

# COMPUTER NETWORKING, AS

**Program code:** CPNT-AS

**Location:** Capital, Gateway, Manchester, Quinebaug Valley, Tunxis

## Program Description

The Computer Networking associate degree program provides students with both a broad and in-depth background in computer networking concepts and technologies. It covers the fundamentals of computer network theory as well as practical network connectivity device configuration, administration of networked client-server computer operating systems, computer hardware design and maintenance and computer programming.

Students will be able to build virtualized and real-world computer networks. Students will have hands-on access to computer networking equipment.

This degree prepares students for entry-level positions in the computer networking and system administration professions. Students may also choose to transfer to a bachelor's degree program at a four-year university.

Students who are interested in programming should consider the CSCU Pathway Transfer Degree: Computer Science Studies A.A degree.

## Learning Outcomes

Upon successful completion of all program requirements, graduates should be able to:

1. Design and build local area networks (LAN).
2. Use packet tracing software to analyze network traffic.
3. Install and configure Linux and Windows operating systems.
4. Install and configure network services in Linux and Windows operating systems.
5. Design, build and test a Python program.
6. Implement virtualization technologies.

This degree will begin to prepare students for common security certification exams such as:

- CompTIA Network+
- CompTIA Linux+
- CompTIA Security+
- CompTIA A+

## Certificate Requirements

Code	Title	Credits
<b>General Education Courses</b>		
ENG 1010	Composition	3
MATH 1000 or higher <sup>1</sup>		3-4
Elective ARHX - Arts & Humanities Course		3-4
Choose one of the following:		3-4
Elective SCKX - Scientific Knowledge Course <sup>2</sup>		
Elective SCRX - Scientific Reasoning Course		
Elective SBSX - Social / Behavioral Science Course or Elective HISX - Historical Knowledge Course		3

Elective ORAX - Oral Communication Course or Elective WRIX - Written Communication II Course 3

CSC 1001 College and Career Success 3

### Program Courses

CSC 1203 Python Fundamentals 3

CST 1111 Computer Hardware 4

CST 1221 Networking I 4

CST 2222 Networking II 4

CST 2223 Networking III 4

CST 2125 Protocol Analysis 3

CST 2161 Virtualization and Cloud Computing 3

CST 1141 Linux System Administration 4

CST 2142 Windows Server Administration 4

CYS 2111 Network Security 3

Elective - Any EGR, CIS, CSC, CSA, CST, or CYS course 3-4

**Total Credits 60-64**

<sup>1</sup> MATH 1200 Statistics I recommended

<sup>2</sup> PHYS 1100 Introductory Physics recommended