



CompTIA® A+® Certification: Essentials (2009 Objectives) COMP-120

Course Description:

This CompTIA® A+® Certification: Essentials (2009 Objectives) course is designed to allow students to acquire the essential skills and information needed to install, upgrade, repair, configure, troubleshoot, optimize, and perform preventative maintenance of basic personal computer hardware and operating systems.

Course Objectives:

Upon completion of the CompTIA® A+® Certification: Essentials (2009 Objectives) 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
- Identify technical characteristics of system components
- Maintain and troubleshoot peripheral components
- Identify troubleshooting techniques for system components
- Install and configure operating systems
- Maintain and troubleshoot installations of Microsoft Windows
- Identify network technologies
- Support laptops and portable computing devices
- Support printers
- Identify personal computer security concepts

Prerequisites:

- 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

- 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.

Audience:

- 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

Course Duration:

4 Days

Course Topics:

I. Personal Computer Components

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

II. Operating System Fundamentals

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

III. 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

IV. Installing and Configuring Peripheral Components

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

V. Examining System Components

- Storage Devices and Backup Media
- Power Supplies
- Memory
- CPUs and Cooling System Units
- System Boards

VI. Maintaining and Troubleshooting Peripheral Components

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

VII. System Component Troubleshooting Techniques

- Adapter Card Troubleshooting
- Storage Device Troubleshooting
- Power Supply Troubleshooting
- Memory Troubleshooting
- CPU and Cooling System Troubleshooting
- System Board Troubleshooting

VIII. Installing and Configuring Operating Systems

- Install Microsoft Windows
- Upgrade Windows
- Add Devices to Windows
- Optimize Windows

IX. Maintain and Troubleshoot Input Devices

- Troubleshoot Multimedia Devices

X. System Component Troubleshooting Techniques

- Adapter Card Troubleshooting

- Storage Device Troubleshooting
- Power Supply Troubleshooting
- Memory Troubleshooting
- CPU and Cooling System Troubleshooting
- System Board Troubleshooting

XI. Installing and Configuring Operating Systems

- Install Microsoft Windows
- Upgrade Windows
- Add Devices to Windows
- Optimize Windows

XII. Maintaining and Troubleshooting Microsoft Windows

- Operating System Utilities
- Back up Microsoft Windows
- Troubleshoot Microsoft Windows
- Microsoft Windows System Recovery Methods

XIII. Network Technologies

- Network Concepts
- Network Communications
- Network Connectivity
- Internet Technologies
- Create Network Connections

XIV. Supporting Laptops and Portable Computing Devices

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

XV. Supporting Printers

- Printer Technologies
- Printer Components
- Printer Processes
- Install and Configure Printers

- Maintain and Troubleshoot Printers

XVI. Personal Computer Security Concepts

- Security Fundamentals
 - Security Protection Measures
 - Wireless Security
 - Social Engineering
 - Maintain and Troubleshoot Security Measures
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- Appendix A: Mapping Course Content to the CompTIA® A+® Essentials 220-701 Exam Objectives
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- Appendix B: CompTIA A+ Acronyms
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- Appendix C: A Brief History of Personal Computers