

# 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:** Communication and Information Technologies
- **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

## Certificate Requirements

Course	Course Title	Min Credits
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
<b>Minimum Credit Hours Required</b>		<b>24</b>

## Plan of Study Guide

*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 Plan of Study Guide. Please register for each semester as shown using the Student Planning tool in myCWI. Consult your Student Success 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
<b>Total Semester Credit Hours</b>		<b>12</b>
Spring		
CNST 129	Switching, Routing, and Wireless Essentials	6
CNST 135	Enterprise Networking, Security, and Automation	6
<b>Total Semester Credit Hours</b>		<b>12</b>
<b>Minimum Credit Hours Required</b>		<b>24</b>

## 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.
- Use Cisco CLI commands to perform basic router and switch configuration and verification.
- Configure and verify router interfaces.
- Use advanced configuration commands with routers implementing EIGRP.
- Troubleshoot common network problems at Layers 1, 2, 3, and 7 using a layered model approach.
- Configure, verify, and troubleshoot VLANs, interVLAN routing, VTP, trunking on Cisco switches, and RSTP operation.
- Configure, verify, and troubleshoot DHCP and DNS operation on a router.
- Configure and verify a PPP connection between Cisco routers and Frame Relay on Cisco routers.