

Course Training

Cisco Certified Support Technician (CCST Networking [100-150])

Course Content

The Cisco Networking Essentials course is designed to prepare you for Cisco Certified Support Technician (CCST Networking) exam. This course covers the basics of networking, including how networks function, the role of network devices, and the use of various applications and protocols. Students will learn about assigning IP addresses manually and automatically, as well as how these addresses are calculated and assigned. The course explores how different layers of networking (physical, data link, and network) work together to establish connectivity.

Course Objectives

- Cisco CCST Networking Exam contents
- Network Types, Components, and Connections:
- Configuring Mobile Devices for Wireless Access:
- Configuring Integrated Wireless Router and Wireless Client for Secure Internet Connection:
- Importance of Standards and Protocols in Network Communications:
- Common Network Media:
- Communication on Ethernet Networks:
- Features of an IP Address:
- IPv4 and IPv6 Addressing:
- Configuring a DHCP Server:
- Routers Connecting Networks:
- ARP (Address Resolution Protocol):
- Fully Connected LAN:
- Clients Accessing Internet Services:
- Application Layer Services
- Testing and Troubleshooting Network Connectivity:
- Hierarchical Network Design:
- Virtualization and Cloud Services:
- Decimal, Binary, and Hexadecimal Systems:
- Ethernet Operation in Switched Networks:
- Physical and Logical Network Communications:
- Subnetting and IPv6 Addressing:
- Neighbor Discovery (ND):
- Cisco Routers and Switches:

- Troubleshooting Network Connectivity Issues:
- Common Threats, Vulnerabilities, and Attacks:
- Secure User Access:

Course Prerequisite

Cisco CCST Networking Certification, a basic understanding of how to use a computer and browse the internet.

Who should attend

- High school, secondary and 2-year college vocational students.
- IT and non-IT fields university students, career changers.

Course Outline

- Communications in a Connected World
- Network Components, Types, and Connections
- Wireless and Mobile Networks
- Build a Home Network
- Communication Principles
- Network Media
- The Access Layer
- The Internet Protocol
- IPv4 and Network Segmentation
- IPv6 Addressing Formats and Rules
- Dynamic Addressing with DHCP
- Gateways to Other Networks
- The ARP Process
- Routing Between Networks
- TCP and UDP
- Application Layer Services
- Network Testing Utilities
- Network Design

- Cloud and Virtualization
- Number Systems
- Ethernet Switching
- Network Layer
- IPv4 Address Structure
- Address Resolution
- IP Addressing Services
- Transport Layer
- The Cisco IOS Command Line
- Build a Small Cisco Network
- ICMP
- Physical Layer
- Data Link Layer
- Routing at the Network Layer
- IPv6 Addressing
- Cisco Switches and Routers
- Troubleshoot Common Network Problems
- Network Support
- Cybersecurity Threats, Vulnerabilities, and Attacks
- Network Security Configure secure user access on a network.