



CompTIA Network+

Duration 5 Days



COURSE OVERVIEW

CompTIA Network+ is a vendor neutral networking certification that is trusted around the world. It validates the essential knowledge and skills needed to confidently design, configure, manage and troubleshoot any wired and wireless networks. CompTIA Network+ certified individuals are in-demand worldwide.

The student will describe the major networking technologies, systems, skills, and tools in use in modern networks. Taking this course will help the student prepare for the N10-006 exam and certification.

TARGET AUDIENCE

This course is intended for entry-level computer support professionals with a basic knowledge of computer hardware, software, and operating systems who wish to increase their knowledge and understanding of networking concepts and acquire the required skills to prepare for a career in network support or administration, or who wish to prepare for the CompTIA Network+ certification (Exam N10-006). A typical student taking the CompTIA® Network+® (Exam N10-006) course should have a minimum of nine months of professional computer support experience as a PC or help desk technician. Networking experience is helpful but not mandatory; A+ certification or equivalent skills and knowledge is helpful but not mandatory.

COURSE OBJECTIVES

- Identify basic network theory concepts and major network communications methods.
- Describe bounded network media.
- Identify unbounded network media.
- Identify the major types of network implementations.
- Identify TCP/IP addressing and data delivery methods.
- Implement routing technologies.
- Identify the major services deployed on TCP/IP networks.
- Identify the infrastructure of a WAN implementation.
- Identify the components used in cloud computing and virtualization.
- Describe basic concepts related to network security.
- Prevent security breaches.
- Respond to security incidents.
- Identify the components of a remote network implementation.
- Identify the tools, methods, and techniques used in managing a network.
- Describe troubleshooting of issues on a network.

COURSE OUTLINE

1 - NETWORK THEORY

- Networking Overview
- Network Standards and the OSI Model
- Network Types
- Identify Network Configurations
- Data Transmission Methods

2 - BOUNDED NETWORK MEDIA

- Copper Media
- Fiber Optic Media
- Bounded Network Media Installation
- Noise Control

3 - UNBOUNDED NETWORK MEDIA

- Wireless Networking
- Wireless Network Devices and Components
- Install a Wireless Network

4 - NETWORK IMPLEMENTATIONS

- Physical Network Topologies
- Logical Network Topologies
- Ethernet Networks
- Network Devices
- VLANs

5 - TCP/IP ADDRESSING AND DATA DELIVERY

- The TCP/IP Protocol Suite
- IPv4 Addressing
- Default IP Addressing Schemes
- Create Custom IP Addressing Schemes
- IPv6 Address Implementation
- Delivery Techniques

6 - ROUTING

- Enable Static Routing
- Implement Dynamic IP Routing

7 - TCP/IP SERVICES

- Assign IP Addresses
- Domain Naming Services
- TCP/IP Commands
- Common TCP/IP Protocols

8 - WAN INFRASTRUCTURE

- WAN Basics
- WAN Connectivity Methods
- WAN Transmission Technologies
- Unified Communication Technologies

9 - CLOUD AND VIRTUALIZATION TECHNOLOGIES

- Virtualization
- SAN Implementations

- Cloud Computing

10 - NETWORK SECURITY BASICS

- Introduction to Network Security
- Vulnerabilities
- Threats and Attacks
- Authentication Methods
- Encryption Methods

11 - PREVENTING SECURITY BREACHES

- Physical Security Controls
- Network Access Controls
- Install and Configure Firewalls
- Harden Networks
- Intrusion Detection and Prevention
- Educate Users

12 - RESPONDING TO SECURITY INCIDENTS

- Incident Management and Response
- Basic Forensic Concepts

13 - REMOTE NETWORKING

- Remote Network Architectures
- Remote Access Networking Implementations
- Virtual Private Networking
- VPN Protocols

14 - NETWORK MANAGEMENT

- Network Monitoring
- Configuration Management Documentation
- Network Performance Optimization

15 - TROUBLESHOOTING NETWORK ISSUES

- Network Troubleshooting Models
- Network Troubleshooting Utilities
- Hardware Troubleshooting Tools
- Common Connectivity Issues
- Troubleshoot Security Configuration Issues
- Troubleshoot Security Issues