COMPTIA NETWORK+

Course: IFN+; Duration: 5 Days/35 hours; Instructor-led/ Remote Online Training

Time: 9.00am – 5.00pm
Break: 10.15am – 10.30am /3.15pm – 3.30pm
Lunch: 1.00pm – 2.00pm

WHAT YOU WILL LEARN

The *CompTIA® Network+® (Exam N10-006)* course builds on your existing user-level knowledge and experience with personal computer operating systems and networks to present the fundamental skills and concepts that you will need to use on the job in any type of networking career. If you are pursuing a CompTIA technical certification path, the CompTIA® A+® certification is an excellent first step to take before preparing for the CompTIA Network+ certification.

The *CompTIA® Network+® (Exam N10-006)* course can benefit you in two ways. It can assist you if you are preparing to take the CompTIA Network+ examination (Exam N10-006). Also, if your job duties include network troubleshooting, installation, or maintenance, or if you are preparing for any type of network-related career, it provides the background knowledge and skills you will require to be successful.

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.

METHODOLOGY

This program will be conducted with interactive lectures, PowerPoint presentations, discussions and practical lab exercises.

PREREQUISITE

To ensure your success in this course, you will need basic Windows end-user computer skills. To meet this prerequisite, you can take either of the following LogicalCHOICE courses, or have equivalent experience:

- *Using Microsoft® Windows® 8*

- *Microsoft® Windows® 8 Transition from Windows® 7*

In addition, we highly recommend that you hold the CompTIA A+ certification, or have equivalent skills and knowledge. You may want to take the LogicalCHOICE course *CompTIA® A+®: A Comprehensive Approach (Exams 220-801 and 220-802)* to gain those skills and knowledge.

COURSE OBJECTIVES

In this course, you will describe the major networking technologies and systems of modern networks, and be able to configure, manage, and troubleshoot modern networks.

You will:
- 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 OUTLINES

Module 1 Network Theory
- Networking Overview
- Network Standards and the OSI Model
- Network Types
- Identify Network Configurations
- Data Transmission Methods

Module 2 Bounded Network Media
- Copper Media
- Fiber Optic Media
- Bounded Network Media Installation
- Noise Control

Module 3 Unbounded Network Media
- Wireless Networking
- Wireless Network Devices and Components
- Install a Wireless Network

Module 4 Network Implementations
- Physical Network Topologies
- Logical Network Topologies
- Ethernet Networks
- Network Devices
- VLANs

Module 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

Module 6 Routing
- Enable Static Routing
- Implement Dynamic IP Routing

Module 7 TCP/IP Services
- Assign IP Addresses
- Domain Naming Services
- TCP/IP Commands
- Common TCP/IP Protocols

Module 8 WAN Infrastructure
- WAN Basics
- WAN Connectivity Methods
- WAN Transmission Technologies
- Unified Communication Technologies

Module 9 Cloud and Virtualization Technologies
- Virtualization
- SAN Implementations
- Cloud Computing

Module 10 Network Security Basics
- Introduction to Network Security
- Vulnerabilities
- Threats and Attacks
- Authentication Methods
- Encryption Methods

Module 11 Preventing Security Breaches
- Physical Security Controls
- Network Access Controls
- Install and Configure Firewalls
- Harden Networks
- Intrusion Detection and Prevention
- Educate Users

Module 12 Responding to Security Incidents
- Incident Management and Response
- Basic Forensic Concepts

Module 13 Remote Networking
- Remote Network Architectures
- Remote Access Networking Implementations
- Virtual Private Networking
- VPN Protocols

Module 14 Network Management
- Network Monitoring
- Configuration Management Documentation
- Network Performance Optimization

Module 15 Troubleshooting Network Issues
- Network Troubleshooting Models
- Network Troubleshooting Utilities

- Hardware Troubleshooting Tools
- Common Connectivity Issues
- Troubleshoot Security Configuration Issues
- Troubleshoot Security Issues

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

www.info-trek.com