

Who Should Attend:

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.

Lesson 1: Network Theory

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

Lesson 2: Bounded Network Media

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

Lesson 3: Unbounded Network Media

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

Lesson 4: Network Implementations

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

Lesson 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

Lesson 6: Routing

- Enable Static Routing
- Implement Dynamic IP Routing

Lesson 7: TCP/IP Services

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

Lesson 8: WAN Infrastructure

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

Lesson 9: Cloud and Virtualization Technologies

- Virtualization
- SAN Implementations
- Cloud Computing

Lesson 10: Network Security Basics

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

Lesson 11: Preventing Security Breaches

- Physical Security Controls
- Network Access Controls

- Install and Configure Firewalls
- Harden Networks
- Intrusion Detection and Prevention
- Educate Users

Lesson 12: Responding to Security Incidents

- Incident Management and Response
- Basic Forensic Concepts

Lesson 13: Remote Networking

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

Lesson 14: Network Management

- Network Monitoring
- Configuration Management Documentation
- Network Performance Optimization

Lesson 15: Troubleshooting Network Issues

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

Lesson 16: Appendix

- Appendix A: Mapping Course Content to the CompTIA Network+ Exam
- Appendix B: Network Fault Tolerance and Disaster Recovery
- Appendix C: Planning and Implementing a SOHO Network
- Appendix D: Legend for Icons Used in Network+ Figures