

CompTIA A+ Certification (220-901 & 220-902)

Course Length: 6 days (virtual)

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Overview:

IT success stories start with CompTIA A+ certification. It validates understanding of the most common hardware and software technologies in business and certifies the skills necessary to support complex IT infrastructures. CompTIA A+ is a powerful credential that helps IT professionals worldwide ignite their IT career.

CompTIA A+ 220-901

CompTIA A+ 220-901 covers PC hardware and peripherals, mobile device hardware, networking and troubleshooting hardware and network connectivity issues.

Course Outline

1.0 Hardware

- Given a scenario, configure settings and use BIOS/UEFI tools on a PC.
- Explain the importance of motherboard components, their purpose and properties.
- Compare and contrast various RAM types and their features.
- Install and configure PC expansion cards.
- Install and configure storage devices and use appropriate media.
- Install various types of CPUs and apply the appropriate cooling methods.
- Compare and contrast various PC connection interfaces, their characteristics and purpose.
- Install a power supply based on given specifications.
- Given a scenario, select the appropriate components for a custom PC configuration to meet customer specifications or needs.
- Compare and contrast types of display devices and their features.
- Identify common PC connector types and associated cables.
- Install and configure common peripheral devices.
- Install SOHO multifunction device/printers and configure appropriate settings.
- Compare and contrast differences between the various print technologies and the associated imaging process.
- Given a scenario, perform appropriate printer maintenance.

2.0 Networking

- Identify the various types of network cables and connectors.
- Compare and contrast the characteristics of connectors and cabling.
- Explain the properties and characteristics of TCP/IP.
- Explain common TCP and UDP ports, protocols and their purpose.
- Compare and contrast various WiFi networking standards and encryption types.
- Given a scenario, install and configure SOHO wireless/ wired router and apply appropriate settings.
- Compare and contrast Internet connection types, network types and their features.
- Compare and contrast network architecture devices, their functions and features.
- Given a scenario, use appropriate networking tools.

3.0 Mobile Devices

- Install and configure laptop hardware and components.
- Explain the function of components within the display of a laptop.
- Given a scenario, use appropriate laptop features.
- Explain the characteristics of various types of other mobile devices.
- Compare and contrast accessories and ports of other mobile devices.

4.0 Hardware and Network Troubleshooting

- Given a scenario, troubleshoot common problems related to motherboards, RAM, CPU and power with appropriate tools.
- Given a scenario, troubleshoot hard drives and RAID arrays with appropriate tools.
- Given a scenario, troubleshoot common video, projector and display issues.
- Given a scenario, troubleshoot wired and wireless networks with appropriate tools.
- Given a scenario, troubleshoot and repair common mobile device issues while adhering to the appropriate procedures.
- Given a scenario, troubleshoot printers with appropriate tools.

CompTIA A+ 220-902

CompTIA A+ 220-902 covers installing and configuring operating systems including Windows, iOS, Android, Apple OS X and Linux. It also addresses security, the fundamentals of cloud computing and operational procedures.

Course Outline

1.0 Windows Operating Systems

- Compare and contrast various features and requirements of Microsoft Operating Systems (Windows Vista, Windows 7, Windows 8, Windows 8.1).
- Given a scenario, install Windows PC operating systems using appropriate methods.
- Given a scenario, apply appropriate Microsoft command line tools.
- Given a scenario, use appropriate Microsoft operating system features and tools.
- Given a scenario, use Windows Control Panel utilities.
- Given a scenario, install and configure Windows networking on a client/desktop.
- Perform common preventive maintenance procedures using the appropriate Windows OS tools.

2.0 Other Operating Systems and Technologies

- Identify common features and functionality of the Mac OS and Linux operating systems.
- Given a scenario, set up and use client-side virtualization.
- Identify basic cloud concepts.
- Summarize the properties and purpose of services provided by networked hosts.
- Identify basic features of mobile operating systems.
- Install and configure basic mobile device network connectivity and email.
- Summarize methods and data related to mobile device synchronization.

3.0 Security

- Identify common security threats and vulnerabilities.
- Compare and contrast common prevention methods.

- Compare and contrast differences of basic Windows OS security settings.
- Given a scenario, deploy and enforce security best practices to secure a workstation.
- Compare and contrast various methods for securing mobile devices.
- Given a scenario, use appropriate data destruction and disposal methods.
- Given a scenario, secure SOHO wireless and wired networks.

4.0 Software Troubleshooting

- Given a scenario, troubleshoot PC operating system problems with appropriate tools.
- Given a scenario, troubleshoot common PC security issues with appropriate tools and best practices.
- Given a scenario, troubleshoot common mobile OS and application issues with appropriate tools.
- Given a scenario, troubleshoot common mobile OS and application security issues with appropriate tools.

5.0 Operational Procedures

- Given a scenario, use appropriate safety procedures.
- Given a scenario with potential environmental impacts, apply the appropriate controls.
- Summarize the process of addressing prohibited content/activity, and explain privacy, licensing and policy concepts.
- Demonstrate proper communication techniques and professionalism.
- Given a scenario, explain the troubleshooting theory.

Target Student:

If you're new to the IT industry, this will help you put your best foot forward. And if you're already an IT professional, the CompTIA A+ certification validates your skills and can boost your career.