

# CompTIA A+ Certification

**Length:** 5 Days

**Overview:**

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.

**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+® Certification course is the first step in your preparation.

**Prerequisite:**

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, shut down, and log on to a computer and network; run programs; and move, copy, delete, and rename files in Windows Explorer.

Students should also have basic knowledge of computing concepts, including the difference between hardware and software; the functions of software components, such as the operating system, applications, and file systems; and the function of a computer network.

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## Course Content

### HARDWARE FUNDAMENTALS

- Computer system components
- Storage devices
- Device connections and interfaces

### OPERATING SYSTEM FUNDAMENTALS

- Personal computer operating systems
- Windows control panel utilities
- Command line tools
- Windows security settings
- Windows operating system tools

### OPERATIONAL PROCEDURES

- Basic maintenance tools and techniques
- Electrical safety
- Environmental safety and materials handling
- Professionalism and communication

### PERIPHERAL COMPONENTS

- Install and configure display devices
- Install and configure input devices

- Install and configure expansion cards
- Install and configure multimedia devices

### MANAGING SYSTEM COMPONENTS

- Motherboards
- CPUs and cooling systems
- Select and install power supplies
- Ram types and features
- Install and configure storage devices
- Configure the system bios

### INSTALLING AND CONFIGURING OPERATING SYSTEMS

- Implement virtualization
- Install Microsoft windows
- Windows upgrades
- Windows preventive maintenance

### CUSTOMIZED CLIENT ENVIRONMENTS

- Standard clients
- Custom client environments

### NETWORKING TECHNOLOGIES

- Physical network connections
  - TCP/IP
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- Network connectivity
- Ports and protocols
- Set up and configure windows networking
- Networking tools

#### **INSTALLING, CONFIGURING, AND MAINTAINING SOHO NETWORKS**

- Install and configure SOHO networks
- Network security

#### **SUPPORTING LAPTOPS**

- Laptop hardware and components
- Install and configure laptop hardware components

#### **MOBILE COMPUTING**

- Mobile device technologies
- Configure mobile devices

#### **SUPPORTING PRINTERS PRINTER TECHNOLOGIES**

- Install, configure, and maintain printers

#### **SECURITY**

- Security fundamentals
- Security threats and vulnerabilities
- Security protection measures
- Workstation security

#### **TROUBLESHOOTING HARDWARE COMPONENTS**

- Troubleshooting theory
- Troubleshoot video and display devices
- Troubleshoot hard drives and raid arrays
- Troubleshoot system components
- Troubleshoot laptops
- Troubleshoot printers

#### **TROUBLESHOOTING SYSTEM-WIDE ISSUES**

- Troubleshoot operating systems
  - Troubleshoot wired and wireless networks
  - Troubleshoot common security issues
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