

CompTIA A+ Course Outline

Duration: 40-50 Hours (Global Standards)

Level: Beginner to Intermediate

Delivery Mode: Online/Offline

Certification: CompTIA A+

Global Exam Codes: 220-1101 and 220-1102 (Latest Versions)

Module 1: Introduction to IT and the CompTIA A+ Certification

Duration: 2-3 Hours

- Introduction to IT and the Role of IT Professionals
 - Overview of the CompTIA A+ Certification and Exam Structure
 - Global Industry Standards and Opportunities for A+ Certified Professionals
 - Key IT Terminology and Concepts
 - Job Roles in IT Support: Technician, Network Specialist, Helpdesk Support
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Module 2: Hardware Fundamentals

Duration: 8-10 Hours

- Overview of Computer Hardware Components
 - CPU, RAM, Motherboards, Storage Devices (HDD, SSD), Power Supply Units
 - Expansion Cards: Video, Audio, Network, and Storage Cards
 - Peripheral Devices: Keyboards, Mice, Printers, Scanners
 - Identifying and Installing Internal and External Hardware Devices
 - Hands-on Lab: Assembling and Disassembling a Computer
 - Diagnosing and Troubleshooting Hardware Problems
 - Power Issues, POST Errors, and Boot Failures
 - Identifying Faulty Components and Replacing Parts
 - Hardware Maintenance Best Practices
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Module 3: Operating Systems Installation and Configuration

Duration: 6-8 Hours

- Installing and Configuring Different Operating Systems
 - Windows 10/11 (Installation, Setup, and Configuration)
 - macOS (Basic Setup and Configuration)
 - Linux (Ubuntu Basics, Installation, and Configuration)
 - Partitioning and Formatting Drives
 - Windows Installation and Configuration Best Practices
 - Understanding File Systems (NTFS, FAT32, exFAT)
 - Installing Drivers and Windows Updates
 - Configuring User Accounts and Permissions
 - OS Virtualization: Overview and Setup (VirtualBox, Hyper-V)
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Module 4: Networking Fundamentals

Duration: 6-8 Hours

- Introduction to Networking Concepts
 - Types of Networks (LAN, WAN, PAN)
 - Network Topologies: Star, Bus, Ring, Mesh
 - OSI and TCP/IP Models
 - Understanding IP Addressing and Subnetting
 - IPv4 vs IPv6
 - Static and Dynamic IP Addressing
 - Basic Networking Devices: Routers, Switches, Hubs, and Modems
 - Wired and Wireless Networking: Ethernet, Wi-Fi
 - Configuring Wireless Routers and SSID Setup
 - Network Troubleshooting
 - Common Networking Issues: Connectivity, DNS, DHCP
 - Network Testing Tools: Ping, Traceroute, nslookup
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Module 5: Mobile Devices and Hardware Support

Duration: 4-6 Hours

- Mobile Operating Systems: Android, iOS Basics
- Configuring and Securing Mobile Devices
 - Setting Up Mobile Email, Apps, and Wi-Fi Connections
 - Securing Mobile Devices: Screen Locks, Encryption, Remote Wipe
- Troubleshooting Mobile Device Issues
- Managing Mobile Device Settings and Application Support

Module 6: IT Security Fundamentals

Duration: 5-7 Hours

- Introduction to IT Security Concepts
 - Confidentiality, Integrity, and Availability (CIA Triad)
 - Common Security Threats: Viruses, Malware, Phishing, Ransomware
 - Configuring Firewalls and Antivirus Software
 - Best Practices for Securing Computers and Networks
 - Using Password Policies, Two-Factor Authentication (2FA)
 - Installing and Configuring Security Tools
 - Securing Wireless Networks: WPA, WPA2, and WPA3
 - Basic Encryption Concepts and Applications
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Module 7: Troubleshooting and Problem-Solving

Duration: 6-8 Hours

- Troubleshooting Methodology: Identify, Diagnose, and Resolve
 - Troubleshooting Hardware Issues:
 - Power Failures, System Freeze, Overheating
 - RAM, CPU, and Storage Problems
 - Operating System Troubleshooting:
 - Boot Problems, Blue Screens, System Lockups
 - Reinstalling Operating Systems and Repair Options
 - Networking Troubleshooting:
 - Diagnosing Connectivity Issues (Wired and Wireless)
 - Troubleshooting IP Configuration and DNS Problems
 - Using System Tools and Utilities for Diagnostics
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Module 8: Operational Procedures and Best Practices

Duration: 4-6 Hours

- IT Professional Best Practices
 - Safety and Environmental Concerns in IT Operations
 - Proper Handling of Computer Equipment and Components
 - ESD (Electrostatic Discharge) and Equipment Care
- Customer Service Skills for IT Professionals

- Communication, Listening, and Documentation Skills
 - Problem Resolution and Handling Difficult Customers
 - Time Management and Task Prioritization for IT Support
 - Documentation and Incident Reporting
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Module 9: Global IT Support Practices and Professionalism

Duration: 2-3 Hours

- Global IT Support Frameworks: ITIL, Helpdesk Support
 - Working in Global IT Environments: Remote and On-Site Support
 - Understanding Cultural Differences in Global IT Support
 - Professionalism in IT: Ethics, Continuing Education, and Certifications
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Module 10: Exam Preparation and Review

Duration: 3-4 Hours

- Overview of CompTIA A+ Exam Format
 - Key Exam Domains Review:
 - Hardware, Operating Systems, Networking, Security, Troubleshooting
 - Practice Exam Questions and Simulations
 - Exam-taking Strategies and Tips
 - Mock Exam and Q&A Session
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Module 11: CompTIA A+ Certification Exam

- Final Exam: CompTIA A+ 220-1101 and 220-1102
- Post-Exam Steps and Continuing IT Career Development