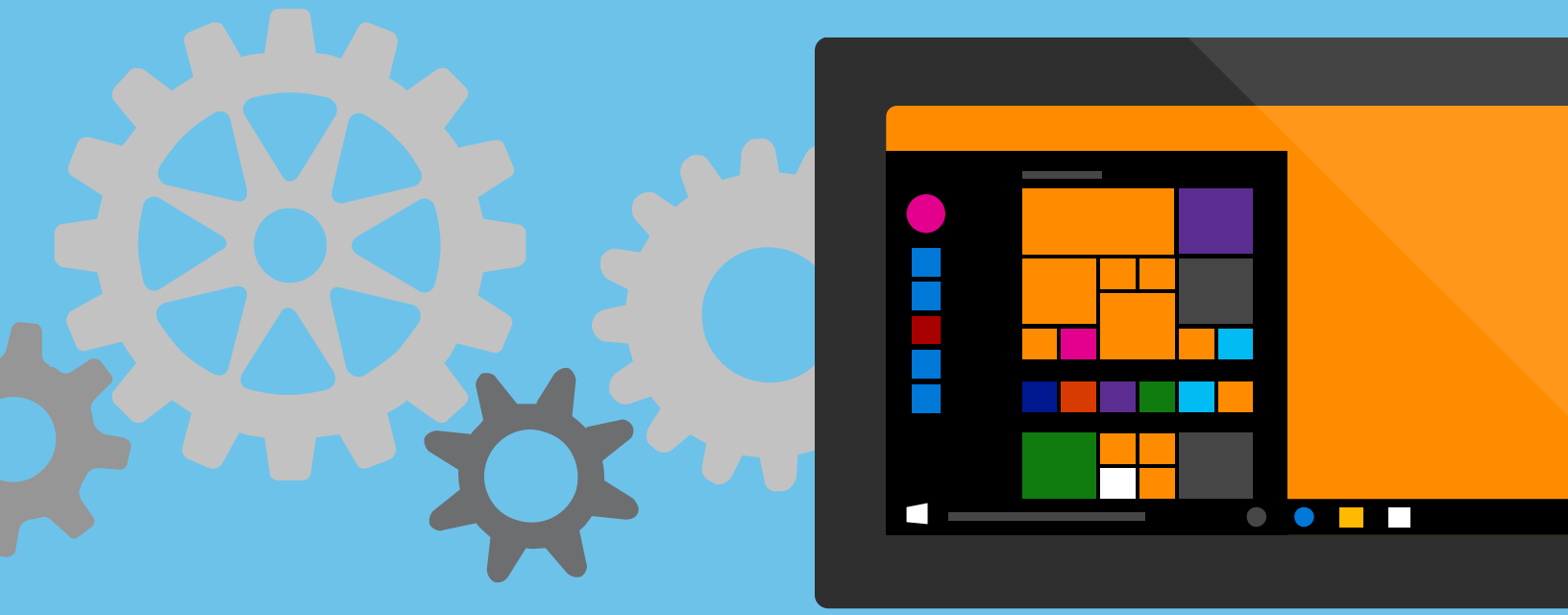
Azure for academic institutions

Microsoft regularly works with academic institutions to provide Azure services to support necessary infrastructure in education. With outstanding services like Hybrid Cloud, a data platform that allows for comprehensive learning analytics, and robust IoT solutions that provide for a Connected Campus, universities and schools can rely on Azure to enhance their education offerings.

Data egress

To enable our educational customers to achieve more with the cloud, Microsoft has provided an Internet egress fee waiver. This is available for qualified customers in North America, Europe, and APAC (under EES agreements and in certain Azure Zone data centers) and removes the egress charges as long as they make up less than 15% of their total Azure consumption bill.

For more information, this associated blog post provides more detail and includes several customer references highlighting the impact of the waiver.



https://www.microsoft.com/education