

CompTIA A+

Course Outline

1. Mobile Devices

- Install and configure laptop hardware and components.
- Compare and contrast the display components of mobile devices.
- Set up and configure accessories and ports of mobile devices.
- Configure basic mobile-device network connectivity and application support.

2. Networking

- Compare and contrast Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) ports, protocols, and their purposes.
- Compare and contrast common networking hardware.
- Compare and contrast protocols for wireless networking.
- Summarize services provided by networked hosts.
- Install and configure basic wired/wireless small office/home office (SOHO) networks.
- Compare and contrast common network configuration concepts.
- Compare and contrast Internet connection types, network types, and their features.
- Use networking tools.

3. Hardware

- Explain basic cable types and their connectors, features, and purposes.
- Install the appropriate RAM.
- Select and install storage devices.
- Install and configure motherboards and central processing units (CPUs).
- Install or replace the appropriate power supply.
- Deploy and configure multifunction devices/printers and settings.
- Install and replace printer consumables.

4. Virtualization and Cloud Computing

- Summarize cloud-computing concepts.
- Summarize aspects of client-side virtualization.

5. Hardware and Network Troubleshooting

- Apply the best practice methodology to resolve problems.
- Troubleshoot problems related to motherboards, RAM, CPU, and power.
- Troubleshoot and diagnose problems with storage drives and RAID arrays.
- Troubleshoot video, projector, and display issues.
- Troubleshoot common issues with mobile devices.
- Troubleshoot and resolve printer issues.
- Troubleshoot problems with wired and wireless networks.

6. Operating Systems

- Identify basic features of Microsoft Windows editions.
- Use the appropriate Microsoft command-line tool.

- Use features and tools of the Microsoft Windows 10 operating system (OS).
- Use the appropriate Microsoft Windows 10 Control Panel utility.
- Use the appropriate Windows settings.
- Configure Microsoft Windows networking features on a client/desktop.
- Apply application installation and configuration concepts.
- Explain common OS types and their purposes.
- Perform OS installations and upgrades in a diverse OS environment.
- Identify common features and tools of the macOS/desktop OS.
- Identify common features and tools of the Linux client/desktop OS.

7. Security

- Summarize various security measures and their purposes.
- Compare and contrast wireless security protocols and authentication methods.
- Detect, remove, and prevent malware using the appropriate tools and methods.
- Explain common social-engineering attacks, threats, and vulnerabilities.
- Manage and configure basic security settings in the Microsoft Windows OS.
- Configure a workstation to meet best practices for security.
- Explain common methods for securing mobile and embedded devices.
- Install and configure browsers and relevant security settings.

8. Software Troubleshooting

- Troubleshoot common Windows OS problems.
- Troubleshoot common personal computer (PC) security issues.
- Use best practice procedures for malware removal.
- Troubleshoot common mobile OS and application issues.
- Troubleshoot common mobile OS and application security issues.

9. Operational Procedures

- Implement best practices associated with documentation and support systems information management.
- Explain basic change-management best practices.
- Implement workstation backup and recovery methods.
- Use common safety procedures.
- Summarize environmental impacts and local environmental controls.
- Explain the importance of prohibited content/activity and privacy, licensing, and policy concepts.
- Use proper communication techniques and professionalism.
- Identify the basics of scripting.
- Given a scenario, use remote access technologies.