## **Computer Information Systems**



# **Networking 2**

Switching, Routing, and Wireless Essentials

Networking CISCO. Academy

#### Course Overview

Switching, Routing, and Wireless Essentials offers professionals job-ready training and skills. The course lays the foundation for job roles such as network administrator, network engineer or network specialist. Introduction to mitigation of security threats and wireless networking concepts.

# Academy Academy

#### Learning Objectives

- Configure VLANs and Inter-VLAN routing applying security best practices
- Configure redundancy on a switched network using STP and EtherChannel
- Configure WLANs using a WLC and L2 security best practice

#### Student Experience

- Gain experience installing, monitoring and troubleshooting network infrastructure
- Troubleshoot inter-VLAN routing on Layer 3 devices
- support available and reliable networks using dynamic addressing and first-hop redundancy protocols

#### Course Details

- 16 Units
- 39 Lab Simulations
- 14 Hands-on labs
- 16 Interactive activities
- Other course materials and projects
- Earn three (3) college credits





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### Networking Academy



Students will complete 9 virtual lab simulations, 14 hands-on labs, 7 unit exams and pass the **CCNA 2** final based on the CCNA Routing, Switching, and Wireless Essentials leaning objectives. Other course materials, hands-on labs, and projects are used in addition to Cisco Netacad courseware. Total time spent **120** hours.

Three (3) credits - NHTI Community College - IST155C Cisco Routing and Switching Essentials

Cisco CCNA Routing, Switching, and Wireless Essentials Learning Objectives

#### Upon completion of this course, students will be able to:

- Configure VLANs and Inter-VLAN routing applying security best practices
- Troubleshoot inter-VLAN routing on Layer 3 devices
- Configure redundancy on a switched network using STP and EtherChannel
- Troubleshoot EtherChannel on switched networks
- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols
- Configure dynamic address allocation in IPv6 networks
- Configure WLANs using a WLC and L2 security best practice
- Configure switch security to mitigate LAN attacks
- Configure IPv4 and IPv6 static routing on routers



