



CompTIA A+ Certification

Course Description:

This comprehensive course will build on existing user-level knowledge and experience with personal computer software and hardware to present fundamental skills and concepts that will be used on the job. In this course, you will acquire the essential skills and information you will need to install, upgrade, repair, configure, troubleshoot, optimize, and perform preventative maintenance of basic personal computer hardware and operating systems.

This course is also designed for students who are seeking the CompTIA A+ certification and who want to prepare for the CompTIA A+ Core **1 220-1001** Certification Exam and the CompTIA A+ Core **2 220-1002** Certification Exam.

Duration:

Instructor-led, group-paced, classroom-delivery learning model with structured hands on activities. In this course, you will install, configure, optimize, troubleshoot, repair, upgrade, and perform preventive maintenance on personal computers, digital devices, and operating systems. 35 hours (5 days)

Objectives:

After successfully completing this course, students will be able to:

- Install and Configure end user devices and software
- Address connectivity problems
- Perform basic Cybersecurity mitigations
- Troubleshoot common problems to diagnose and resolve issues
- Demonstrate basic knowledge of scripting, the cloud and virtualization

Prerequisites:

Students taking this course should have the following skills: end-user skills with Windows-based personal computers, including the ability to: Browse and search for information on the Internet; start up and shut down the computer; log on to a computer and computer network; run programs; move, copy, delete, and rename files in Windows Explorer. Basic knowledge of computing concepts, including: difference between hardware and software; functions of software components, such as the operating system, applications, and file systems; and the function of a computer network.



Course Outline

INSTALLING MOTHERBOARDS AND CONNECTORS

- Explain Cable types and Connectors
- Install and Configure Motherboards
- Explain Legacy Cable Types

INSTALLING SYSTEM DEVICES

- Install and Configure Power Supplies and Cooling
- Select and Install Storage Devices
- Install and Configure System Memory
- Install and Configure CPU's

TROUBLESHOOTING PC HARDWARE

- Apply Troubleshooting Methodology
- Configure BIOS/UEFI
- Troubleshoot Power and Disc Issues
- Troubleshoot System and Display Issues

COMPARING LOCAL NETWORKING HARDWARE

- Compare Network Types
- Compare Networking Hardware
- Explain Network Cable Types
- Compare Wireless Networking Types

CONFIGURING NETWORK ADDRESSING AND INTERNET CONNECTIONS

- Compare Internet Connection Types
- Use Basic TCP/IP Concepts
- Compare Protocols and Ports
- Compare Network Configuration Concepts

SUPPORTING NETWORK SERVICES

- Summarize Services Provided by Networked Hosts
- Compare Internet and Embedded Appliances
- Troubleshoot Networks

SUMMARIZING VIRTUALIZATION AND CLOUD CONCEPTS

- Summarize Client Side Virtualization
- Summarize Cloud Concepts

SUPPORTING MOBILE DEVICES

- Set Up Mobile Devices and Peripherals
- Configure Mobile Device Apps
- Install and Configure Laptop Hardware
- Troubleshoot Mobile Device Issues

SUPPORTING PRINT DEVICES

- Deploy Printer and Multifunction Devices
- Replace Print Device Consumables
- Troubleshoot Print Device Issues

CONFIGURING WINDOWS

- Configure Windows User Settings
- Configure Windows System Settings

MANAGING WINDOWS

- Use Management Consoles
- Use Performance and Troubleshooting Tools
- Use Command-line Tools

IDENTIFYING OS TYPES AND FEATURES

- Explain OS Types
- Compare Windows Editions

SUPPORTING WINDOWS

- Perform OS Installations and Upgrades
- Install and Configure Applications
- Troubleshoot Windows OS Problems

MANAGING WINDOWS NETWORKING

- Manage Windows Networking
- Troubleshoot Windows Networking
- Configure Windows Security Settings
- Manage Windows Shares

MANAGING LINUX and MacOS

- Identify Features of Linux
- Identify Features of MacOS



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CONFIGURING SOHO NETWORK SECURITY

- Explain Attacks, Threats and Vulnerabilities
- Compare Wireless Security Protocol
- Configure SISO Router Security
- Summarize Security Measures

MANAGING SECURITY SETTINGS

- Configure Workstation Security
- Configure Browser Security
- Troubleshoot Workstation Security Issues