



Cisco CCNA Routing and Switching

CCNAXv3 Interconnecting Cisco Networking Devices Accelerated

Cisco CCNAX v3 merges ICND1 and ICND2 into a single fast-paced course. If you want to get a solid Cisco foundation but can't take two weeks off, this is the perfect course. The days are long, but you'll finish in only 5 days! This live class is available virtually with [RemoteLive™](#) or locally at our Phoenix, AZ location.

\$3,895.00

- 5 Days
- Live Cisco Gear Demos
- GNS3 Demo – Build your own labs!
- Instructor Awarded "Cisco Top Quality" 5 Years Running
- Preps for CCNAX v3 Certification Exam (200-125 CCNA)

Upcoming Dates

Aug 26 - Aug 30

Nov 18 - Nov 22

Course Description

This course consists of Interconnecting Cisco Networking Devices, Part 1 (ICND1) and Interconnecting Cisco Networking Devices, Part 2 (ICND2) content merged into a single course. Overlapping content between ICND1 and ICND2 is eliminated and content is rearranged for the purpose of the course flow. Students will learn how to install, operate, configure, and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, connecting to a WAN, and identifying basic security threats. It also includes more in-depth topics that teach learners how to perform basic troubleshooting steps in enterprise branch office networks, preparing students for the Cisco CCNA R&S certification.

The days are long but rewarding; each day can go as long as 12 hours, but you're fast-tracking your certification goal!

This course prepares for CCNAX v3 Certification [Exam \(200-125 CCNA\)](#).

Course Outline

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
- Understanding Ethernet and Switch Operation
- Troubleshooting Common 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
- Exploring the Packet Delivery Process
- Enabling Static Routing
- Learning the Basics of ACL
- Enabling Internet Connectivity

Module 3 – Summary Challenge

- Establishing Internet Connectivity
- Troubleshoot Internet Connectivity

Module 4 – Implementing Scalable Medium-Sized Networks

- Implementing and Troubleshooting VLANs and Trunks
- Building Redundant Switched Topologies
- Improving Redundant Switched Topologies with EtherChannel
- Routing Between VLANs
- Using a Cisco IOS Network Device as a DHCP Server
- Understanding Layer 3 Redundancy
- Implementing **RIPv2**

Module 5 – Introducing IPv6

- Introducing Basic IPv6
- Understanding IPv6 Operation
- Configuring IPv6 Static Routes

Module 6 – Troubleshooting Basic Connectivity

- Troubleshooting IPv4 Network Connectivity
- Troubleshooting IPv6 Network Connectivity

Module 7 – Implementing Network Device Security

- Securing Administrative Access
- Implementing Device Hardening
- Implementing Advanced Security

Module 8 – Implementing an EIGRP-Based Solution

- Implementing EIGRP
- Implementing EIGRP for IPv6
- Troubleshooting EIGRP

Module 9 - Summary Challenge

- Troubleshooting a Medium-Sized Network
- Troubleshooting Scalable Medium-Sized Network

Module 10 – Implementing a Scalable OSPF-Based Solution

- Understanding OSPF
- Multiarea OSPF IPv4 Implementation
- Implementing OSPFv3 for IPv6
- Troubleshooting Multiarea OSPF

Module 11 – Implementing Wide-Area Networks

- Understanding WAN Technologies
- Understanding Point-to-Point Protocols
- Configuring GRE Tunnels
- Configuring Single-Homed EIGRP

Module 12 – Network Device Management

- Implementing Basic Network Device Management
- Evolution of Intelligent Networks
- Introducing QoS
- Managing Cisco Devices
- Licensing

Module 13 – Summary Challenge

- Troubleshooting Scalable Multiarea Network
- Implementing and Troubleshooting Scalable Multiarea Network

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 200-125](#) 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

Before taking the CCNAX course, learners should be familiar with:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Basic IP address knowledge
- Good understanding of network fundamentals

What You Will Learn

Upon completing this course, you will have the skills and knowledge to:

Install, operate, and troubleshoot a medium-sized network, including connecting to a WAN and implementing network security
Describe the effects of new technologies such as loE, IoT, IWAN, and SDN on network evolution.