

CompTIA A+

Length: 5 Days

Summary: In this course, you will acquire the essential skills and information you will need to install, upgrade, repair, configure, troubleshoot, optimize, and perform preventive maintenance of basic personal computer hardware and operating systems.

Who Should Attend: If you are getting ready for a career as an entry-level information technology (IT) professional or personal computer (PC) service technician, the CompTIA® A+® course is the first step in your preparation.

Upon successful completion of this course, students will be able to:

- Identify the hardware components of personal computers and mobile digital devices.
- Identify the basic components and functions of operating systems.
- Identify networking and security fundamentals.
- Identify the operational procedures that should be followed by professional PC technicians.
- Install, configure, and troubleshoot display devices.
- Install and configure peripheral components.
- Manage system components.
- Manage data storage.
- Install and configure Microsoft Windows.
- Optimize and maintain Microsoft Windows.
- Work with other operating systems.
- Identify the hardware and software requirements for client environment configurations.
- Identify network technologies.
- Install and configure networking capabilities.
- Support mobile digital devices.
- Support printers and multifunction devices.
- Identify security threats, vulnerabilities, and controls.
- Implement security controls.
- Troubleshoot system-wide issues.

COURSE CONTENT

Hardware Fundamentals

- Personal Computer Components
- Storage Devices
- Mobile Digital Devices
- Connection Interfaces

Managing System Components

- Identify Motherboard Components and Features
- Install and Configure CPUs and Cooling Systems
- Install Power Supplies
- Troubleshoot System Components

Managing Data Storage

- Identify RAM Types and Features
- Troubleshoot RAM Issues
- Install and Configure Storage Devices
- Configure the System Firmware
- Troubleshoot Hard Drives and RAID Arrays

Supporting Display Devices

- Install Display Devices
- Configure Display Devices
- Troubleshoot Video and Display Devices

Installing and Configuring Peripheral Components

- Install and Configure Input Devices
- Install and Configure Output Devices
- Install and Configure Input / Output Devices
- Install and Configure Expansion Cards

Customized Client Environments

- Types of Common Business Clients
- Custom Client Environments

Supporting Printers and Multifunction Devices

- Printer and Multifunction Technologies
- Install and Configure Printers
- Maintain Printers
- Troubleshoot Printers

Networking Technologies

- TCP/IP Properties and Characteristics
- TCP/IP
- Internet Connections
- Ports and Protocols
- Networking Tools

Installing and Configuring Networking Capabilities

- Configure Basic Windows Networking
- Configure Network Perimeters
- Using Windows Networking Features
- Install and Configure SOHO Networks

Supporting Mobile Digital Devices

- Install and Configure Exterior Laptop Components
- Install and Configure Interior Laptop Components
- Other Mobile Devices
- Mobile Device Accessories and Ports
- Mobile Device Connectivity
- Mobile Device Synchronization
- Troubleshoot Mobile Device Hardware

Operating System Fundamentals

- PC and Mobile Operating Systems
- PC Operating System Tools and Utilities

Installing and Configuring Microsoft Windows

- Implement Client-Side Virtualization
- Install Microsoft Windows
- Use Microsoft Windows
- Configure Microsoft Windows
- Upgrade Microsoft Windows

Optimizing and Maintaining Microsoft Windows

- Optimize Microsoft Windows
- Back Up and Restore System Data
- Perform Disk Maintenance
- Update Software

Working With Other Operating Systems

- The OS X Operating System
- The Linux Operating System

Networking and Security Fundamentals

- Network Types
- Network Components
- Common Network Services
- Cloud Concepts
- Security Fundamentals

Security Threats, Vulnerabilities, and Controls

- Common Security Threats and Vulnerabilities
- General Security Controls
- Mobile Security Controls
- Data Destruction and Disposal Methods

Implementing Security Controls

- Secure Operating Systems
- Secure Workstations
- Secure SOHO Networks
- Secure Mobile Devices

Troubleshooting System-Wide Issues

- Troubleshoot PC Operating Systems
- Troubleshoot Mobile Device Operating Systems and Applications
- Troubleshoot Wired and Wireless Networks
- Troubleshoot Common Security Issues

Safety and Operational Procedures

- Basic Maintenance Tools and Techniques
- Personal and Electrical Safety
- Environmental Safety and Materials Handling
- Professionalism and Communication
- Organizational Policies and Procedures
- Troubleshooting Theory