



LPS Integration

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Technical Training

Duration: 5 days

Pre-requisites

- Familiarity with PC's, Windows and browsing the internet.
- Basic computer skills like using a mouse, cutting and pasting and renaming files.

Additional course recommendations :

- A+ 2009 Practical Application
- Network +
- Security +

Location:

All classes taught at our Metro Center facility in Nashville .

Hours:

Class hours: 9:00-5:00 unless otherwise noted

A+ 2009 Essentials

About this Course

CompTIA A+ Certification validates the latest skills needed by today's computer support professionals. It is an international, vendor-neutral certification recognized by major hardware and software vendors. CompTIA A+ confirms a technician's ability to perform tasks such as installation, configuration, diagnosing, preventive maintenance and basic networking. The exams also cover domains such as security, safety and environmental issues and communication and professionalism.

CompTIA A+ ensures students have the proper skills. While many of the essential skills are universal, there are additional skills required to support the needs of businesses. By offering certification options for specific job scenarios, CompTIA A+ gives individuals the ability to grow their careers in a certain area, and employers the flexibility to choose the exam combination that best fits their needs.

Audience Profile

This course is intended for students wishing to qualify with CompTIA A+ Certification for PC Support professionals. This course will particularly benefit students pursuing a career in supporting desktop personal computer users, in job roles such as Support Engineer, Maintenance Engineer, Desktop Engineer, Computer Administrator, or PC Support Analyst. Study of the course can also act as groundwork for more advanced training, including CompTIA Network+ or CompTIA Server+, CCNA, and MCTS.

Course prerequisites

Students should have experience of using a PC, Windows and browsing the Web. The following key skills are recommended:

- Use a keyboard and mouse.
- Recognize the main components of a PC (such as case, monitor, mouse, and keyboard) and different data media such as floppy disks or CD-ROMs.
- Start the computer and navigate the Desktop.
- Use Windows Explorer to create directories and subdirectories; and move, copy, or rename files and directories.

LPS Integration

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Metro Center

Course Outline

About this Course:

This 5-day course provides students with the necessary training to ensure proficiency in PC installation and troubleshooting skills. This is a hands-on course and is an essential foundation for newcomers to PC support. The course has been developed to produce competent PC support engineers who are capable of taking and passing CompTIA's A+ Certification exam, 220-701, or other similar qualifications.

Students will learn the fundamental principles of supporting desktop and portable computers and operating systems plus network and print devices and applications.

Course Objectives:

- Identify types and characteristics of PC components, including motherboard, CPU, memory, and storage, input, and output devices.
- Install and configure peripheral devices.
- Identify types and characteristics of portable computers.
- Install and configure Microsoft Windows 2000, Microsoft Windows XP, and Microsoft Windows Vista.
- Perform basic PC maintenance and troubleshooting.
- Understand fundamental principles of securing IT systems and working safely.
- Communicate effectively with customers.
- Understand fundamental principles of implementing LANs and internet access.

A+ Essentials

Module 1: PC and Notebook Hardware

Types of Computers

- Personal Computers
- Desktop Computers
- Portable Computers
- Units, Signaling, and Circuits

Motherboards

- Motherboard Layout
- Bus Architecture
- Motherboard Components
- Expansion Bus and Adapter Cards
- Motherboard Form Factors
- Power Supply Unit (PSU)
- Cooling

Processors

- Central Processing Unit (CPU)
- Features of CPUs • Intel Processors
- AMD Processors
- CPU Packaging
- Notebook Processors

Memory

- Memory Types
- Memory Characteristics

Storage Devices

- Storage Devices
- Hard Drives
- Drive Controllers
- Floppy Drives
- Optical Disk Storage
- Flash Memory
- Tape Drives

Input and Peripheral Devices

- I/O Ports and Cables
- Input Devices
- I/O Devices
- Communications Devices
- Installing and Configuring Peripherals

Video and Sound Devices

- Display Devices
- Video Adapters
- Audio Devices
- Multimedia Input Devices

Module 2: Operating Systems

Windows Operating System

- What is an Operating System?
- Windows Architecture
- Early Versions of Windows
- Windows 2000
- Windows XP
- Windows Vista
- Other Operating Systems

Managing Windows

- Windows Administrative Tools
- Configuring Hardware
- Screen Savers and Power Management
- Managing Software
- Managing Services
- Windows Registry

Windows Storage Management

- Preparing a Hard Disk
- Navigating Windows
- Working with Folders
- Working with Files
- Searching For Files
- The Recycle Bin
- File and Folder Management in Vista
- My Network Places

Installing and Upgrading Windows

- Overview of OS Installations
- Installing Windows from CD / DVD
- Upgrading the OS
- Options for Deploying Windows

Windows Boot Process

- Windows Boot Process
- The BOOT.INI File
- Windows Vista Boot Process
- Configuring Boot Devices
- Advanced Startup Options

Module 3: Networking and Printing

Network Concepts

- What is a Network?
- The OSI Model
- Network Devices
- Network Transport Protocols
- The Internet

Local, Wireless, and Remote Networks

- Network Cabling
- Wireless Networks
- Accessing the Internet

Printers

- The Print Process
- Printer Types
- Installing and Configuring a Printer
- Maintaining Printers

Module 4: PC Support**Troubleshooting Techniques**

- Troubleshooting Models and Processes
- Approaching Troubleshooting
- Troubleshooting Resources

Basic Troubleshooting Scenarios

- Common Hardware Symptoms
- Windows Errors
- Troubleshooting Applications
- Troubleshooting Printers
- Network Troubleshooting Basics

Preventive Maintenance

- Health and Safety
- Static Electricity and ESD
- Materials Handling
- Disposal of Consumables and Computer Equipment
- Physical Inspections
- Patch Management
- Data Backup

Security

- Security Fundamentals
- Access Control
- Authentication
- Accounting
- Social Engineering
- Malware
- Data Security

Professionalism and Communication

- Customer Service Skills
- Communication Skills
- Professionalism
- Handling Customer Complaints