Cisco Certified Network Associate

CCNA Version 7.0 Course Overview

The new networking is here. Technology that enables automation and intent-based networking are fundamentally expanding what the network does and the role it plays. In order to unleash the full capabilities of the new network, the industry needs people with the skills to manage it. This networking technology evolution is what's driving the redesign of Cisco Certification program and enhancements to the Networking Academy courses, including CCNA.

The CCNA Version 7 Curriculum is the best yet!

The courses in the CCNA Version 7.0 curriculum help students develop a comprehensive foundation for designing, securing, operating, and troubleshooting modern computer networks, on the scale from small business networks to enterprise networks, with an emphasis on hands-on learning and essential career skills like problem solving and collaboration.

By the end of the CCNA course series, students gain practical, hands-on experience preparing them for the CCNA certification exam and career-ready skills for associate-level roles in the Information & Communication Technologies (ICT) industry.

CCNA Version 7 comprises of 3 modules:

1. Introduction to Networks (ITN)
2. Switching, Routing, and Wireless Essentials (SRWE)
3. Enterprise Networking, Security, and Automation (ENSA)

Associate Level

CISCO CERTIFIED CCNA

One Exam

All the courses have

- Hands-on labs
- Cisco Packet Tracer network simulation activities
- Videos, activities, and quizzes reinforce learning
- Assessments to measure learning outcomes
- Assessment features to ensure exam security and integrity

The NetAcad curriculum has evolved to stay aligned with the new CCNA Certification exams (200 – 301)

Features

Target Audience: Students interested in pursuing an IT-related career

Course Delivery: Instructor-led

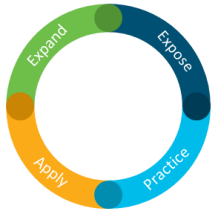
Estimated Time to Complete: 200 hours

Recommended Next Course: CCNP Enterprise Core, CCNA CyberOps, DevNet Associate

Certification Aligned

CCNA: Introduction to Networks (ITN)

CCNAv7: Introduction to Networks (ITN) covers the architecture, structure, functions and components of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP).



By the end of the course, students will be able to:

- Configure switches and end devices to provide access to local and remote network resources.
- Explain how physical and data link layer protocols support the operation of Ethernet in a switched network.
- Configure routers to enable end-to-end connectivity between remote devices.
- Create IPv4 and IPv6 addressing schemes and verify network connectivity between devices.
- Explain how the upper layers of the OSI model support network applications.
- Configure a small network with security best practices.
- Troubleshoot connectivity in a small network.

The 70-hour, instructor-led course is the 1st of 3 modules in the Cisco CCNA v7 curriculum. The course includes activities using Packet Tracer, hands-on lab work, and a wide array of assessment types and tools.

CCNA: Switching, Routing, and Wireless Essentials (SRWE)

CCNAv7: Switching, Routing, and Wireless Essentials (SRWE) covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks.

By the end of the course, students will be able to:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.
- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

The 70-hour, instructor-led course is the 2nd of 3 modules in the Cisco CCNA v7 curriculum. The course includes activities using Packet Tracer, hands-on lab work, and a wide array of assessment types and tools.

CCNA: Enterprise Networking, Security, and Automation (ENSA)

CCNAv7: Enterprise Networking, Security, and Automation (ENSA) describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. The course emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation.

By the end of this course, students will be able:

- Configure single-area OSPFv2 in both point-to-point and multiaccess networks.
- Explain how to mitigate threats and enhance network security using access control lists and security best practices.
- Implement standard IPv4 ACLs to filter traffic and secure administrative access.
- Configure NAT services on the edge router to provide IPv4 address scalability.
- Explain techniques to provide address scalability and secure remote access for WANs.
- Explain how to optimize, monitor, and troubleshoot scalable network architectures.
- Explain how networking devices implement QoS.
- Implement protocols to manage the network.
- Explain how technologies such as virtualization, software defined networking, and automation affect evolving networks.

The 70-hour, instructor-led course is the 3rd of 3 modules in the Cisco CCNA v7 curriculum. The course includes activities using Packet Tracer, hands-on lab work, and a wide array of assessment types and tools.

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