

CompTIA® A+® Certification: Essentials, 2nd Edition

Topic-Level Outline

Days: 7

Prerequisites: Students taking this course should have user-level skills and knowledge of personal computers. These skills and knowledge can be obtained by completing either of the following courses: *Windows 2000: Basic* or *Windows XP: Basic*.

Unit 1: Introduction

- Topic A:** About the manual
- Topic B:** Setting student expectations
- Topic C:** Classroom setup
- Topic D:** Support

Unit 2: Electricity and power systems

- Topic A:** Electricity and electronics
- Topic B:** Static electricity
- Topic C:** Power supplies
- Topic D:** Power conditioning and management
- Topic E:** Power supply troubleshooting

Unit 3: CPUs and motherboards

- Topic A:** Central processing units (CPUs)
- Topic B:** Packaging, slots, and cooling techniques
- Topic C:** Motherboards and system cases
- Topic D:** Motherboard troubleshooting

Unit 4: Basic Input/Output System

- Topic A:** BIOS and CMOS
- Topic B:** The POST process
- Topic C:** Firmware updates
- Topic D:** BIOS and POST troubleshooting

Unit 5: Memory systems

- Topic A:** Memory
- Topic B:** Memory packaging

- Topic C:** RAM installation
- Topic D:** Memory troubleshooting

Unit 6: Bus structures

- Topic A:** Buses
- Topic B:** Host system interaction
- Topic C:** The PCI bus
- Topic D:** Video buses

Unit 7: Expansion cards

- Topic A:** Drive adapters
- Topic B:** Video cards
- Topic C:** Sound cards
- Topic D:** Internal modems
- Topic E:** Legacy device installation
- Topic F:** Expansion card troubleshooting

Unit 8: Ports, connectors, and cables

- Topic A:** Serial and parallel ports, cables, and connectors
- Topic B:** Keyboards, mice, and pointing devices
- Topic C:** USB ports, cables, and connectors
- Topic D:** FireWire ports, cables, and connectors
- Topic E:** Infrared and Bluetooth wireless ports
- Topic F:** Multimedia ports, cables, and connectors
- Topic G:** Port, cable, and connector troubleshooting

Unit 9: Data storage devices

- Topic A:** Hard drives
- Topic B:** Optical drives
- Topic C:** Removable storage devices
- Topic D:** Tape drives and backup systems
- Topic E:** Storage device troubleshooting

Unit 10: Video and multimedia input/output devices

- Topic A:** Cathode ray terminals
- Topic B:** LCDs and other video technologies
- Topic C:** Sound input and output devices
- Topic D:** Scanners and cameras

Unit 11: Printers

- Topic A:** Dot matrix printers
- Topic B:** Inkjet and related printer technologies
- Topic C:** Laser printers
- Topic D:** Other types of printers

Unit 12: Portable computers and devices

Topic A: Notebook computers

Topic B: Component replacement

Topic C: Handheld computers

Topic D: Portable computer problems

Unit 13: Operating system management

Topic A: Directory and file management

Topic B: System management

Topic C: The Registry

Unit 14: Operating system monitoring

Topic A: System monitoring

Topic B: Event Viewer

Unit 15: Operating system maintenance

Topic A: Windows Backup

Topic B: Hot fixes and services packs

Unit 16: Operating system troubleshooting

Topic A: The Windows boot process

Topic B: Operating system troubleshooting

Topic C: Remote administration

Unit 17: Connecting computers

Topic A: Networking concepts

Topic B: Wired network connections

Topic C: Wireless network connections

Topic D: Network architectures

Unit 18: Networking computers

Topic A: LAN configuration

Topic B: Resource sharing

Topic C: Internet connections

Topic D: Wireless nodes

Unit 19: Troubleshooting network connections

Topic A: Network troubleshooting

Unit 20: Security

Topic A: Operating system security

Topic B: Auditing and logging

Topic C: Security hardware

Topic D: The human aspects of security

Topic E: Network protection

Unit 21: Windows installation and upgrades

Topic A: Installation

Topic B: Upgrades

Unit 22: Safety

Topic A: Safety and hazards

Topic B: Safe work practices

Topic C: Disposing of computer equipment

Unit 23: Maintaining the PC environment

Topic A: Toolkits

Topic B: PC maintenance

Topic C: Preventative hardware maintenance

Unit 24: Professionalism and communications

Topic A: Toolkits

Topic B: PC maintenance

Topic C: Preventative hardware maintenance