

IU13 Technology Management Career Pathway Program

A brief description of the program:

The IU13 Technology Department is launching a Technology Management Career Pathway Program that focuses on giving students the skills they need to enter college or a technical program in the field of Information Technology.

IU13's Technology Management Career Pathway internship program is designed to give students through mentorship, online coursework, hands-on training, and the ability to prepare and take a Microsoft certification test. Participants will have the option to participate in one of three career pathways:

- Data Science – Database Fundamentals,
- IT Infrastructure – Windows Server Administration Fundamentals, and
- IT Infrastructure – Networking Fundamentals

The online portion of the program will run from January through May using Schoology, leading to an eight week paid internship opportunity during the summer. Throughout the entire process, an intern supervisor will be assigned to the student. The supervisor will monitor the intern's assignments and progress, as well as collaborate with the mentor who will coach, train, and provide deeper insights into the technology field. At the end of the program, the students should be prepared to take a Microsoft Technology Associate exam and obtain certification.

Background Information:

School districts are recognizing that graduates must possess new skills for the demands of the 21st-century workforce. There is an increase in the districts' needs to incorporate college and career readiness opportunities into their school experience. At the same time IU 13's Technology Department, in preparation for the changing climate related to staffing and employee retention, is looking to build capacity through partnerships with local school districts. As a result, IU13 incorporated in its Strategic Priorities the goal of developing a Technology Management Career Pathway program.

Available Pathways

Data Science Path - Microsoft is invested in improving data science awareness and skills. We offer curriculum to expose students to the field of data science, beginning with building basic skills in data analysis using Excel and database fundamentals, then moving on to more intermediate and advanced concepts and applied skills such as working with non-relational data, data visualization, and finally exploring data science and machine learning. Imagine Academy's Data Science learning path is a great runway for students wishing to go on to pursue more advanced levels of study and professional certification.

Certification option:

- MOAC MTA 98-364 Database Fundamentals
Skill Level: Intermediate

This course is designed to cover all the learning objectives for the MTA exam 98-364 – Database Fundamentals. Database Fundamentals provides the hands-on experience to increase the students computer science skills. At the completion of this course, students will be able to:

- understand core database concepts.
- create database objects.
- manipulate data.

- understand data storage.
- and administer a database.

*Requires lab environment setup. Please see course syllabus for more details.

IT Infrastructure Path - Microsoft is invested in improving IT Infrastructure awareness and skills. In this learning path, we offer curriculum to expose students to basic skills in fundamentals related to managing infrastructure for the Cloud, clients and mobile devices, and Office 365. Fundamental curriculum includes Windows Operating Systems, Servers, Networking, Security, Cloud Platform, Mobility, and Devices. The IT Infrastructure learning path will continue to evolve as we expand the portfolio to include intermediate and more advanced curriculum.

Certification options:

- MOAC MTA 98-365: Windows Server Administration Fundamentals
Skill Level: Intermediate

This course is designed to cover all the learning objectives for that MTA exam 98-365 - Windows Server Administration Fundamentals. At the completion of this course, students will be able to

- understand server installation and virtualization.
- identify major server hardware components.
- understand how to install updates.
- how to manage Windows Servers.
- how to manage storage.
- how to monitor and troubleshoot servers.
- and understand accounts and groups, organization units and containers, Active Directory infrastructure, and group policy.

*Requires lab environment setup. Please see course syllabus for more details.

- MOAC MTA 98-366: Networking Fundamentals
Skill Level: Intermediate

This course is designed to cover all the learning objectives for the MTA exam 98-366 – Networking Fundamentals. At the completion of this course, students will be able to:

- understand local area networking.
- define networks with the OSI model.
- understand wired and wireless networks.
- understand Internet Protocol.
- implement TCP/IP in the command line.
- understand networking services.
- understand Wide Area Networks.
- and define network infrastructures and network.

*Requires lab environment setup. Please see course syllabus for more details.

Student Benefits

College readiness

Microsoft Technology Associate (MTA) certifications provide students with the foundation, readiness and confidence to continue and succeed in advanced technology studies. For example, many college and higher education courses require students to possess critical thinking skills; a student who has earned a certification in Computer Science will have a head start through experience creating new software and applications.

College credits

Microsoft certification can support college credit throughout the world, depending on the accrediting body. For example, in the United States a selection of Microsoft certifications are eligible for college credit. The American Council on Education (ACE) has recommended one to six semester hours of college credit for the selected certifications. It provides credit in bachelor's or associate's degree classes on computer applications, information technology, and computer information systems.

Career readiness

Achieving a Microsoft Certification enables students to confidently enter the workforce with proven technical skills and an internationally recognized certification, both of which can significantly increase their chances of finding employment.

Ninety-one percent of hiring managers consider certification as part of their hiring criteria (Microsoft, Microsoft Certification Program Satisfaction Study, April 2012). Most jobs today require some degree of technology skills, and this only increases over time.

Benefits of Certification

On average, Microsoft certified technologists earn 15% more than their uncertified peers. What's more, certified employees are often entrusted with supervising their peers—putting students on the fast track for a promotion.

Microsoft Certified Professionals spend less time interviewing and more time driving value. Adding a Microsoft certification to your resume helps you stand out and get hired—faster. What's more, certified new hires are fully productive an entire month sooner than their uncertified peers, making your skills clearly stand out.

91% of hiring managers consider certification as part of their hiring criteria. ~ Microsoft, Microsoft Certification Program Satisfaction Study, April 2012

39% certified new hires reach full productivity 39% faster than their peers ~ IDC/Microsoft, The Business Value of IT Certification, November 2015

38% of IT professionals claimed certification helped them perform complex tasks more confidently. ~ Pearson VUE, The Value of IT Certification Survey, January 2016

Successful Candidates

- Must have interest in the technology field.
- Be able to work independently with remote support from Intern Supervisor and Mentor.
- Effectively communicate through writing.
- Be self-motivated and self-disciplined.
- Be willing to speak up if problems arise.
- Be able to meet deadlines and keep weekly progress appointments.
- Accept critical thinking and decision making as part of the learning process.
- Be willing and able to commit to 4 to 5 hours per week to online coursework.
- Be willing and able to participate 3 days a week from 8 – 4 PM for a summer internship. Students will be required to travel to assigned location.
- Be at least 16 years of age by May 31 of current year.
- Pass all clearances, including FBI, background, and child abuse.
- Pass medical physical and TB test.
- Have access to internet service.

Results of the Pilot Program

During the pilot program the students were able to completed the online coursework, Windows Server Administration Fundamentals, and continued into the summer paid internship portion of the program. During the 8-weeks internship, the students:

- Repaired laptops
- Set up servers and virtual machines
- Configured web servers and websites
- Imaged laptops
- Migrated employees to new laptops
- Provided helpdesk support
- Wrote scripts to solve issues
- Assisted with Conference Center wiring

After completing the online coursework and summer internship, students were given an Exam Review kit. They are encouraged to review the information and contact IU13 when they feel they are prepared to take the Microsoft test. IU13 will work with the student to schedule and the exam.