

A+ Certification Core Hardware (2003 Objectives)

Days of Training: 5

Overview

In this course, you'll build on your end-user background knowledge as you acquire the specific skills required to install, configure, upgrade, troubleshoot, and repair PC hardware components and systems.

Prerequisites

Computers Made Easy

Lesson 1: Introduction to Computers

- A Brief History of Computers
- Desktop Computer System
- Components and Their Functions
- Software
- Numbering Systems

Lesson 2: Tools of the Trade

- Hardware Tools
- Software Tools
- Troubleshooting Methodologies

Lesson 3: Safety

- Basics of Electricity and Electronics
- Establish an ESD-free Work Area
- Observe General Safety Precautions
- Potential Hazards of Using PCs
- Fire Safety

Lesson 4: System Components

- Power Supplies
- ROM BIOS
- Central Processing Units
- System Boards
- Memory

Lesson 5: Bus Architectures

- What is a Bus?
- The 8-bit Bus
- The ISA Bus
- The EISA Bus
- The Micro Channel Architecture Bus
- The PCI Bus
- Video Circuitry Buses
- Troubleshooting Adapter Card Problems

Lesson 6: Ports, Connectors, and

Cables

- Serial Ports
- Parallel Ports
- PS/2 Ports
- USB Ports
- FireWire Ports
- Wireless Ports

Lesson 7: Expansion Boards

- Drive Controllers
- Video Adapters
- Sound and Game Adapters
- Modem Adapters

Lesson 8: Fixed Disk Storage

Systems

- Fixed Disk Drives
- Installing IDE Drives
- Install or Remove Internal SCSI Drives
- Correct Hard Drive Problems
- RAID

Lesson 9: Removable Storage

Systems

- Floppy Disk Drives
- Optical Disc Drives
- Cartridge Disk Drives
- Backup Systems

Lesson 10: Peripheral Devices

- Primary Input Devices
- Video Output Devices
- Printers
- Other Input/Output Devices

Lesson 11: Portable Computing

- Portable Computing Devices
- Docking Solutions
- Portable Computing Device Drives
- PC Cards
- Mini-PCI Cards
- Portable Computing Device Memory
- Replace Internal Components
- Personal Digital Assistants

Lesson 12: Networking

- Network Concepts
- Network Communications
- Network Architecture
- Internet Connections
- Networking Devices
- Troubleshoot Networks

Lesson 13: Performing Preventative Maintenance

- Maintain the Hard Disk
- Perform Printer Maintenance
- Use a UPS
- Clean Peripheral Components
- Clean Internal System Components
- Decide When to Upgrade
- Dispose of Computer Equipment

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