1001-02: CompTIA A+ Certification, Part 3 of 13: PC Components

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Prerequisites: This course assumes the user has little to experience with computer hardware or software.

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Course description: In this course for the CompTIA A+ 1001-1002 exam, we will take a look at installing and configuring display devices, as well as how to select a display. Then we will take a look at Standard Device types, along with many different types of devices. Next we will take a look at the different types of expansion cards, and how they are to be configured. Next in this course, we take a look at the different sizes and form factors of motherboards, the expansion slots, RAM slots and the power connections on motherboards. Next we will take a look at the different CPU Sockets, Cache, Operational Characteristics, Selection Factors, Cooling System Types, and Cooling System Selection Factors. We will then take a look at the different Power Supply Specifications, the Power Supply Connections, Power Supply Safety Recommendations, and Selecting the Right Power Supply. Next up we will take a look at the different RAM Modules, RAM Configurations, Types of RAM, Memory Standard Specifications, ECC, Parity, and RAM Characteristics. Then we will take a look at the Capacity of various mediums, RAID Configurations, Internal Storage Device Considerations, and External Storage Device Considerations. Then to close out the course we will look at BIOS Components, Firmware Upgrades, BIOS Configuration Options, BIOS Diagnostics, and BIOS Monitoring Capabilities.

Course outline:

Install & Config Display Device
- Introduction
- Peripheral Components
- Display Device Types
- Settings and Features
- Device Drivers
- Display Device Selection Tips
- Display Device Installation
- Summary

Input Device Types
- Introduction
- Standard Input Device Types
- Biometric Input Device Types
- Specialized Input Device Types
- KVM Switches
- Input Device Selection Tips
- Installation Considerations
- Demo: Input Devices
- Summary

Install & Configure Cards
- Introduction
- Expansion Card Types
- Card Selection Tips
- Card Installation Config
- Expansion Card Configuration
- Demo: Expansion Cards
- Summary

Install & Config Multimedia
- Introduction
- Multimedia Devices
- Common Multimedia Devices
- Multimedia Device Selection
- Multimedia Device Installation
- Multimedia Device Config
- Summary

Motherboards
- Introduction
- Managing System Components
- Motherboard Sizes/Form Factors
- Expansion Slots
- RAM Slots
- Integrated I/O Port Types
- Chipsets
- CMOS Battery
- Jumpers and DIP Switches
- Front Panel Connectors
- Fan Connectors
- Bus Speeds
- Motherboard Power Connectors
- Motherboard Selection Tips
- Motherboard Installation
- Demo: Motherboard
- Summary

CPU & Cooling Systems
- Introduction
- CPU Sockets
- Intel CPU Socket Types
- AMD CPU Socket Types
- Cache
- Operational Characteristics
- CPU Selection Factors
- Cooling System Types
- CoolingSystemSelectionFactors
- Demo: CPU & Cooling System
- Summary

Select & Install Power Supply
- Introduction
- Power Supply Specifications
- Power Supply Connections
- Safety Recommendations
- Select the Right Power Supply
- Demo: Power Supply
- Summary

RAM Modules
- Introduction
- RAM Modules
- Single-Sided and Double-Sided
- RAM Configurations
- Types of RAM
- ECC
- Parity
- RAM Characteristics
- Summary

Media Capacity
- Introduction
- Media Capacity
- RAID Standards
- Common RAID Types
- Internal Storage Consideration
- External Storage Consideration
- Summary

Configure System BIOS
- Introduction
- BIOS Memory
- BIOS Components
- Firmware Upgrades
- BIOS Configuration Options
- BIOS Diagnostics
- BIOS Monitoring Capabilities
- Summary