

# CISCO NETWORKING AND SECURITY TECHNOLOGIES - ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

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

## Degree Requirements

Course	Course Title	Min Credits
<b>General Education Degree Requirements</b>		
<i>Complete the following course to fulfill the GEM 1 requirement:</i>		
<u>GEM 1 - Written Communication course</u>		3
<i>Complete the following course to fulfill the GEM 2 requirement:</i>		
<u>GEM 2 - Oral Communication course</u>		3
<i>Complete the following course to fulfill the GEM 3 requirement:</i>		
<u>GEM 3 - Mathematical Ways of Knowing course</u>		3
<i>Complete the following course to fulfill the GEM 6 requirement:</i>		
<u>GEM 6 - Social &amp; Behavioral Ways of Knowing course</u>		3
<i>Complete the following course to fulfill the General Education Elective requirement:</i>		
<u>GE Elective course</u>		3
<b>Major Requirements</b>		
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
CNST 230	Linux Essentials	4
CNST 238	Cisco Certified Network Associate (CCNA) Cyber Ops	4
CNST 240	Virtualization Technologies	4
CNST 242	Cisco DevNet Associate	4
CNST 244	Linux Advanced	4
CNST 248	Python Programming for Cisco	4
<b>Minimum Credit Hours Required</b>		<b>63</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 your major requirements each semester as shown below using the Student Planning tool in myCWI. Consult your Student Success Advisor for any questions regarding this plan.

*NOTE: The required general education courses may be completed during any semester the student prefers, including summer semesters.*

### First Year

Course	Course Title	Credit Hours
CNST 124	IT Essentials	6
CNST 127	Introduction to Networks	6
<u>GEM 1 - Written Communication course</u>		3
<b>Total Semester Credit Hours</b>		<b>15</b>

**Spring**

CNST 129	Switching, Routing, and Wireless Essentials	6
CNST 135	Enterprise Networking, Security, and Automation	6
<u>GEM 3 - Mathematical Ways of Knowing course</u>		3
<b>Total Semester Credit Hours</b>		<b>15</b>

**Second Year****Fall**

CNST 230	Linux Essentials	4
CNST 238	Cisco Certified Network Associate (CCNA) Cyber Ops	4
CNST 240	Virtualization Technologies	4
<u>GEM 6 - Social &amp; Behavioral Ways of Knowing course</u>		3
<b>Total Semester Credit Hours</b>		<b>15</b>

**Spring**

CNST 242	Cisco DevNet Associate	4
CNST 244	Linux Advanced	4
CNST 248	Python Programming for Cisco	4
<u>GEM 2 - Oral Communication course</u>		3
<u>GE Elective course</u>		3
<b>Total Semester Credit Hours</b>		<b>18</b>
<b>Minimum Credit Hours Required</b>		<b>63</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.
- Configure, verify, and troubleshoot storage area networks.
- Configure, verify, and troubleshoot enterprise virtualization.
- Exhibit competencies of Written Communication (GEM 1), Oral Communication (GEM 2), Mathematical Ways of Knowing (GEM 3), Social and Behavioral Ways of Knowing (GEM 6), and other approved three-credit general education course.