



CompTIA A+ Certification: A Comprehensive Approach for All 2009 Exam Objectives

Course Specifications

Course length: 5 days, 8:30 am – 4:30 pm with an hour break for lunch

Standard rate: \$2200/student, call (406) 256-5700 for group discounts and Entré Partner pricing

Course Description

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 Element K courses: Introduction to Personal Computers: Using Windows XP or Introduction to Personal Computers: Using Windows Vista™.

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 220-701 Exam Objectives

Appendix B: Mapping Course Content to the CompTIA A+ Practical Application 220-702 Exam Objectives

Appendix C: CompTIA A+ Acronyms

Appendix D: A Brief History of Personal Computers