# CISCO NETWORKING AND SECURITY TECHNOLOGIES - BASIC TECHNICAL CERTIFICATE (BTC)

Explore More About This Program: https://cwi.edu/program/cisco-networking-and-security-technologies

## Certificate Quick Facts

- **Instructional School:** Science, Technology, and Math
- **Department:** Computer Science and Information Technology
- **Program Code:** CNST.BTC
- **Program Type:** Career and Technical Education
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the Special Course Fees web page.

## Certificate Requirements

| Course | Course Title | Min Credits |
|---|---|---|
| **Major Requirements** | | |
| CNST 124 | IT Essentials | 6 |
| CNST 127 | Introduction to Networks | 6 |
| CNST 129 | Switching, Routing, and Wireless Essentials | 6 |
| CNST 135 | Enterprise Networking, Security, and Automation | 6 |
| **Minimum Credit Hours Required** | | **24** |

## Certificate Plan: Fall Start

*The course sequence listed below is strongly recommended in order to complete your program requirements. Many Career and Technical Education (CTE) courses have prerequisites and/or corequisites that have been accounted for within this course sequence plan. Please register for each semester as shown using the Student Planning tool in myCWI. Consult your advisor for any questions regarding this course sequence plan.*

**First Year**

| Fall | | Credit Hours |
|---|---|---|
| CNST 124 | IT Essentials | 6 |
| CNST 127 | Introduction to Networks | 6 |
| | **Total Semester Credit Hours** | **12** |
| **Spring** | | |
| CNST 129 | Switching, Routing, and Wireless Essentials | 6 |
| CNST 135 | Enterprise Networking, Security, and Automation | 6 |
| | **Total Semester Credit Hours** | **12** |
| | **Minimum Credit Hours Required** | **24** |

## Program Learning Outcomes

**Upon successful completion of this program, students will be able to:**

- Use network protocol models to explain the layers of communication in data networks for use in network design and troubleshooting.
- Demonstrate an understanding of switching concepts and LAN design to include the use of Virtual LANs with LAN trunking configured by the Spanning Tree Protocol.
- Configure and verify switches for network operation.
- Demonstrate an understanding of routing fundamentals, subnets, and IP addressing schemes.
- Configure and verify routers for network operation.
- Design, planning, implementation, operation, and troubleshooting of wired and wireless networks.