

CompTIA® A+® Certification: 2009 Exam Objectives (Windows 7)

Course length: 5 days

Course Description

Course Objective: You will install, upgrade, repair, configure, optimize, troubleshoot, and perform preventative maintenance on basic personal computer hardware and operating systems.

Target Student: 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.

Prerequisites: 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.

An introductory course in a Windows operating system, or equivalent skills and knowledge, is required. Students can take any one of the following courses: Introduction to Personal Computers: Using Windows XP or Introduction to Personal Computers: Using Windows 7.

The following courses are additionally recommended: Windows XP: Introduction or Microsoft® Windows 7: Level 1.

Course Objectives

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.



Course Content

Lesson 1: Personal Computer Components

- Topic 1A: Personal Computer Components
- Topic 1B: System Unit Components
- Topic 1C: Storage Devices
- Topic 1D: Personal Computer Connection Methods

Lesson 2: Operating System Fundamentals

- Topic 2A: Personal Computer Operating Systems
- Topic 2B: Windows User Interface Components
- Topic 2C: Windows File System Management
- Topic 2D: Windows System Management Tools

Lesson 3: PC Technician Professional Best Practices

- Topic 3A: Tools of the Trade
- Topic 3B: Electrical Safety
- Topic 3C: Environmental Safety and Materials Handling
- Topic 3D: Perform Preventative Maintenance
- Topic 3E: Diagnostics and Troubleshooting
- Topic 3F: Professionalism and Communication

Lesson 4: Installing and Configuring Peripheral Components

- Topic 4A: Install and Configure Display Devices
- Topic 4B: Install and Configure Input Devices
- Topic 4C: Install and Configure Adapter Cards
- Topic 4D: Install and Configure Multimedia Devices

Lesson 5: Installing and Configuring System Components

- Topic 5A: Install and Configure Storage Devices
- Topic 5B: Select and Install Power Supplies
- Topic 5C: Select and Install Memory
- Topic 5D: Select, Install, and Configure CPUs and Cooling System Units
- Topic 5E: Install and Configure System Boards

Lesson 6: Maintaining and Troubleshooting Peripheral Components

- Topic 6A: Troubleshoot Display Devices
- Topic 6B: Maintain and Troubleshoot Input Devices
- Topic 6C: Troubleshoot Adapter Cards
- Topic 6D: Troubleshoot Multimedia Devices

Lesson 7: Troubleshooting System Components

- Topic 7A: Troubleshoot Storage Devices
- Topic 7B: Troubleshoot Power Supplies
- Topic 7C: Troubleshoot Memory
- Topic 7D: Troubleshoot CPUs and Cooling Systems
- Topic 7E: Troubleshoot System Boards

Lesson 8: Installing and Configuring Operating Systems

- Topic 8A: Install Microsoft Windows
- Topic 8B: Upgrade Windows
- Topic 8C: Add Devices to Windows
- Topic 8D: Optimize Windows



Lesson 9: Maintaining and Troubleshooting Microsoft Windows

Topic 9A: Operating System Utilities
Topic 9B: Back Up Microsoft Windows
Topic 9C: Troubleshoot Microsoft Windows
Topic 9D: Recover Microsoft Windows

Lesson 10: Network Technologies

Topic 10A: Network Concepts
Topic 10B: Network Communications
Topic 10C: Network Connectivity
Topic 10D: Internet Technologies

Lesson 11: Installing and Managing Network Connections

Topic 11A: Create Network Connections
Topic 11B: Install and Configure Web Browsers
Topic 11C: Maintain and Troubleshoot Network Connections

Lesson 12: Supporting Laptops and Portable Computing Devices

Topic 12A: Laptop and Portable Computing Device Components
Topic 12B: Install and Configure Laptops and Portable Computing Devices
Topic 12C: Maintain and Troubleshoot Laptops and Portable Computing Devices

Lesson 13: Supporting Printers

Topic 13A: Printer Technologies
Topic 13B: Printer Components
Topic 13C: Printer Processes
Topic 13D: Install and Configure Printers
Topic 13E: Maintain and Troubleshoot Printers

Lesson 14: Personal Computer Security Concepts

Topic 14A: Security Fundamentals
Topic 14B: Security Protection Measures
Topic 14C: Data and Physical Security
Topic 14D: Wireless Security
Topic 14E: Social Engineering

Lesson 15: Supporting Personal Computer Security

Topic 15A: Install and Configure Security Measures
Topic 15B: Maintain and Troubleshoot Security Measures
Appendix A: Mapping Course Content to the CompTIA A+ Essentials (2009 Edition) 220-701 Exam Objectives
Appendix B: Mapping Course Content to the CompTIA A+ Practical Application (2009 Edition) 220-702 Exam Objectives
Appendix C: CompTIA A+ Acronyms
Appendix D: A Brief History of Personal Computers

