

Course Name : CCNA

Course Time : 52 Hrs.

Course Prerequisites : Netwrk+

Title :

❖ **Networking Fundamentals**

- The TCP/IP and OSI Networking Models
- Fundamentals of Ethernet LAN
- Fundamentals of WANs
- Fundamentals of IPv4 Addressing and Routing
- Fundamentals of TCP/IP Transport and Applications

❖ **Ethernet LANs and Switches**

- Building Ethernet LANs with Switches
- Installing and Operating Cisco LAN Switches
- Configuring Ethernet Switching
- Implementing Ethernet Virtual LANs
- Troubleshooting Ethernet LANs

❖ **IP Version 4 Addressing and Subnetting**

- Perspectives on IPv4 Subnetting
- Analyzing Classful IPv4 Networks
- Analyzing Subnet Masks
- Analyzing Existing Subnets

❖ **Implementing IP Version 4**

- Operating Cisco Routers
- Configuring IPv4 Addresses and Routes
- Learning IPv4 Routes with OSPFv2
- Configuring and Verifying Host Connectivity

❖ **Advanced IPv4 Addressing Concepts**

- Subnet Design
- Variable-Length Subnet Masks
- Route Summarization

❖ **IPv4 Services**

- Basic IPv4 Access Control Lists
- Advanced IPv4 ACLs and Device Security
- Network Address Translation

❖ **IP Version 6**

- Fundamentals of IP Version 6
- IPv6 Addressing and Subnetting
- Implementing IPv6 Addressing on Routers
- Implementing IPv6 Addressing on Hosts
- Implementing IPv6 Routing

❖ **Part I: LAN Switching**

- Spanning Tree Protocol Concepts
- Spanning Tree Protocol Implementation
- Troubleshooting LAN Switching

❖ **IP Version 4 Routing**

- Troubleshooting IPv4 Routing Part I
- Troubleshooting IPv4 Routing Part II
- Creating Redundant First-Hop Routers
- Virtual Private Networks

❖ **IP Version 4 Routing Protocols**

- Implementing OSPF for IPv4
- Understanding EIGRP Concepts
- Implementing EIGRP for IPv4
- Troubleshooting IPv4 Routing Protocols

❖ **Wide Area Networks**

- Implementing Point-to-Point WANs
- Understanding Frame Relay Concepts
- Implementing Frame Relay
- Identifying Other Types of WANs

❖ **IP Version 6**

- Troubleshooting IPv6 Routing
- Implementing OSPF for IPv6
- Implementing EIGRP for IPv6

❖ **Network Management**

- Managing Network Devices
- Managing IOS Files
- Managing IOS Licensing

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