

# **CISCO CCNA ROUTING AND SWITCHING**

# CCNAX: Interconnecting Cisco Networking Devices Accelerated v2.0

This 5-day, hands-on training, consists of ICND1 and ICND2 content in its entirety, but merged into a single course. When we say "hands-on", we mean it. Overlapping content between ICND1 and ICND2 is eliminated and content is rearranged for the purpose of the course flow. At Interface Technical Training, we don't just talk about lab gear, we supply it. CCNAX Students are Interface receive 50 hours of access to Cisco's Online Labs. In CCNAX v2.0, you will encounter more troubleshooting and more lab time than with the previous version of CCNAX.



## **AUDIENCE**

This course is for individuals who are currently or desire to become a Cisco Network Administrator. For those desiring certification, the course maps to certification exam 200-120 CCNA which is the composite exam associated with the Cisco CCNA Routing and Switching certification. Job roles can include: entry-level network engineer, network administrator, network support technician and help desk technician.

### **PREREQUISITES**

For this accelerated class, you should have some experience with Cisco networking gear. An alternative path may be courses CCNA215 and CCNA225.

- » Basic IP address knowledge
- » Basic computer literacy
- » Basic PC operating system navigation skills
- » Basic Internet usage skills

## WHAT YOU WILL LEARN

- » Describe network fundamentals and build simple LANs
- » Establish Internet connectivity
- » Manage network device security
- » Describe IPv6 basics
- » Troubleshoot VLAN issues, explain how STP works, configure EtherChannel, and understand the idea behind Layer 3 redundancy
- » Troubleshoot IP connectivity

- » Define the characteristics, functions and components of a WAN
- » Configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
- » Configure, verify, and troubleshoot multiarea OSPF
- » Describe SNMP, syslog and NetFlow, and manage Cisco device configurations, IOS images and licensing

"Interface never disappoints – first class all the wau!"

Interface Student Phoenix, AZ

## \$3595.00

- · 5-Day Course
- · CCNA Certification
- 50 hrs of access Cisco Online Labs
- Prepares for Cisco CCNAX Exam (200-120 CCNA)
- Promo and package discounts may apply

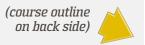
**QUESTIONS?**Call 602-266-8585



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## **COURSE OUTLINE**

#### CCNAX: Interconnecting Cisco Networking Devices Accelerated v2.0

#### Module 1: Building a Simple Network

- » Exploring the Functions of Networking
- » Understanding the Host-to-Host Communications Model
- » Introducing LANs
- » Operating Cisco IOS Software
- » Starting a Switch

Lab: Performing Switch Startup and Initial Configuration

- » Understanding Ethernet and Switch Operation
- » Troubleshooting Common Switch Media Issues

Lab: Troubleshooting Switch Media Issues

#### **Module 2: Establishing Internet Connectivity**

- » Understanding the TCP/IP Internet Layer
- » Understanding IP Addressing and Subnets
- » Understanding the TCP/IP Transport Layer
- » Exploring the Functions of Routing
- » Configuring a Cisco Router

Lab: Performing Initial Router Setup and Configuration

- » Exploring the Packet Delivery Process
- » Enabling Static Routing
- » Managing Traffic Using ACLs
- » Enabling Internet Connectivity

Lab: Connecting to the Internet

#### **Module 3: Managing Network Device Security**

- » Securing Administrative Access
- » Enhancing the Security of the Initial Configuration
- » Implementing Device Hardening

Lab: Device Hardening

» Implementing Traffic Filtering with ACLs

Lab: Filtering Traffic with ACLs

#### Module 4: Introducing IPv6

» Introducing Basic IPv6

Lab: Configure and Verify Basic IPv6

» Understanding IPv6

Lab: Configure and Verify Stateless Autoconfiguration

» Configuring IPv6 Routing

Lab: Configure and Verify IPv6 Routing

#### Module 5: Building a Medium-Sized Network

- » Implementing VLANs and Trunks
- » Routing Between VLANs

Lab: Configuring Expanded Switched Networks

» Using a Cisco Network Device as a DHCP Server

Lab: Configuring DHCP Server

» Troubleshooting VLAN Connectivity

Lab: Troubleshooting VLANs and Trunks

» Building Redundant Switched Topologies

Lab: Optimizing STP

» Improving Redundant Switched Topologies with EtherChannel

Lab: Configuring EtherChannel

- » Verify EtherChannel Redundancy
- » Understanding Layer 3 Redundancy

#### **Module 6: Troubleshooting Basic Connectivity**

» Troubleshooting IPv4 Network Connectivity

Lab: Troubleshooting IP Connectivity

» Troubleshooting IPv6 Network Connectivity

#### Module 7: Wide Area Networks

- » Understanding WAN Technologies
- » Configuring Serial Encapsulation

Lab: Configuring and Troubleshooting a Serial Connection

» Establishing a WAN Connection Using Frame Relay

Lab: Establishing a Frame Relay WAN

- » Introducing VPN Solutions
- » Configuring GRE Tunnels

Lab: Establishing a GRE Tunnel

## Module 8: Implementing an EIGRP-Based Solution

» Implementing EIGRP

Lab: Implementing EIGRP

» Troubleshooting EIGRP

Lab: Troubleshooting EIGRP

» Implementing EIGRP for IPv6

Lab: Implementing EIGRP for IPv6

» Module Self-Check

# Module 9: Implementing a Scalable OSPF-Based Solution

» Implementing OSPF

Lab: Implementing OSPF

» Multiarea OSPF IPv4 Implementation

Lab: Configuring Multiarea OSPF

» Troubleshooting Multiarea OSPF

Lab: Troubleshooting Multiarea OSPF

» Examining OSPFv3

Lab: Configuring OSPF for IPv6

#### **Module 10: Network Device Management**

» Configuring Network Devices to Support Network Management Protocols

Lab: SNMP and Syslog Basic Configuration

Lab: Analyzing NetFlow Data

- » Managing Cisco Devices
- » Licensing

Lab: Managing Cisco Devices and Licensing