

Course 7306-0200

CCNA

Duration: 5 days

This course helps prepare you for the **Cisco Certified Network Associate Exam (CCNA)** exam **640-802**. By passing this exam, you qualify as a **Cisco Certified Network Associate (CCNA)**.

Pre-requisites: You should have a basic knowledge of PC configuration consistent with having gained A+ certification. Prior networking experience is desirable but not essential.

Module 1 Review of Networking

Network Fundamentals
Network Protocols and the OSI 7-Layer Model
LAN Technologies
Wireless LANs
WAN Technologies

Module 2 Cisco Network Devices

The Cisco Hierarchical Model of Networking
The Cisco Catalyst 2960-48TT-L Switch
The Cisco 2811 Router
Cisco Cables

Module 3 Networking with TCP/IP

The TCP/IP Protocol Suite
The Internet Layer
The Transport Layer
The Application Layer
TCP/IP Sockets

Module 4 IP Addressing and Routing

IP Addressing
Subnetting
Written Lab 4.1
Classless IP Addressing
Written Lab 4.2
IP Routing
Written Lab 4.3
Problems with IP Version 4 Addressing
IP Version 6 (IPv6)

Module 5 IP Routing Protocols

Routing Tables
RIP (Routing Information Protocol)
IGRP (Interior Gateway Routing Protocol)
OSPF (Open Shortest Path First)
EIGRP (Enhanced IGRP)
Load Balancing across Equal-Cost Paths
Written Lab 5.1
Classless Inter-Domain Routing (CIDR)
Classless and Classful IP Routing Protocols

Module 6 Basic Router Configuration

Hardware Components
Software Components
The Configuration File
The Boot Sequence

The IOS Command Line Interface (CLI)
Configuring the Router from the CLI
Viewing Basic Router Information
Managing IOS Software Images
Managing Configuration Files
Initial Router Configuration

Module 7 Initial Router Administration

Basic Security Configuration
Basic Interface Configuration
Verifying Configurations
Testing Network Connectivity
Connectivity

Module 8 Building Routed Networks

Configuring Static Routes
Configuring RIPv2
Configuring OSPF
Configuring EIGRP

Module 9 Security and Network Address Translation

IP Access Control Lists
Network Address Translation (NAT)
Configuring a Router as a DHCP Server
Virtual Private Network (VPN) Security

Module 10 Serial Line Configuration

HDLC (High-Level Data Link Control)
PPP (Point-to-Point Protocol)
Basic PPP and HDLC Configuration
PPP Authentication
Verifying and Troubleshooting Serial Connections

Module 11 Frame Relay Configuration

Frame Relay Networks
Basic Frame Relay Configuration
Verifying Frame Relay Configurations
Troubleshooting Frame Relay Configurations
Frame Relay Topologies
Frame Relay

Module 12 Cisco Layer 2 Switching

Layer 2 Switching – Basic Operation
Spanning Tree Protocol (STP)
Spanning Tree Protocol Enhancements

Module 13 Basic Switch Configuration

Setting the Hostname
Addressing Information
Port Configuration
Managing the MAC Address Table
Configuring the Spanning Tree Protocol
Security Configuration
Managing Configuration Files
Installing New IOS Software

Module 14 VLAN Configuration

VLAN Switches – Basic Operation
Manual VLAN Configuration
Configuring a Trunk Port on a 2960 series Switch
Dynamic Port Assignment
VLAN Trunking Protocol (VTP)