

ComPTIA CERTIFICATIONS COURSE



- A+ (Core Hardware)

The programs designed to train participants in all aspect of OC hardware and software and be certified as Computer Network Technician. The program adopts the competency-based training model where it uses a trainee-centered approach and its strength is imparting skills competencies that are actually required in the IT industry.

This course is designed to prepare participants with work-related skills and for certification in the computer service technician career path. Content provides participants the opportunity to acquire knowledge and skill in both theory and practical applications pertaining to troubleshooting, replacing, installing, and upgrading computers. Procedures used in the course may be hardware oriented, software oriented, or programming oriented procedures. Upon completion of the course participants will possess a thorough knowledge of modern personal computer hardware and software structure and be able to challenge the A + Certification exam. This package is designed to provide the participant with the tools to install, configure, upgrade, troubleshoot, and repair Personal Computers and to provide a sound understanding of Computer Networks.

Job Prospects: Positions: Computer network technician, computer support technician, and network administrator, etc Industries: Government department, EDP department (Public and Private Sector), system network provider, education institution, utility companies, and etc.

Computer Technician: This is an ideal course for those individuals seeking work in PC Support, PC Technician, Helpdesk and related jobs and provides the necessary foundation skills for those individuals that wish to move onto the more advanced qualifications such as Microsoft Certified System Engineer, Microsoft Certified System Administrator, Novell Networks and Cisco Certified Network Associate.

A+ CERTIFICATION

This is an ideal foundation course as it will provide the all round knowledge that is required for any individual entering or thinking about starting a job in Computer support. A+ is a solid certification that employers look for and is the industry standard for entry-level computer technicians. Every business uses computers and skilled technicians are in demand. An A+ certification opens the door to an exciting career in computer technology at an affordable price.

This A+ curriculum introduces basic hardware components and teaches about SCSCI devices and how to configure Bus Architecture. It delves into the concepts of memory modules, main boards, and bus architecture and presents participants with both theoretical and practical instruction on the fundamentals of major Operating Systems.

The curriculum presents instruction on system interfaces and the underlying command-line functions and utilities to manage the major operating systems, and on procedures for diagnosing and troubleshooting common operating system problems. Finally, the curriculum presents participants with both theoretical and practical instruction on basic network concepts and terminology, including the networking capabilities of Windows and network protocol configuration.

Who Will Benefit?

The A+ Certification is for people who have strong interest in PC hardware. Participants come from a broad spectrum of experience. Typical job roles may include PC service technician, computer maintenance or help desk support.

Having an A+ certification proves that you have a broad base of knowledge and competency in core hardware and operating system technologies including installation, configuration, diagnosing, preventive maintenance and basic networking.

Hardware

The hardware section of the course introduces basic hardware components and what's inside the computer case. Participants learn about memory and storage devices. Input and output devices and portable computer technology are also covered. Finally, the learner is introduced to system resource settings. The installation section of the course teaches about SCSI devices and how to configure Bus Architecture. Participants learn about internal and peripheral device installation and upgrade. Finally, guidelines for problem isolation, diagnostics and troubleshooting are taught. The course delves into the concepts of memory modules, main boards, and bus architecture. Printer hardware and how to troubleshoot printers is covered. Participants learn about basic network technology and network media, including cables and connectors. The technologies and protocols used for wireless and Internet connectivity are also taught.

Devices and Components

- To identify functions of a computer.
- To match components of a system unit with their functions.
- To identify functions of a power supply unit (PSU).
- To identify characteristics of read-only memory (ROM).
- To identify features of basic input/output system (BIOS).
- To identify functions of a complementary metal oxide semiconductor (CMOS) setup utility.
- To match port types with their functions.
- To identify the functions of a modem.
- To identify types of modems.
- To differentiate between types of portable computers.
- To identify the features of Personal Computer Memory Card International Association (PCMCIA) cards.
- To identify types of portable power sources.

Installation and Troubleshooting

- To identify the components required for Plug and Play (PnP) technology to work.
- To sequence the steps to install an expansion board in a Micro Channel Architecture (MCA) system.
- To identify the features of the Industry Standard Architecture (ISA) expansion bus.
- To sequence the steps for installing a hard disk drive (HDD).
- To identify configuration requirements for installing a modem.
- To sequence the steps for installing disk drive controllers.
- To identify guidelines for troubleshooting.
- To identify guidelines for isolating problems when troubleshooting.
- To identify features of diagnostic software types.

Printers, Networks and Protocols

- To match the types of memory modules with their features.
- To identify operational characteristics of memory.
- To identify the components of a main board.
- To sequence the steps for installing a printer.
- To sequence the steps in the printing process.
- To identify guidelines for choosing printing consumables.
- To match types of networks with their features.
- To match types of network topologies with their features.
- To identify the steps in the client/server communication process.
- To identify features of the Transmission Control Protocol/Internet Protocol (TCP/IP) suite.
- To identify features of the Internet Packet Exchange/Sequenced Packet Exchange (IPX/SPX) protocol suite.
- To identify features of the NetBIOS Enhanced User Interface (NetBEUI) protocol.
- To identify features of point-to-point and broadcast infrared transmission.
- To match antenna types with their features.
- To identify functions of a wireless access point (AP).

Operating Systems

This course presents participants with both theoretical and practical instruction on the fundamentals of major Operating Systems. Learners will be introduced to the procedures for installing and upgrading Windows 9x, Windows NT, Windows 2000, and Windows XP. Windows ME is part of the Windows 9x family. The course will also cover system boot sequences. The course will also present instruction on system interfaces and the underlying command-line functions and utilities to manage the major operating systems. Learners will be introduced to the concepts and procedures for managing disks, file systems, and files, along with procedures for adding and configuring device drivers. The troubleshooting section presents participants with both theoretical and practical instruction on procedures for diagnosing and troubleshooting common operating system problems. Problems with the installation and startup processes, resources for troubleshooting, common problems will all be presented. This course will also cover managing the registry, system files, and memory. The networking section presents participants with both theoretical and practical instruction on basic network concepts and terminology, including the networking capabilities of Windows and network protocol

configuration. This course also covers concepts relating to the Internet and how to set up a system for Internet access.

Installing

- To identify features of Windows 9x.
- To match core components of Windows 9x architecture with their functions.
- To identify phases of the Windows 9x startup process.
- To identify the features of Windows NT 4.0 Workstation.
- To identify key considerations for upgrading from Windows 9x to Windows NT 4.0.
- To identify the core components of Windows NT 4.0.
- To identify features of Windows 2000.
- To identify the pre-installation requirements for Windows 2000.
- To match Windows 2000 installation methods with their characteristics.
- To identify key features of Windows XP.
- To identify the installation requirements for Windows XP.
- To identify preparation options for Windows XP installation.

Configuring and Managing

- To identify key features of Windows desktops.
- To identify features of Windows Explorer.
- To match Control Panel utilities with their functions.
- To identify methods for opening and closing a command prompt.
- To match basic MS-DOS commands with their functions.
- To identify options available when using the ATTRIB command-line utility.
- To match partition types with their descriptions.
- To identify options for creating a primary partition.
- To identify characteristics of the disk DEFRAG.
- To differentiate between NTFS and FAT file systems.
- To identify fundamentals of file system conversion.
- To create a file or folder.

Troubleshooting

- To match common boot failure error messages with their descriptions.
- To match startup messages with their solutions.
- To identify causes of Windows Protection error messages.
- To identify characteristics of a competent customer support technician.
- To identify guidelines for providing phone support.
- To identify guidelines for conducting service calls.
- To identify guidelines for troubleshooting printer problems.
- To configure spool settings for a printer.
- To match common blue screen errors with their descriptions.
- To differentiate between components of the Windows 98 and Windows NT Registry.

- To identify features of the Registry structure.
- To match commands on the Registry Editor menus with their functions.

Network Fundamentals

- To differentiate between network types based on operating systems (OSs).
- To match options available when configuring a network adapter with their functions.
- To identify advantages of Transmission Control Protocol/Internet Protocol (TCP/IP).
- To sequence the steps to establish a dial-up connection.
- To identify features of Digital Subscriber Line (DSL).
- To identify characteristics of Integrated Services Digital Network (ISDN).
- To identify functions and features of an Internet Connection Firewall (ICF).
- To enable Internet Connection Firewall (ICF) on an Internet connection.
- To identify troubleshooting functions of Ipconfig and Winipcfg.