Information Technology

Cisco Certified Network Professional (CCNP) Enterprise

Course Introduction

This course provides in-depth training on core enterprise networking concepts required to manage, secure, and automate modern networks. It is designed for professionals seeking to enhance their Cisco networking skills and prepares them for the 350-401 ENCOR certification exam — the foundational requirement for CCNP Enterprise and other advanced Cisco certifications.

Participants will develop hands-on expertise in dual-stack architecture (IPv4 and IPv6), virtualization, infrastructure, network assurance, security, and automation through a blend of theoretical knowledge and lab-based activities.

Target Audience

- Network engineers and administrators working in enterprise environments
- IT professionals preparing for the Cisco CCNP ENCOR certification
- Network support specialists looking to advance into implementation roles
- System engineers seeking to expand their Cisco networking knowledge

Learning Objectives

- Design, configure, and troubleshoot complex enterprise networks.
- Implement core routing and switching technologies.
- Deploy enterprise wireless infrastructure and security mechanisms.
- Apply automation tools to streamline network operations.
- Prepare confidently for the Cisco 350-401 ENCOR exam

Course Outline

- **DAY 01**

  Enterprise Network Architecture & Virtualization

  - Enterprise network design models (3-tier, spine-leaf)
  - High availability and redundancy techniques (FHRP, SSO, StackWise)
  - Virtualization concepts: VRF, GRE, VPNs, L2 and L3 virtualization
  - SD-WAN and SD-Access fundamentals

- **Day 02**

  Switching, Routing, and IP Connectivity

  - Switching concepts: VLANs, trunking, EtherChannel, STP
  - Routing protocols: OSPFv2/v3, EIGRP, and BGP basics
  - Route summarization and filtering
  - IPv4 and IPv6 address planning and subnetting
  - Troubleshooting Layer 2 and Layer 3 connectivity

- **Day 03**

  Network Services and Wireless Technologies

  - Network services: NAT, NTP, DHCP, and multicast (IGMP, PIM)
  - Quality of Service (QoS): classification, marking, queuing
  - Wireless architectures: centralized, distributed, controller-less
  - Wireless roaming, RF fundamentals, client connectivity
  - Wireless authentication and guest access solutions

- **Day 04**

  Network Security and Infrastructure Protection

  - Securing infrastructure devices and control plane protocols
  - Implementing AAA, RADIUS, and TACACS+
  - Access control lists (ACLs) and segmentation techniques
  - Device hardening, secure management, and password policies
  - Network telemetry and monitoring tools

- **Day 05**

Automation, Programmability & Exam Preparation

- Introduction to network automation and programmability
- Understanding APIs, RESTCONF, NETCONF
- Using Cisco DNA Center and automation scripts (Python basics)
- Review of key exam domains
- Practice exam questions and exam readiness tips

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 26, 2025	May 30, 2025	5 days	4250.00 $	UAE - Dubai
Aug. 25, 2025	Aug. 29, 2025	5 days	4950.00 $	England - London
Oct. 2, 2025	Oct. 6, 2025	5 days	4250.00 $	UAE - Abu Dhabi