

CCNA Training – 15 Module Curriculum

Cisco CCNA (200-301) aligned curriculum with strong fundamentals, hands-on labs, and real-world networking skills.

Module 1: Networking Fundamentals

- What is networking
- Types of networks (LAN, WAN, MAN)
- OSI vs TCP/IP models
- Network devices overview

Module 2: Network Components & Cabling

- Routers, switches, firewalls
- Copper and fiber cables
- Speed and duplex
- Hands-on cable types

Module 3: Ethernet & Switching Basics

- MAC addresses
- Switch operation
- Collision vs broadcast domains
- ARP process

Module 4: VLANs & Trunking

- VLAN concepts
- Access vs trunk ports
- 802.1Q tagging
- Inter-VLAN routing

Module 5: IP Addressing & Subnetting

- IPv4 addressing
- CIDR and subnetting
- VLSM
- Hands-on subnet calculations

Module 6: Routing Fundamentals

- Static routing
- Default routes
- Routing table concepts

Module 7: Dynamic Routing Protocols

- RIP overview
- OSPF fundamentals
- Metric and convergence

Module 8: Wireless Networking

- 802.11 standards
- Wireless security
- WLAN components

Module 9: Network Security Fundamentals

- CIA triad
- Firewalls
- IDS vs IPS
- Basic ACL concepts

Module 10: Access Control Lists (ACLs)

- Standard ACLs
- Extended ACLs
- ACL placement
- Hands-on ACL configuration

Module 11: NAT & WAN Technologies

- NAT types
- WAN technologies
- PPP basics

Module 12: QoS & Network Services

- DHCP
- DNS

- NTP
- QoS fundamentals

Module 13: Network Automation & Programmability

- Network automation basics
- APIs and REST
- CLI vs controller-based networking

Module 14: Monitoring, Troubleshooting & Tools

- Ping and traceroute
- SNMP
- Syslog
- Troubleshooting methodology

Module 15: CCNA Exam Prep & Capstone Lab

- Exam overview (200-301)
- Practice scenarios
- Capstone: Build and troubleshoot a network