CompTIA A+ (Exams 220-1001 & 220-1002)

Course Overview

A+ Certification is the computer industry recognized credential that certifies the competency of PC Service Specialists. It is sponsored by CompTIA - the Computing Technology Industry Association, and tests are administered by Pearson VUE. This certification program is backed by over 50 Major computer hardware and software manufacturers, vendors, distributors, resellers, and publications. Certification provides a wealth of benefits to any person seeking a job in the computer industry! Your successful computer career can start with this one course, or it can serve as proof of your computer hardware and operating system knowledge as a professional already in your field.

Course Introduction
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Chapter 01 - IT Professional Soft Skills
IT Professional Soft Skills
Troubleshooting and Problem Identification
Troubleshooting Steps
Problem Analysis and Potential Causes
Documentation Resources
Communication and Professionalism
Demo - IT Professional Soft Skills
Chapter 01 Review

Chapter 02 - Safety for You and Computer Components
Safety for You and Computer Components
Common IT Tools
Electrostatic Discharge
Handling Components
Personal Safety
High Voltage
Ergonomics
Environmental Waste
Demo - Safety for You and Computer Components
Chapter 02 Review

Chapter 03 - System Component Overview
System Component Overview
Processors and CPUs
Power Supplies
Storage Devices
Adapter Cards
Chapter 04 - Understanding Motherboards
Understanding Motherboards
Motherboard Chipsets
Front and Side Panels
Cache Memory
RAM Slots
BIOS Chip
Expansion Slots
Connectors and Ports
Demo - Understanding Motherboards
Chapter 04 Review

Chapter 05 - Understanding Processors
Understanding Processors
Data Bus
Architecture
Chip Packaging
Processor Sockets
Intel and Non-Intel Chips
Additional Core Processors
Installing a Processor
Demo - Performing Installation of a Processor
Chapter 05 Review

Chapter 06 - Understanding Types of Memory
Understanding Types of Memory
Understanding Types of Memory - RAM
Understanding Types of Memory - ROM
Error Checking Memory
Single- and Double-sided Memory
Installing and Upgrading Memory
Demo - Understanding Types of Memory
Chapter 06 Review

Chapter 07 - Understanding BIOS and CMOS
Understanding BIOS and CMOS
BIOS and Upgrades
Understanding (CMOS)
Hard Drives
Optical Drives
RAM Memory
Speeds and Ports
Chapter 08 - Hard Drives and Storage Devices  
Hard Drives and Storage Devices
Hard Disks
IDE Devices
Demo - Installing IDE Devices
Small Computer System Interface
Removable Storage
Demo - Hard Drives and Storage Devices
Chapter 08 Review

Chapter 09 - Power Supplies and Voltage  
Power Supplies and Voltage
Power Supplies
Power Supply Uses
Power Consumption
Power Connections
Demo - Power Supplies and Voltage
Chapter 09 Review

Chapter 10 - Ports, Cables, and Connectors  
Ports, Cables, and Connectors
Cables
Ribbon Cables
Coaxial Cables
Twisted Pair
Fiber
Cable Orientation and Cable Types
Male and Female Connections
DB-15
RJ-11
RJ-45
Universal Serial Bus (USB) Connections
Type-A
Type-B
Mini-B
External Cables
Types of Adapters and Converters
VGA
DVI Cables
HDMI Cables
Audio Cables
USB Cables and Thunderbolt USB
Computer Power Cords
Demo - Ports, Cables, and Connectors Hardware
Chapter 10 Review
Chapter 11 - Input and Output Devices
Input and Output Devices
Video Adapters
Video Standards
Video Card Features
Video Connectors
Installing Video Cards
Types of Displays
Display Features
Multiple Displays
Troubleshooting Displays
Soundcards
Demo - Input and Output Devices
Chapter 11 Review

Chapter 12 - Managing Printers
Managing Printers
Types of Printers
Laser Printers
Inkjet Printers
Dot Matrix Printers
Multifunction Printers
Cloud-based Printers
Thermal Printers
Printer Parts
Printer Connections
Installing Printers
Printer Troubleshooting
Demo - Printer Install
Demo - Managing Printers
Chapter 12 Review

Chapter 13 - Mobile Devices, Multimedia, and Laptop Computers
Mobile Devices, Multimedia, and Laptop Computers
Laptop Components
Demo - Five Laptops
Laptop Operations
Battery Types
Battery Handling
Improving Battery Performance
Standby and Sleep Modes
AC Adapters
LCD Panel Displays
Keyboards and Keys
Troubleshooting Laptops
Demo - Mobile Devices, Multimedia, and Laptop Computers
Demo - Mobile Device Maintenance
Chapter 13 Review
Demo - Operating Systems Administrative Tools
Demo - Operating Systems Migration
Demo - Operating Systems Configurations
Chapter 16 Review

**Chapter 17 - Managing Files**
Managing Files
Common Executable File Extensions
Common Application File Extensions
Common Compression File Extensions
Common System File Extensions
Graphic File Extensions
Miscellaneous Files
Questions
File Attributes
Encryption
Setting Attributes
Command Prompts
Demo - Managing Files
Chapter 17 Review

**Chapter 18 - Applications Utility, Troubleshooting, and Optimization**
Applications Utility, Troubleshooting, and Optimization
Installing, Removing, and Repairing Applications
Windows Compatibility Modes
Optimizing the Windows Environment
Performance Monitors
Virtual Memory
Troubleshooting Utilities
System Configuration Utility
Computer Management
Error Codes
Demo - Applications Utility
Demo - Troubleshooting Utility
Demo - Optimization
Chapter 18 Review

**Chapter 19 - Configuring Device Drivers**
Configuring Device Drivers
Changing Device Settings
Updating Drivers
Removing Device Drivers
Plug-and-Play Devices
Device Failure
Demo - Configuring Drivers
Chapter 19 Review
Chapter 20 - Networking and Wireless Connections
Networking and Wireless Connections
Peer-to-Peer
Server Networks
Topology
Bus
Star
Ring
Network Protocols
Networking Devices
Ways to Network a Computer
Wireless Communications
Securing Routers
Installing a Network Adapter
Troubleshooting Networks
Demo - Networking and Wireless Connections
Chapter 20 Review

Chapter 21 - Recovering Systems and Disaster Recovery
Recovering Systems and Disaster Recovery
Disaster Recovery
Booting into Safe Mode
Emergency Repair
Backup and Restore
Recovery Methods
Preventive Maintenance
Demo - Recovering Systems
Chapter 21 Review

Chapter 22 - Cloud Computing
Cloud Computing
Overview
Benefits and Risks
Deployment Models
Cloud Characteristics
Planning
Cloud Computing Technologies
Architecture
Infrastructure
Cloud Models
Virtualization
Security
Demo - Cloud Storage
Chapter 22 Review
Chapter 23 - Security Fundamentals

Security Fundamentals
Types of Attackers
Types of Attacks
Malware
Physical Security
Authentication
Multifactor Authentication
Data Protection
Data Backups
Prevention Methods
Security Controls
System Hardening
Demo - Security Fundamentals
Chapter 23 Review

Total Duration: 15h 30m