

# Information Technology AAS

## Network Systems Security – Concentration

Career & Technical Division

### Program Description:

The Associate in Applied Science Degree Program 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 developed by Microsoft and Cisco, providing specialized skills in network administration, design, and security. Students will take courses preparing them for the following certifications:

CompTIA's A+ Hardware and Operating Systems ..... Microsoft's MCSA: (Microsoft Certified Solutions Associate)

CompTIA's Linux+ ..... Cisco's CCNA (Cisco Certified Network Associate)

CompTIA's Security+ ..... CompTIA's Server+

### Career Outlook:

Released on February 14, 2003, the National Strategy to Secure Cyberspace identifies a need for training programs in cyber security to produce a workforce capable of securing our nation's information technology infrastructure

([http://csrc.nist.gov/policies/cyberspace\\_strategy.pdf](http://csrc.nist.gov/policies/cyberspace_strategy.pdf)). A recent IDC survey shows the total information technology security market revenues, including software, hardware, and services, is expected to increase from \$17 billion in 2001 to \$45 billion by 2006, thus fueling a 24% rise in spending for network security services. For more information visit (<http://www.idc.com>), then search for February 4, 2003 Press Release entitled "Total IT Security Market."

### Salary Forecast:

For the most current salary information please refer to the Bureau of Labor Statistics "Occupational Outlook Handbook" found at [www.bls.gov/ooh/](http://www.bls.gov/ooh/).

### Employment Opportunities:

- Network administrator
- Web designer
- Systems support technician
- Network designer
- Security solutions designer
- Help desk technician
- Hardware technician
- Software applications

### 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. Microsoft Certified Solutions Associate manage and troubleshoot system environments running the Windows 2008 operating system. Cisco Certified Network Associates design, build, and maintain computer networks using a variety of network devices. CompTIA Security+ and Cisco Network Security Specialists design and implement security solutions that reduce network vulnerability. Cisco Wireless LAN Support Specialists implement and troubleshoot Wireless LANs. 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.

### Contact Information:

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*Our mission is to prepare students for careers, civic responsibility and life-long learning.*

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

<b>Name:</b>			<b>ID Number 942-</b>	
<b>CAPS SCORES:</b>	<b>MATH:</b>	<b>ENGLISH:</b>	<b>READ:</b>	<b>DOE:</b>
<b>COL 101 Faculty:</b>				
<b>Educational Counselor:</b>				
<b>Faculty Advisor:</b>				

**COURSE REQUIRED**

COURSE	REQUIREMENTS	SEM	HRS	GR	SUBSTITUTE/REPEAT CRS	SEM	CR
ENL 111	Written Communication <sup>1</sup>		3				
IT 102	Advanced Computer Applications		3				
IT 120	Network Operating Systems		4				
IT 131	Introduction to Networking <sup>2</sup> (EDGE)		4				
COM 112	Oral Communication <sup>3</sup>		3				
IT 141	Networking Systems II <sup>4,5</sup> (EDGE)		4				
IT 224	Fundamentals of Network Security <sup>4,6</sup>		3				
MAT	Approved Math Elective <sup>7</sup>		3				
IT 210	Networking Administration I <sup>2,8,9</sup>		3				
IT 211	Networking Administration II <sup>2,9</sup>		3				
IT 216	Networking Administration III <sup>2,9</sup>		3				
IT 217	Networking Administration IV <sup>2,9</sup>		3				
IT 231	Networking Systems III <sup>2,10</sup> (EDGE)		4				
ENL 231	Business and Technical Writing <sup>1</sup>		3				
IT 225	Fundamentals of Wireless LANs <sup>4,11</sup>		4				
IT 241	Networking Systems IV <sup>4,12</sup> (EDGE)		4				
IT 277	Management Information Systems <sup>13</sup>		3				
IT 299	Information Technology Internship/Coop <sup>14</sup>		3				

**DEVELOPMENTAL COURSES REQUIRED**

COURSE	REQUIREMENTS	SEM	HRS	GR	SUBSTITUTE/REPEAT CRS	SEM	CR
	Hours Required for Graduation: 60						

**Earn A Degree Graduate Early (EDGE):**

This program provides students the opportunity to receive credit for their high school EDGE courses.

<sup>1</sup> ENL 111 and ENL 231 have a prerequisite of placement in 100-level English and placement in 100-level reading.  
<sup>2</sup> IT 131, IT 210, IT 211, IT 216, IT 217, and IT 231 are offered fall semesters only.  
<sup>3</sup> COM 112 has a prerequisite of placement in 100-level reading.  
<sup>4</sup> IT 141, IT 224, IT 225, and IT 241 are offered spring semester only.  
<sup>5</sup> IT 141 has a prerequisite of IT 131.  
<sup>6</sup> IT 224 has a prerequisite of IT 101 or IT 102.  
<sup>7</sup> Choose from any 100-level or above.  
<sup>8</sup> IT 210 has a prerequisite of IT 120 or permission.  
<sup>9</sup> Networking Administration classes IT 210, IT 211, IT 216, and IT 217 must be taken concurrently. These classes cannot be taken individually.  
<sup>10</sup> IT 231 has a prerequisite of IT 141.  
<sup>11</sup> IT 225 has a prerequisite of IT 131, IT 230, or Permission.  
<sup>12</sup> IT 241 has a prerequisite of IT 231.  
<sup>13</sup> IT 277 should be taken in last semester or permission.  
<sup>14</sup> IT 299 has a prerequisite of permission of Program Coordinator/Dean.

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