



Information Technology

Information Technology (IT) is an area that is growing and always changing with new developments. In IT, you would be part of a cluster that continues to make an impact on society and individuals. You would have the opportunity to work in all types and sizes of businesses from Microsoft to your local hospital. Employees in Information Technology work with computer hardware, software, multimedia, and network systems. In this cluster, you might design new computer equipment or computer games. Or you might make sure that the software or networks are working. In addition, you might have to make sure that people know how to use them. Or you might manage whole networks that link workers in all parts of the world.



ALIGNED TO INDUSTRY

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Computer Engineer	\$91,210	2,050	34%
Help Desk Technician	\$46,370	1,400	16%
Software Engineer	\$107,510	3,160	22%
Web Developer	\$73,760	140	8%
Network Architect	\$93,420	193	2%

APPROVED COURSES

EXPLORATORY

- 3D Modeling and Animation
- Computer Networking
- Computer Programming
- Computer Technology

PREPARATORY

- Advanced Computer Programming
- District I.T. Intern
- Tiger Tech Internship

WORK-BASED LEARNING AND EXTENDED LEARNING OPPORTUNITIES

Work Experience Opportunities

This pathway offers students an opportunity to gain valuable on the job experience working as a paid intern for the school district's technology department. Students will setup and maintain computer labs, perform customer service call center activities, and troubleshoot computer and network issues across the district. Use your technical computer skills to help your school and community. Gain valuable hands on experience while troubleshooting and repairing teacher's personal computers. Set up labs for the IT courses and assist in maintaining the lab and classroom equipment.

Student Leadership Organizations

Career and technical student organizations are much more than clubs. They provide opportunities for hands-on learning, and for applying career, leadership and personal skills in real-world environments. Participants build their skills by developing projects, attending events, and competing regionally and nationally. The student organization for Computer Science is [Missouri SkillsUSA](http://MissouriSkillsUSA.com).

Career Pathways within the **Information Technology (IT) cluster** include:

- Information Support and Services* – set up computers, install the software, troubleshoot issues, instruct new users
- Network Systems* – designing, installing, and maintaining network systems, allowing employees to share information
- Programming and Software Development* – design and test new software programs, developing tomorrow's products for businesses
- Web and Digital Communications* – responsible for finding and keeping employees

PROGRAM PATHWAYS

	Computer Science	IT Infrastructure	IT Internship	Sending Schools
Year 1	Computer Programming*	Computer Technology*	Computer Technology*	
Year 2	3-D Modeling and Animation*	Computer Networking*	Computer Networking*	
Year 3	Advanced Programming (Pre-req – Computer Programming)	District IT Internship** (Pre-reqs – Computer Technology and Computer Networking)	District IT Internship** (Pre-reqs – Computer Technology and Computer Networking)	Computer Technology Computer Networking
Year 4	Tiger Tech Internship** (Pre-reqs – Computer Programming and Advanced Programming)	Tiger Tech Internship** (Pre-reqs – Completed both infrastructure courses OR completed one and concurrently enrolled in the other)		Tiger Tech Internship Computer Technology Intern
* Suggested year - class can be taken any year in the program ** Suggested year - Class can be taken Year 3 or Year 4				

POSTSECONDARY OPTIONS

CREDENTIALS		HIGHER EDUCATION			
HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL	SCHOOLS WITH THESE PROGRAMS
MTA: Windows Operating System Fundamentals	Computer Science	Cyber-computer Forensics		Cyber Security	NEO, Jefferson College, Lindenwood, MSU, SEMO, SBU, UCM
MTA: Networking Fundamentals	Cisco Networking	Computer and Networking Support Tech Networking Technology	Computer Systems Networking and Administration		Crowder, OTC, MSU, NWMSU, UMKC, UMSL
MTA: Software Developer Fundamentals C#	Computer Programming	Computer Programming	Software Engineering Computer Engineering		Crowder, OTC, Drury, MU-S&T, SLU, Mizzou, UMKC
CompTIA A+ Core 1 & Core 2	Information Technology	Computer Information Sciences	Information Technology		OTC, College of the Ozarks, MSSU, MSU, MU-S&T, Mizzou, UMKC