

# COMPUTER NETWORKING AND CYBERSECURITY, CERTIFICATE OF ACHIEVEMENT (C)

## Overview

The Certificate of Achievement in Computer Networking and Cybersecurity degree provides students with foundational knowledge to design, configure, manage, troubleshoot, and secure networks, using the latest concepts, technologies, and techniques.

This program is designed to prepare students for careers in computer networking and cybersecurity. Graduates will be qualified for technological roles in network design, network infrastructure, network security, and network installation and maintenance. This program offers several courses that prepare students for achieving the requirements to take the examinations of various industry certifications including: A+, Network+, Security+, Cisco Certified Network Associate (CCNA).

Career opportunities include IT Specialists, Computer Technicians, Network Administrators, and Network Engineers.

## Requirements

### Certificate of Achievement Requirements

Complete all Department Requirements for the Certificate of Achievement with a cumulative grade point average (GPA) of 2.0 or better. Candidates for a Certificate of Achievement are required to complete at least 20% of the department requirements through SBCC.

| Code                                   | Title  | Units              |
|--|--|--------------------|
| <b>Department Requirements</b>         |  |                    |
| CNEE 101                               | Introduction to Computers and Networks       | 4                  |
| CNEE 102                               | A+ Computers and Network Support             | 4                  |
| CNEE 110                               | Networking Essentials                        | 4                  |
| CNEE 120                               | Introduction to Cybersecurity                | 4                  |
| CNEE 125                               | CCNA I-Introduction to Switching and Routing | 5                  |
| CNEE 126                               | CCNA II Advanced Routing and Switching       | 5                  |
| Complete two of the following courses: |  | 7-8                |
| CIS 201                                | UNIX/LINUX System Administration             |                    |
| CIS 206                                | MS Windows Server System Administration      |                    |
| CIS 218                                | MS Windows Desktop System Administration     |                    |
| CNEE 109                               | Introduction to Internet of Things (IoT)     |                    |
| CNEE 148                               | CCNA Cybersecurity Operations                |                    |
| <b>Total Units</b>                     |  | <b>33.00-34.00</b> |

- Monitor computer systems to improve network performance for all systems.
- Identify computer network security threats and vulnerabilities for a given network, choose appropriate network security hardware and software for a given security requirement, and apply necessary security measures to prevent a possible computer network compromise.
- Given a computer network problem, apply critical thinking, problem-solving techniques and effective communications skills to find solutions to the problem.

## Recommended Sequence

Make an appointment with your SBCC academic counselor through Starfish to create a Student Education Plan that reflects a recommended course sequence for this program that is tailored to your individual needs.

How to schedule an Academic Counseling appointment (<https://www.sbcc.edu/counselingcenter/counselingappointments.php>).

## Learning Outcomes

- Apply basic computer hardware and software concepts to install, trouble-shoot and manage computer network systems.