

## **CCNA.CCNP Course Content:35-40hours**

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### Course Outline

#### **CCNA**

##### **CCNA 01**

- Introduction to Networking
- Networking Fundamentals
- Networking Media
- Cable Testing
- Cabling Lans and Wans
- Ethernet Fundamentals
- Ethernet Technologies
- Ethernet Switching
- TCP/IP Protocol Suite and IP Addressing
- Routing Fundamentals and Subnets
- TCO/IP Transport and Application Layer

##### **CCNA 02**

- Wans and Routers
- Introduction to Routers
- Configuring a Router
- Learning about other Devices
- Managing Cisco IOS Software
- Routing and Routing Protocols
- Distance Vector Routing Protocols
- TCP/IP Suit Error and Control Messages
- Basic Router Troubleshooting
- Intermediate TCP/IP
- Acces Control Lists (ACLS)

##### **CCNA 03**

- Introduction to Classless Routing

- Single-Area OSPF
- EIGRP
- Switching Concepts
- Switches
- Switch Configuration
- Spanning Tree Protocol
- Virtual Lans
- Virtual Trunking Protocol

#### CCNA 04

- Scaling IP Addresses
- Wan Technologies
- PPP
- ISDN and DDR
- Frame Relay
- Introduction to Network Administration

## CCNP - Advanced Routing

#### CCNP 01

- Overview of Scalable Internetworks
- Advanced IP Addressing Management
- Routing Overview
- Routing Information Protocol
- EIGRP
- OSPF
- IS-IS
- Route Optimization
- Routing Overview

#### CCNP 02

- Wans
- Modems and ASYNC Connections
- PPP
- ISDN and DDR
- Dialer Profiles
- Frame Relay
- Managing Frame Relay Traffic
- Wan Backup

- Managing and Optimizing Traffic
- Scaling IP Addressing with NAT
- Using AAA Scale Access Control
- Broadband Connections
- Virtual Private Network

## **CCNP - Multilayer Switching**

### **CCNP 03**

- Designing a Network Using the Campus Infrastructure Module
- Defining VLANs
- Implementing Spanning Tree
- Spanning Tree Enhancements
- Implementing Multilayer Switching
- Implementing Redundancy in The Routing Layer
- Minimizing Service Loss and Data Theft in a Switched Network
- Configuring Campus Switches to Support Voice and Video Applications

## **CCNP - Network Troubleshooting**

### **CCNP 04**

- Documenting and Baselining The Network Overview
- Troubleshooting Methodologies and Tools
- Troubleshooting at The Physical Layer
- Layer 2 Troubleshooting
- Layer 3 Troubleshooting
- Layer 4 Troubleshooting
- Layer 1-7 Troubleshooting