

CompTIA A+

Training &

Certification

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CompTIA A+ Certification – Objectives

CompTIA A+



CompTIA A+ certification validates foundation-level knowledge and skills necessary for a career in PC support. It is the starting point for a career. The international, vendor-neutral certification proves competence in areas such as installation, preventative maintenance, networking, security and troubleshooting.

CompTIA A+ certified technicians also have excellent customer service and communication skills to work with clients.

Two exams are necessary to be certified: CompTIA A+ Essentials, exam code 220-701; and CompTIA A+ Practical Application, exam code 220-702.

CompTIA A+ Essentials measures the necessary competencies of an entry-level IT professional with a recommended 500 hours of hands-on experience in the lab or field. It tests for technical understanding of computer technology, networking and security, as well as the communication skills and professionalism now required of all entry-level IT professionals.

CompTIA A+ Practical Application is an extension of the knowledge and skills identified in CompTIA A+ Essentials, with more of a "hands-on" orientation focused on scenarios in which troubleshooting and tools must be applied to resolve problems.

Candidate job roles include *enterprise technician, field service technician, PC or support technician and IT administrator*. CompTIA A+ is part of the certification track for corporations such as Microsoft, HP and Cisco. Other technology companies, including Dell, Intel, Lenovo and Ricoh, have made CompTIA A+ certification mandatory for their service technicians. The U.S. Department of Defense recognizes CompTIA A+ and the Department of Homeland Security requires it as part of their computer forensics program.

The CompTIA A+ certification is accredited by the [International Organization for Standardization \(ISO\)](#) and the [American National Standards Institute \(ANSI\)](#). The CompTIA A+ certification may be kept current through the CompTIA Continuing Education program. The CompTIA A+ certification may be kept current through the [CompTIA Continuing Education program](#).

CompTIA A+ Certification - Class Outline

Duration:

Traditional Instructor Led Learning - 5.00 Day(s)

Online Anytime - Self Paced

Online Live - 5.00 Sessions

Mentored Learning - Flexible

Overview:

In this course, students will install, upgrade, repair, configure, optimize, troubleshoot, and perform preventative maintenance on basic personal computer hardware and operating systems. Windows 7 topics have been included in exam and course.

Who Should Attend:

The target student is anyone with basic computer user skills who is interested in obtaining a job as an IT professional or PC technician. In addition, this course will help prepare students to achieve a CompTIA A+ Certification.

At Course Completion:

Upon successful completion of this course, students will be able to: - identify the components of standard desktop personal computers. - identify fundamental components and functions of personal computer operating systems. - identify best practices followed by professional personal computer technicians. - install and configure computer components. - install and configure system components. - maintain and troubleshoot peripheral components. - troubleshoot system components. - install and configure operating systems. - maintain and troubleshoot installations of Microsoft Windows. - identify network technologies. - install and manage network connections. - support laptops and portable computing devices. - support printers. - identify personal computer security concepts. - support personal computer security.

Prerequisite Comments:

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.

CompTIA A+ Certification – Course Outline

Outline:

Lesson 1: Personal Computer Components

- Personal Computer Components
- System Unit Components
- Storage Devices
- Personal Computer Connection Methods

Lesson 2: Operating System Fundamentals

- Personal Computer Operating Systems
- Windows User Interface Components
- Windows File System Management
- Windows System Management Tools

Lesson 3: PC Technician Professional Best Practices

- Tools of the Trade
- Electrical Safety
- Environmental Safety and Materials Handling
- Perform Preventative Maintenance
- Diagnostics and Troubleshooting
- Professionalism and Communication

Lesson 4: Installing and Configuring Peripheral Components

- Install and Configure Display Devices
- Install and Configure Input Devices
- Install and Configure Adapter Cards
- Install and Configure Multimedia Devices

Lesson 5: Installing and Configuring System Components

- Install and Configure Storage Devices
- Select and Install Power Supplies
- Select and Install Memory
- Select, Install, and Configure CPUs and Cooling System Units
- Install and Configure System Boards

Lesson 6: Maintaining and Troubleshooting Peripheral Components

- Troubleshoot Display Devices
- Maintain and Troubleshoot Input Devices
- Troubleshoot Adapter Cards
- Troubleshoot Multimedia Devices

Lesson 7: Troubleshooting System Components

- Troubleshoot Storage Devices
- Troubleshoot Power Supplies

Troubleshoot Memory
Troubleshoot CPUs and Cooling Systems
Troubleshoot System Boards

Lesson 8: Installing and Configuring Operating Systems

Install Microsoft Windows
Upgrade Windows
Add Devices to Windows
Optimize Windows

Lesson 9: Maintaining and Troubleshooting Microsoft Windows

Operating System Utilities
Back Up Microsoft Windows
Troubleshoot Microsoft Windows
Recover Microsoft Windows

Lesson 10: Network Technologies

Network Concepts
Network Communications
Network Connectivity
Internet Technologies

Lesson 11: Installing and Managing Network Connections

Create Network Connections
Install and Configure Web Browsers
Maintain and Troubleshoot Network Connections

Lesson 12: Supporting Laptops and Portable Computing Devices

Laptop and Portable Computing Device Components
Install and Configure Laptops and Portable Computing Devices
Maintain and Troubleshoot Laptops and Portable Computing Devices

Lesson 13: Supporting Printers

Printer Technologies
Printer Components
Printer Processes
Install and Configure Printers
Maintain and Troubleshoot Printers

Lesson 14: Personal Computer Security Concepts

Security Fundamentals
Security Protection Measures
Data and Physical Security
Wireless Security
Social Engineering

Lesson 15: Supporting Personal Computer Security

Install and Configure Security Measures
Maintain and Troubleshoot Security Measures

CompTIA A+ Certification – Exam Outline

Required exams	CompTIA A+ Essentials CompTIA A+ Practical Application
Number of questions	100 for each exam
Length of test	90 minutes each
Passing score	675 for CompTIA A+ Essentials 700 for CompTIA A+ Practical Application (on a scale of 100-900)
Languages	English, Spanish, German, Turkish, Japanese, Traditional Chinese (Taiwan), Simplified Chinese, Portuguese, Korean, Arabic
Exam codes	220-701 or JK0-701 for CompTIA A+ Essentials 220-702 or JK0-702 for CompTIA A+ Practical Application