

CompTIA A+ Certification Practical Application Support Skills

Vendor Course Code: G182

Course Length: 5 days

Overview:

This 5-day practical "hands-on" course is the essential foundation for newcomers to PC support. It builds on the skills developed in the companion "CompTIA A+ Certification Essentials Support Skills" course to provide students with the necessary training to ensure proficiency in PC installation and troubleshooting skills. The course has been developed to produce competent PC support engineers who are capable of taking and passing CompTIA's A+ Certification exams or other similar qualifications.

This course will prepare students for the 220-702 CompTIA A+ Certification Practical Application exam for version 2.0 of the 2009 edition objectives (including Windows 7 content) and is approved under the CompTIA Authorised Quality Curriculum program. A+ Certification is internationally endorsed and recognised as the only benchmark vendor-neutral qualification for PC support and troubleshooting. A+ Certification is a prerequisite qualification for employment (and is endorsed) by many leading computer manufacturers and vendors on a global basis.

Skills Gained:

On course completion, students will be able to:

- Manage and optimise Windows using command line tools, administrative consoles and Remote Desktop
- Manage and optimise disks and volumes using command line tools and administrative consoles
- Diagnose and resolve Windows troubleshooting scenarios
- Use anti-virus tools to prevent and recover from malware infections
- Configure and troubleshoot local network and wireless connections and client applications
- Configure and manage users, groups and shared resources
- Configure and troubleshoot access control measures, such as BIOS security, authentication, encryption and firewalls
- Perform preventive maintenance using approved tools and products
- Assemble, disassemble and upgrade PC and notebook components
- Configure and update BIOS/CMOS
- Troubleshoot, optimise and upgrade hardware
- Troubleshoot and maintain printers

Key Topics:

Module 1 / Supporting Windows

Monitoring and Performance Tools

- Command Prompt and Text Editors
- System Information and Monitoring
- Performance Options
- Remote Utilities

Disk and File Management Tools

- Disk and Volume Management
- Navigating Directories at the Command Prompt
- File Management using a Command Prompt

Troubleshooting Windows

- Windows Troubleshooting
- Troubleshooting Applications
- Windows Printer Troubleshooting

Viruses and Malware

- Malware Symptoms
- Anti-virus Software

Module 2 / Supporting Networks

Installing a SOH Network

- Implementing a LAN
- Configuring Network Properties
- Implementing Wireless Networks
- Configuring Client Options
- Configuring Internet Connections
- Voice-over-IP

Network Security

- User and Group Accounts
- Setting Share Permissions
- NTFS Folder and File Permissions
- Troubleshooting File System Security
- Implementing Other Security Mechanisms

Troubleshooting Networks

- Troubleshooting Networks
- Testing TCP/IP
- Troubleshooting Client Connectivity
- Electronic Mail (Email)

Module 3 / Supporting PC Hardware

Maintaining PCs

- Maintenance Toolkit
- Preventive Maintenance

Upgrading and Troubleshooting PCs

- General Installation and Upgrade Advice
- Upgrading and Optimising Hardware
- Disassembling a PC
- Installing Components on the Motherboard
- CMOS Setup
- Troubleshooting Motherboard Components

Upgrading and Troubleshooting Peripherals and Notebooks

- Storage Devices
- Adding and Removing Peripheral Devices
- Upgrading and Troubleshooting Notebooks

Maintaining and Troubleshooting Printers

- Dot Matrix Printers
- Inkjet Printers
- Laser Printers
- Other Printer Types
- Maintaining and Upgrading Printers
- Printer Troubleshooting

Target Audience:

This course is intended for students wishing to qualify with CompTIA A+ Certification for PC Support professionals. It is also suitable for students wanting to improve their skills in PC support and administration. By completing this course, students will also be assisted with entry into a career in ICT. This course will particularly benefit students pursuing a career in supporting desktop personal computer users, in job roles such as Support Engineer, Maintenance Engineer, Desktop Engineer, Computer Administrator, or PC Support Analyst. Study of the course can also help to prepare for other, similar technical support qualifications and act as groundwork for more advanced training, including CompTIA Network+ or CompTIA Server+, CCNA, MCP and MCITP.

Prerequisites:

Students should have completed the A+ Support Essentials Course or previous experience of PC support.

Specifically, it is recommended that students have the following skills and knowledge before starting this course:

- Identify types and characteristics of PC components, including motherboard, CPU, memory, and storage, input, and output devices.
- Install and configure basic peripheral devices.
- Identify types and characteristics of portable computers.

- Install and configure Microsoft Windows 2000 / XP / Vista / 7.
- Perform basic PC maintenance and troubleshooting.
- Understand fundamental principles of securing IT systems and working safely.
- Communicate effectively with customers.
- Install and configure print and imaging devices.
- Understand fundamental principles of implementing LANs and internet access.