CompTIA Network+

N10-007
Course Syllabus
29.5 Hours

Course Description
CompTIA Network+ is a widely recognized, industry certification for network administrators, network technicians, network installers, helpdesk technicians, IT cable installers, and many other professionals working with computer networks. The coursework covers the full range of network concepts and practice from theory and architecture of networks to operations and troubleshooting. This course covers the objectives for the certification exam:

- **CompTIA Network+ N10-007**

Learning Objectives
Upon completion of the course, students will understand:

- Concepts involved with network architecture including network devices, network services, network models, network cabling, network topologies and the different WAN technologies available
- Basics of configuring network services such as DHCP and DNS
- Advanced network architecture concepts including network infrastructure implementation, addressing schemas, routing, unified communications, and cloud computing and virtualization
- Methods and tools used in the operations of a network, including tools used in network monitoring, monitoring data analysis, configuration management, and network segmentation
- Elements involved with the operation of a network including patching and updating network devices and computer systems, switch configuration, and installing and configuring Wireless LANs
- Different security concepts and common threats and vulnerabilities of a network
- Network hardening, physical security, firewalls, Network Access Control models, and forensics
- How to identify network problems while troubleshooting and different network troubleshooting tools available
- How to resolve common network, WAN, and security issues and different types of fiber cabling issues
- Basic network theory, standards involved with wired and wireless networks, including the different network policies and procedures, and best safety practices, and how to structure equipment and cabling and the change management process

Course Format
CompTIA Network+ is a self-paced, online course delivered through the learning management system Skillsoft. The site to access the coursework is su.skillport.com. Login credentials will be provided to you on the cohort launch date. If you do not receive them by the launch date, please check your Spam/Junk folder of your email and/or contact your advisor or O2O program coordinator. Once you have logged into your account, you can locate the coursework by selecting "View My Learning Plan."

Coursework is delivered through videos, tutorials, and tests. No textbooks are required for the course; however, students are encouraged to utilize additional resources to assist with certification preparation. Resource Guides with lists of supplemental study materials for each certification are available at http://libguide.get-vet.syr.edu/curriculum/.

Course Completion Requirements
CompTIA Network+ coursework is due within 90 days from the assignment date. The course hours listed at the top of the syllabus reflect the time it would take to click through the slides and do not account for taking notes or the end of module tests. You must complete all eight modules listed within Topic 1. Successful completion of a module is marked after you review the lesson videos and score 80% or higher on the end of module tests.

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At the beginning of a module, you will be asked to take a pre-test. Scoring 80% or higher on the pre-test signifies competence in the information that will be covered; you will therefore be waived from completing the module. A non-credit certificate of completion will be awarded for successful completion of the coursework.

Industry Certification Requirements

In order for the program to fund your CompTIA Network+ certification exam you will need to meet the Network+ practice exam requirements. Your advisor or O2O program coordinator will provide you with access to the practice exam as well as completion instructions once you have finished the coursework.

Support

- For technical support, please contact Skillsoft Support at support.skillsoft.com
- For course content support, please utilize Skillsoft's "Ask My Mentor" tool, located in the left-hand Menu within the module course player
- For program support or questions, please contact your advisor or O2O program coordinator

Course Outline

Topic 1: Network Technology Fundamentals

1.1   Ports and Protocols and the OSI Model

1.2   Routing, Switching, & IP Addressing

1.3   Network Topologies & Technologies

1.4   Cloud Concepts, Network Services, & Cabling Solutions

1.5   Networking Devices

1.6   Network Storage, Virtualization, & WAN Technologies

1.7   Documentation and Diagrams & Business Continuity

1.8   Network Monitoring & Remote Access Methods

1.9   Policies and Best Practices

1.10 Security Devices, Wireless Security, & Access Control

1.11 Network Attacks & Device Hardening

1.12 Mitigation Techniques

1.13 Troubleshooting Methodology & Tools

1.14 Troubleshooting Connectivity & Performance Issues

1.15 Troubleshooting Common Network Service Issues