

Cisco Certified Network Associate (CCNA)

Course Overview

Cisco Certified Network Associate (CCNA) validates the knowledge and skills required to install, configure, operate, and troubleshoot medium-sized routed and switched networks. This comprehensive course prepares you to understand and implement the core networking technologies focused on Cisco equipment.

Prerequisites

- Basic understanding of computer networking concepts
- Familiarity with operating systems (Windows, Linux)
- No prior Cisco experience required, but helpful
- CompTIA Network+ certification or equivalent knowledge recommended

Tools and Technologies

Cisco Packet Tracer, Cisco IOS, GNS3, Wireshark, Real Cisco equipment (routers, switches)
Command-line interfaces

Course Features

Routing & Switching

Troubleshooting

Network Configuration

Duration: 8 Weeks

Level: Intermediate

Certification: Included

Why Choose This Course

- Comprehensive coverage of the complete CCNA 200-301 exam objectives
- Hands-on training with both simulators and real Cisco equipment
- Experienced instructors with active industry experience

- Structured learning path from fundamentals to advanced concepts
- Practice exams and assessment aligned with actual CCNA exam format
- Small class sizes for personalized attention
- Post-course support through exam preparation resources

Career Opportunities

- Network Administrator
- Network Engineer
- Systems Engineer
- Network Support Specialist
- Network Analyst
- IT Network Technician
- Infrastructure Engineer

Course Curriculum

Module 01: Network Fundamentals

- Network Components and Architectures
- Network Access Models (TCP/IP, OSI)
- Physical Networking and Network Topologies
- IPv4 and IPv6 Addressing and Subnetting

Module 02: Network Access

- VLANs and Trunking
- Layer 2 Discovery Protocols
- EtherChannel and Spanning Tree Protocol
- Wireless LAN Architecture

Module 03: IP Connectivity

- Router Configuration
- Static and Default Routing

- OSPF (Single-Area and Multi-Area)
- Advanced Routing Concepts

Module 04: IP Services

- DHCP and DNS
- Network Address Translation (NAT)
- Network Time Protocol (NTP)
- Quality of Service (QoS)
- Network Management Protocols

Module 05: Security Fundamentals

- Security Concepts and Threats
- Access Control Lists (ACLs)
- Layer 2 Security Features
- Device Access Control and Password Security

Module 06: Automation and Programmability

- Controller-Based Networking
- Cisco DNA Center
- REST APIs and JSON
- Configuration Management Tools

Module 07: CCNA Lab Scenarios

- Enterprise Network Design and Setup
- Troubleshooting Methodologies
- Comprehensive Network Configuration
- Exam Preparation and Review

Certification

Upon course completion, participants will be prepared to take the Cisco Certified Network Associate (CCNA) exam 200-301. This globally recognized certification validates your skills with Cisco networking technologies and serves as a foundation for more specialized Cisco certifications.

Certification Benefits

- Industry-recognized credential
- Enhanced job opportunities and career growth
- Validation of specialized skills and knowledge
- Increased earning potential
- Demonstrates commitment to professional development

Frequently Asked Questions

Is CCNA suitable for beginners in networking?

While CCNA is not an entry-level certification, our course is structured to accommodate learners with basic networking knowledge. We start with fundamentals and progressively move to more advanced concepts. For absolute beginners, we recommend first completing a Network+ course or equivalent training before pursuing CCNA.

Does this course use real Cisco equipment or just simulators?

Our course utilizes both approaches. You'll work with simulators like Packet Tracer and GNS3 for extensive practice without hardware limitations, but you'll also gain hands-on experience with actual Cisco routers and switches in our lab environment to develop the tactile skills needed in real-world scenarios.

How long is the CCNA certification valid?

The CCNA certification is valid for three years from the date you pass the exam. To maintain your certification after this period, you can either retake the current CCNA exam or earn higher-level Cisco certifications that automatically renew your CCNA.

What career paths does CCNA certification support?

CCNA certification prepares you for roles such as Network Administrator, Network Engineer, Network Support Technician, and Systems Engineer. It also serves as a foundation for more

specialized Cisco certifications in areas like security (CCNP Security), data center (CCNP Data Center), or enterprise infrastructure (CCNP Enterprise).

How does the new CCNA 200-301 differ from previous versions?

The current CCNA 200-301 consolidates knowledge from several previous CCNA specializations into a single certification. It adds new content on network programmability, automation, and software-defined networking while maintaining core routing and switching topics. This more comprehensive approach better aligns with modern network environments.