



CompTIA Certification

NET+006: CompTIA Network+

Your next step in CompTIA Certification. Learn the basics as well as more complex principles required to install and maintain corporate networks in this CompTIA Network + course. This live class is available virtually with [Remotelive™](#) or locally at our Phoenix, AZ location.

\$2,795.00

- 5 Days
- Advance Your IT skills
- 24/7 Access to Online Labs During Class Week

Upcoming Dates

Course Description

This 5-day course is designed to provide network professionals and supporting technicians with the foundation-level skills they need to install, operate, manage, maintain, and troubleshoot a small to medium-sized business network. The objective is to help prepare students for the CompTIA Network+ Certification Essentials exam. It is important that students have the recommended work experience in IT networking prior to taking the exam. CompTIA recommends that students have 9 to 12 months of experience in the IT support industry. This course prepares for the [CompTIA NET+ Certification Exam N10-006](#).

Course Outline

Module 1 – Network Media and Devices

Topologies and the OSI Model

- Key Features of Networks
- Network Topologies
- The OSI Model
- TCP/IP Protocol Suite

Cabling and Connectors

- Selecting Network Cable
- Twisted Pair Cable (UTP / STP / ScTP)
- Coaxial Cable
- Fiber Optic Cable
- Repeaters
- Media Converters
- Serial Cable

Ethernet

- IEEE 802 Standards
- Media Characteristics

- Ethernet (IEEE 802.3)
- MAC Addressing
- Network Adapters
- Protocol Analyzer

Bridge and Switches

- Hubs
- Bridges
- Switches
- Virtual LANs (VLAN)
- Spanning Tree Protocol (STP)

Module 2 – Addressing and Routing Internet Protocol

Internet Protocol Basics

- Configuring TCP/IP
- IP Routing Basics
- ICMP

Addressing Schemes

- IP Addressing Schemes
- Creating Subnets
- Internet Addressing

DHCP and APIPA

- Static versus Dynamic IP Addressing
- Configuring DHCP

IPv6

- IPv6 Address Format
- IPv6 Addressing Schemes

Routing

- Routing Basics
- Routing Algorithms and Metrics
- Routing Protocols
- Installing and Configuring Routers
- Routing Troubleshooting Tools
- Internet Group Management Protocol

Module 3 – Network Applications

Transport Protocols

- Transmission Control Protocol (TCP)
- User Datagram Protocol (UDP)
- TCP/IP Ports
- Port Scanners

Name Resolution

- Host Names
- Name Resolution Methods
- Configuring DNS Servers
- Name Resolution Troubleshooting

Web Services

- TCP/IP Services
- World Wide Web (HTTP)
- File Transfer Protocol (FTP)
- Network Time Protocol (NTP)

Communication Services

- Email (SMTP / POP3 / IMAP)
- Conferencing and VoIP Protocols

WAN Technologies

- WAN Basics
- Telecommunications Networks
- Packet-switched WAN Services
- Local Loop Services
- Installing Modems

Remote Access

- Remote Connectivity Protocols
- Virtual Private Networks
- Remote Access Servers

Module 4 – Network Security

Security Fundamentals

- Security Basics
- Social Engineering
- Malware
- Network Attack Strategies
- Policies and Procedures
- Device Security
- Training

Security Appliances

- Secure Network Topologies
- Network Address Translation
- Firewalls and Proxy Servers
- Intrusion Detection Systems
- Vulnerability Assessments and Pentests

Authentication

- Authentication Technologies

- Encryption and PKI
- Authentication Protocols
- Network Access Control

Installing Wireless Networks

- Wi-Fi (IEEE 802.11)
- Setting Up a Wireless Network
- Wireless Security
- Wireless WANs

Module 5 – Management, Monitoring, Troubleshooting

Configuration Management

- Configuration Management Concepts
- Documentation

Installing Wired Networks

- Planning a SOHO Network Installation
- Wiring Standards
- Wiring Distribution
- Cable Testing Tools

Deploying Virtual Networks

- Virtualization Technologies
- Virtual Platform Applications
- Cloud Computing

Monitoring and Management Tools

- Performance Management Appliances
- Network Monitoring Utilities
- Simple Network Management Protocol
- Remote Administration Tools

Network Troubleshooting

- Troubleshooting Procedures
- Troubleshooting Common Connectivity Scenarios

Audience

If you are a new or potential network support person, or you desire to obtain the CompTIA Network+ certification, this course is for you. If you are currently working in the field and require an industry-backed and supported credential to validate your skillset, this course fills that role as well.

Prerequisites

To obtain maximum benefit from attending this course, you should have the following experience, skills, and certification prior to taking this course:

- CompTIA A+ certification

[A565: CompTIA A+ Certification 801 Support Skills \(2012 Objectives\)](#)

[A575: CompTIA A+ Certification 802 Support Skills \(2012 Objectives\)](#)

- Six months to one year of A+ related on-the-job experience
- People-skills earned from supporting end-users of PC-based workstations

While the above items are not mandatory, your take-away from this class will be greatly enhanced by having them.

What You Will Learn

This course will teach you the basic, as well as more complex, principles required to install and maintain corporate networks. Upon completing this course you will know well the following:

- Monitor, manage, support, and troubleshoot networks
- Understand and accurately describe features of various network protocols and vendor-neutral products used in LANs, WANs, and wireless network environments
- Identify and appropriately react to network security threats
- Understand the configuration and functionality of TCP/IP addressing and related protocols
- Install and maintain network appliances and cabling