

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.

<u>Course Introduction</u>	3m
Course Introduction	
<u>Chapter 01 - IT Professional Soft Skills</u>	35m
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	
<u>Chapter 02 - Safety for You and Computer Components</u>	39m
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	
<u>Chapter 03 - System Component Overview</u>	23m
System Component Overview	
Processors and CPUs	
Power Supplies	
Storage Devices	
Adapter Cards	

BIOS/CMOS
Chips
Input and Output Devices
Ports
Demo - System Component
Chapter 03 Review

Chapter 04 - Understanding Motherboards

30m

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

34m

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

26m

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

26m

Understanding BIOS and CMOS
BIOS and Upgrades
Understanding (CMOS)
Hard Drives
Optical Drives
RAM Memory
Speeds and Ports

Advanced Settings
Demo - BIOS and CMOS
Chapter 07 Review

Chapter 08 - Hard Drives and Storage Devices

40m

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

30m

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

33m

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

46m

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

44m

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

43m

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

Chapter 14 - Preventive Maintenance

29m

Preventive Maintenance
Preventive Tasks
Preventive Maintenance Tools - Outside
Preventive Maintenance Tools - Inside
Common Issues
Demo - Preventive Maintenance Hardware
Chapter 14 Review

Chapter 15 - Troubleshooting Procedures

1h 7m

Troubleshooting Procedures
Common Screws
Software Tools
Troubleshooting
What to Look for
Audible Codes
Visible Codes
What to Look for - Drives and Processors
What to Look for - External Parts
Demo - Troubleshooting Procedures
Chapter 15 Review

Chapter 16 - Operating Systems

1h 39m

Operating Systems
Big 3 - Windows, Linux, and Mac
Applications
Windows Versions
Windows 10 Overview
Demo - Windows 10
Linux
Mac
Operating System Versions
Paging Memory
Choosing a Filesystem
The Registry
Tools and Configuration Utilities
Demo - Control Panel
Security and Maintenance
Windows Security
System
Power Options
Storage Spaces
Computer Drives
Configuration
Remote Assistance
Demo - Remote Assistance
Files
Installation and Upgrades for Windows
Installation
Demo - Operating Systems Command Prompt

Demo - Operating Systems Administrative Tools
Demo - Operating Systems Migration
Demo - Operating Systems Configurations
Chapter 16 Review

Chapter 17 - Managing Files

23m

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

1h 4m

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

17m

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

59m

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

25m

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

46m

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

50m

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