

COURSE NAME	Cisco Certified Network Associate <u>CCNA</u> (640-802)
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OBJECTIVE	The CCNA certification indicates a foundation in and apprentice knowledge of networking for the small office/home office (SOHO) and small and medium business market. CCNA certified professionals can install, configure, and operate LAN, WAN, and dial-access services for small, simple networks, including (but not limited to) use of these protocols and technologies: IP, IPv6, Wireless, EIGRP, PPP, HDLC, NAT, Static Routing, Frame Relay, OSPF, VLANs, VTP, Ethernet, and Access Control Lists.
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PREREQUISITE	We recommend that you have experience working in a network environment. This program is for you if you want to learn the skills necessary to become Cisco CCNA certified.
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DURATION	40 hours
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OUTLINES	<ol style="list-style-type: none">Building a Simple Network<ul style="list-style-type: none">Exploring the Functions of NetworkingSecuring the NetworkUnderstanding the Host-to-Host Communications ModelUnderstanding the TCP/IP Internet LayerUnderstanding the TCP/IP Transport LayerExploring the Packet Delivery ProcessUnderstanding the EthernetConnecting to an Ethernet LANEthernet LANs<ul style="list-style-type: none">Understanding the Challenges of Shared LANsSolving Network Challenges With Switched LAN TechnologyExploring the Packet Delivery ProcessOperating Cisco IOS SoftwareStarting a SwitchUnderstanding Switch SecurityMaximizing the Benefits of SwitchingTroubleshooting Switch IssuesWireless LANs<ul style="list-style-type: none">Exploring Wireless NetworkingUnderstanding WLAN SecurityImplementing a WLANLAN Connections
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- Exploring the Functions of Routing
- Understanding Binary Basics
- Constructing a Network Addressing Scheme
- Starting a Route
- Configuring a Cisco Router
- Exploring the Packet Delivery Process
- Understanding Cisco Router Security
- Using Cisco SDM
- Using a Cisco Router as a DHCP Server
- Accessing Remote Devices

5. **WAN Connections**

- Under WAN Technologies
- Enabling the Internet Connection
- Enabling Static Routing
- Configuring Serial Encapsulation
- Enabling RIP

6. **Network Environment Management**

- Discovering Neighbors on the Network
- Managing Router Startup and Configuration
- Managing Cisco Devices

7. **Small Network Implementation**

- Introducing the Review Lab

8. **Medium-Sized Switched Network Construction**

- Medium-Sized Switched Network Construction
- Implementing VLANs and Trunks
- Improving Performance With Spanning Tree
- Routing Between VLANs
- Securing the Expanded Network
- Troubleshooting Switched Networks

9. **Medium-Sized Routed Network Construction**

- Reviewing Routing Operations
- Implementing VLSM

10. **Single-Area OSPF Implementation**

- Implementing OSPF
- Troubleshooting Switched Networks

11. **EIGRP Implementation**

- Implementing EIGRP
- Troubleshooting EIGRP

12. **Access Control Lists**

- Access Control Lists
- Introducing ACL Operation
- Configuring and Troubleshooting ACLs

13. **Address Space Management**

- Scaling the Network With NAT and PAT
- Transitioning to IPv6

14. **LAN Extension Into a WAN**

- Introducing VPN Solutions
- Establishing a WAN Connection With Frame Relay
- Troubleshooting Frame Relay WANs

EXIT PROFILE

Successful student will be able to appear for CCNA (640-802) exam.