

COMPUTER NETWORKING AND SECURITY

The Computer Networking and Security program prepares students for employment in the Information Technology (IT) sector, including positions in network and information security administration, Microsoft system administration, network administration, and technical support. It also prepares students for certification through the Cisco Certified Network Academy and in security and Microsoft client and server technologies.

Learning Outcomes: Upon successful completion of the program, students will be able to:

- Implement and configure Cisco routers to perform local and wide area network routing using various routing protocols.
- Configure and manage Cisco switches to perform local area network switching.
- Implement and configure security on local and wide area networks.
- Configure and manage wide area network technologies.
- Demonstrate an ability to accurately assess knowledge, skills, and abilities in relationship to their educational, career, and/or personal goals.

Certificate of Achievement (Career Technical)

Certificate Requirements	Units
REQUIRED CORE:	18
CSIS 76A Networking Fundamentals (4)	
CSIS 80 Introduction to UNIX and Linux (3)	
CSIS 86 Network Security Fundamentals/Security+ Prep (3)	
CSIS 177A Routing and Switching Basics (3)	
CSIS 178A Network Scaling Concepts (3)	
CSIS 179A Interconnecting Networks (3)	
Select four courses from the following:	12-14
CSIS 9 Programming Fundamentals: Python (3)	
or CSIS 10A Programming Methods I: Java (4)	
CSIS 72A Managing/Maintaining Windows Server (3)	
CSIS 75 Introduction to Computer Hardware/A+ Prep (4)	
CSIS 83A Microsoft Client Operating Systems (3)	
CSIS 88 Security Practices: Penetration Testing and Discovery (3)	
CSIS 174A Managing/Maintaining Advanced Windows Server Services (3)	
CSIS 190 Computer Forensics (3)	
CSIS 192 Virtualization and Cloud Computing Concepts (3)	
TOTAL CORE CERTIFICATE UNITS	30-32

Associate in Science Degree (Career Technical)

Associate Degree Major Requirements	Units
Certificate Requirements (determined by option)	30-32
Suggested courses to take from the list above for the following options:	
Option 1 – Computer Support Specialist:	
CSIS 72A (or CSIS 172), CSIS 75, CSIS 80, CSIS 83A	
Option 2 – Microsoft Networking and Security Professional:	
CSIS 72A (or CSIS 172), CSIS 83A (or CSIS 83), CSIS 174A (or CIS 174), CSIS 192	

Option 3 – Networking and Security Specialist:

CSIS 72A (or CSIS 172), CSIS 88, CSIS 190, CSIS 192

Complete Competency Requirements and MPC General Education Pattern for a total of 60 degree-applicable units (see pages 72-73, 76 in the 2017-18 MPC Catalog).

TOTAL DEGREE UNITS

60
