



---

## A+ CERTIFICATION COURSE

---

This certification covers maintenance of PCs, mobile devices, laptops, operating systems and printers and it is vendor neutral, which means that will run in any computer system, such as Windows, Mac or Linux.

To obtain the A+ Certification and become a licensed A+ Technician you must pass two exams.

### COURSE OUTLINE:

#### **PC Hardware**

- Configure and apply BIOS settings
- Differences between motherboard components, their purposes, and properties
- Contrast of RAM types and features
- Install and configure expansion cards
- Install and configure storage devices and use appropriate media
- Differences among various CPU types and features and selection of the appropriate cooling method
- Contrast of various connection interfaces and their purpose
- Install an appropriate power supply
- Evaluation and selection of appropriate components for a custom configuration, meeting customer specifications or needs
- Types and features of display devices
- Identify connector types and associated cables
- Install and configure various peripheral devices

#### **Networking**

- Identify types of network cables and connectors
- Categorize characteristics of connectors and cabling
- Properties and characteristics of TCP/IP
- Common TCP and UDP ports, protocols, and their purpose
- Contrast of wireless networking standards and encryption types
- Install, configure, and deploy a SOHO wireless/wired router using appropriate settings
- Contrast of Internet connection types and features
- Identify various types of networks



- Contrast of network devices, their functions, and features
- Use of appropriate networking tools

### **Laptops**

- Install and configure laptop hardware and components
- Contrast of the components within the display of a laptop
- Contrast of laptop features

### **Printers**

- Differences between the various printer types and the associated imaging process
- Install, and configure printers
- Perform printer maintenance

### **Operational Procedures**

- Appropriate safety procedures
- Environmental impacts and the purpose of environmental controls
- Proper communication and professionalism
- Fundamentals of dealing with prohibited content/activity

### **Operating Systems**

- Contrast of the features and requirements of various Microsoft Operating Systems.
- Install, and configure the operating system using the most appropriate method.
- Appropriate command line tools.
- Appropriate operating system features and tools.
- Control Panel utilities (the items are organized by “classic view/large icons” in Windows).
- Setup and configure Windows networking on a client/desktop.
- Perform preventive maintenance procedures using appropriate tools.
- The differences among basic OS security settings.
- The basics of client-side virtualization.

### **Security**

- Common prevention methods.
- Contrast of common security threats.
- Security best practices to secure a workstation.
- Appropriate data destruction/disposal method.
- Secure a SOHO wireless network.
- Secure a SOHO wired network.



## **Mobile Devices**

- The basic features of mobile operating systems.
- Establish basic network connectivity and configure email.
- Contrast of methods for securing mobile devices.  
Contrast of hardware differences in regards to tablets and laptops.
- Execute and configure mobile device synchronization.

## **Troubleshooting**

- The troubleshooting theory.
- Troubleshoot common problems related to motherboards, RAM, CPU and power with appropriate tools.
- Troubleshoot hard drives and RAID arrays with appropriate tools.
- Troubleshoot common video and display issues.
- Troubleshoot wired and wireless networks with appropriate tools.
- Troubleshoot operating system problems with appropriate tools.
- Troubleshoot common security issues with appropriate tools and best practices.
- Troubleshoot, and repair common laptop issues while adhering to the appropriate procedures.
- Troubleshoot printers with appropriate tools