

## **Cisco CCNA Boot Camp - New Version**

**Class Length: 5 Days**

### **Prerequisites**

Prior to attending CCNA, student should be very familiar with networking topics such as TCP/IP, IP configuration, peer-to-peer networking, subnetting, building a routing table, and other network protocols, standards, and architecture. If you're new to networking and to Cisco IOS, consider taking the full version ICND1 and ICND2 classes.

PLEASE NOTE: This class is accelerated and full of hands-on exercises, so be prepared. Class begins each day at 8:00 AM and ends between 5pm and 6pm, sometimes later into the evening.

This intense 5 day course is a combination of the Cisco ICND1 (5 days) and the ICND2 (5 days) courses. These courses replace INTRO and ICND. Topics covered in ICND1 and ICND2 include security, troubleshooting and basic wireless labs and more time devoted to performance-based skills with 30%- 50% of each course dedicated to hands-on labs.

### **Course Outline**

#### Module 1: Building a Simple Network (ICND1)

- Exploring the Functions of Networking
- Securing the Network
- Host-to-Host Communication Model
- TCP/IP's Internet Layer
- TCP/IP's Transport Layer
- Packet Delivery Process
- Understanding Ethernet
- Connecting to an Ethernet LAN

#### Module 2: Ethernet LANs (ICND1)

- Challenges of Shared LANs
- Solving Network Challenges with Switched LAN Technology
- Packet Delivery Process
- Operating Cisco IOS Software
- Starting the Switch
- Understanding Switch Security
- Maximizing the Benefits of Switching
- Troubleshooting Switch Issues

#### Module 3: Wireless Local Area Networks (WLANS) (ICND1)

- Exploring Wireless Networking
- Understanding WLAN Security
- Implementing a WLAN

#### Module 4: LAN Connections (ICND1)

- Functions of Routing
- Understanding Binary Basics
- Constructing a Network Addressing Scheme
- Starting a Router
- Configuring a Router

- Packet Delivery Process
- Understanding Router Security
- Using Cisco Router and Security Device Manager
- Using a Router as a DHCP Server
- Accessing Remote Devices

Module 5: Network Environment Management (ICND1)

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

Module 6: Small Network Implementation (ICND2)

- Review Lab: Review of a Small Network Environment

Module 7: Medium-Sized Switched Network Construction (ICND2)

- Implementing VLANs and Trunks
- Improving Performance with Spanning Tree
- Routing Between VLANs
- Securing the Expanded Network
- Troubleshooting Switched Networks

Module 8: Wide Area Networks (WANs) (ICND1)

- WAN Technologies
- Enabling the Internet Connection
- Enabling Static Routing
- Configuring Serial Encapsulation
- Enabling Routing Information Protocol (RIP)

Module 9: LAN Extension into a WAN (ICND2)

- Establishing a Point-to-Point WAN Connection with PPP
- Establishing a WAN Connection with Frame Relay
- Troubleshooting Frame Relay WANs
- Introducing VPN Solutions

Module 10: Medium-Sized Routed Network Construction (ICND2)

- Reviewing Routing Operations
- Implementing VLSM

Module 11: Single Area OSPF Implementation (ICND2)

- Implementing OSPF
- Troubleshooting OSPF

Module 12: EIGRP Implementation (ICND2)

- Implementing EIGRP
- Troubleshooting EIGRP

Module 13: Access Control Lists (ACLs) (ICND2)

- Introducing ACL Operation



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- Configuring and Troubleshooting ACLs

Module 14: Address Space Management (ICND2)

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