Information Technology, AAS
Network Systems Security – Concentration

Academic Year 2024-2025

Program Description:
The Associate in Applied Science Degree concentration in Network Systems Security offers comprehensive network training from Mountwest Community and Technical College's Microsoft Information Technology Academy and Cisco Networking Academy. Within the two-year Associate Degree program, students take courses preparing them for industry certifications from Cisco, Microsoft, and CompTIA taught by certified professors. This concentration provides specialized skills in network administration, design, and security. Students will take courses preparing them for the following certifications:

> CompTIA's A+
> CWNP's Certified Wireless Specialist
> CompTIA's Security+
> Microsoft's Windows Server Hybrid Administrator Associate
> Cisco's CCNA (Cisco Certified Network Associate)

Career Outlook and Salary Forecast:
For the most updated information, please visit (https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm

Program Outcomes:
- Recite essential knowledge for all cybersecurity domains including information security, systems security, network security, ethics and laws, and defense and mitigation techniques used in protecting businesses
- Install and configure a Windows Server based on business needs
- Configure an Active Directory infrastructure
- Plan, deploy, manage, and troubleshoot a Microsoft Exchange environment
- Implement secure computing baselines in an organization
- Install and configure an interconnected network device (ICND) infrastructure based on business needs

Career Description:
A well-rounded network professional is capable of performing network administration, design, maintenance, and security on a variety of network operating systems and devices. Windows Server Hybrid Administrator Associates configures and manages Windows Server on-premises, hybrid, and infrastructure as a service (IaaS) platform workloads. Cisco Certified Network Associates design, build, and maintain computer networks using a variety of network devices. CompTIA Security+ specialists design and implement security solutions that reduce network vulnerability. MCTC's Network Systems Security option provides fundamental networking knowledge and skills with specific network security training crucial for entry into information security positions in public corporations and government entities.

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Mountwest empowers students to learn and lead in the community and in the workforce.

Information Technology Major Code – CI20 • Network Systems Security Concentration Code – CI26

Name:	ID Number 942-
Educational Counselor:	
Faculty Advisor:	

COURSE	REQUIREMENTS	SEM	HRS	GR	SUBSTITUTE/REPEAT CRS	SEM	CR
IT 270	Computer Essentials and Applications		4				
IT 120	Network Operating Systems		4				
IT 131	Introduction to Networking[1]	Fall	4				
IT 141	Networking Systems II	Fall	4				
IT 297	Co-Curricular Experiences in Networking		0				
			16				
ENL 131	Business and Technical Writing[2]		3				
IT 231	Networking Systems III[3]	Spring	4				
IT 241	Networking Systems IV	Spring	4				
IT 224	Fundamentals of Network Security[4]	Spring	3				
IT 297	Co-Curricular Experiences in Networking		0				
			14				
IT 210	Networking Administration I[5,6]	Fall	3				
IT 211	Networking Administration II[6]	Fall	3				
IT 216	Networking Administration III[6]	Fall	3				
IT 217	Networking Administration IV[6]	Fall	3				
COM 125	Interpersonal Communication		3				
IT 297	Co-Curricular Experiences in Networking		0				
			15				
SOCI 210	Fundamentals of Sociology		3				
IT 225	Fundamentals of Wireless LANs[7]	Spring	4				
MAT 120	Applied Professional Math[8]		3				
PSYC 200	General Psychology		3				
IT 299	Information Technology Internship/Coop[9]		3				
			16				
	Hours Required for Graduation: 61						

[1]IT 131 has a corequisite of IT 141.

[2]ENL 131 has a prerequisite of placement into 100 level English or a corequisite of ENL 095.

[3]IT 231 has a prerequisite of IT 141 and a corequisite of IT 241.

[4]IT 224 has a prerequisite of IT 101, IT 102 or IT 270.

[5]IT 210 has a prerequisite of IT 120 and corequisites of IT 211, IT 216 and IT 217.

[6]Networking Administration classes IT 210, IT 211, IT 216 and IT 217 must be taken concurrently. These classes cannot be taken individually.

[7]IT 225 has a prerequisite of IT 131, IT 230 or Permission.

[8]MAT 120 has a prerequisite of placement in 100-level Math or a minimum ACT Math score of 19 or SAT Math score of 510.

[9]IT 299 has a prerequisite of permission of Program Coordinator/Dean.