

Technical Support Skills with CompTIA A+

1. Overview

This programme is designed to equip participants with the essential knowledge and practical skills required for maintaining, repairing, and testing personal computer (PC) and handheld device peripherals, as well as understanding the fundamentals of computer networks. Participants will gain hands-on experience in diagnosing and repairing hardware, testing IT systems against specifications, and understanding LAN and WAN network principles. The programme prepares participants for professional performance in the IT support and networking workplace.

This programme includes the CompTIA A+ certification, which participants will be eligible to write upon successfully finishing the programme.

2. Programme Outcomes

- Diagnose faults in personal computer and handheld device peripherals to module level
- Plan the repair of personal computer and handheld device peripherals
- Replace faulty modules in personal computer peripherals
- Restore personal computer peripherals to full service
- Select appropriate test procedures for hardware and software components
- Apply test procedures to both hardware and software
- Collect, analyse, and record test data accurately
- Describe data communication and its fundamental concepts
- Demonstrate knowledge of Local Area Networks (LANs) and their main features
- Demonstrate knowledge of Wide Area Networks (WANs) and their main features
- CompTIA A+ certification:
 - Introduction to IT Support & CompTIA A+
 - PC Hardware Components
 - Peripheral Devices
 - Mobile Devices
 - Networking Fundamentals
 - Wireless & SOHO Network
 - Virtualization & Cloud
 - Operating Systems
 - Security Essentials
 - Hardware Troubleshooting
 - Software & Network Troubleshooting

Qualification:

Certificate of Completion &
CompTIA A+ Certification (upon successfully passing the CompTIA A+ Certification exams)

Duration:

4-Months

Programme Type:

Category B – Workplace-Based Learning Program

Programme ID:

PA0154

SAQA US:

14935, 14908, 14913

NQF Level:

5

Credits:

20

Entry Requirements:

Communication & Mathematical Literacy at NQF 4

Training Options:

Online - Each participant will receive access to an online portal, where all programme materials and resources are available. Training is delivered fully online, and participants will join scheduled Microsoft Teams sessions facilitated by a trainer. This mode provides flexibility and allows learners to participate from any location.

Blended - Blended learning combines both online and face-to-face training. Participants receive access to an online portal for online content, resources, and self-paced activities. Alternatively, the learning material will be emailed to the participant. They also attend scheduled in-person contact sessions with a facilitator, either at the client's premises or providers campus. This approach offers the flexibility of online learning with the added support of guided, interactive sessions.

Face-to-Face - Each participant will receive training resources, which contains all programme materials and resources. Training is delivered through onsite contact sessions, either at the client's premises or providers campus, where a facilitator conducts the sessions in a classroom environment.

Minimum Participants Required:

(1) Online, (1) Blended & (1) Face-to-face

3. Programme Content

- **(14935 US):** Repair peripherals for a personal computer or handheld computer to module level
- **(14908 US):** Demonstrate an understanding of testing IT systems against given specifications
- **(14913 US):** Explain the principles of computer networks
- CompTIA A+ Core 1 & Core 2 Certification

4. Topics

Module 1: Repairing Peripherals

- Introduction to computer and handheld peripherals
- Common faults in peripherals and module-level diagnosis
- Planning the repair process

We trust that the above is in order and look forward to hearing from you for Implementation

- Module replacement techniques
- Testing and restoring peripherals to service
- Safety and professional standards in repair

Module 2: Testing IT Systems

- Fundamentals of IT system testing
- Selecting appropriate test procedures for hardware and software
- Applying test procedures to various IT components
- Collecting and recording test data
- Analysing test results
- Reporting and documentation standards

Module 3: Principles of Computer Networks

- Introduction to data communication concepts
- Overview of LANs: features, components, and operations
- Overview of WANs: features, components, and operations
- Network topologies and protocols
- Basic network troubleshooting and monitoring concepts

CompTIA A+ Core 1 & Core 2 Certification

Module 1: Introduction to IT Support & CompTIA A+

- Role of an IT Technician
- Understanding A+ certification
- Computer system overview

Module 2: PC Hardware Components

- Motherboards, CPUs, RAM
- Power supplies, connectors
- Storage types

Module 3: Peripheral Devices

- Printers, scanners, input/output devices
- Display technologies

Module 4: Mobile Devices

- laptops, tablets, smartphones
- Ports, adapters & configuration

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Module 5: Networking Fundamentals

- Network types, cabling, protocols
- IPv4, IPv6, DNS, DHCP

Module 6: Wireless & SOHO Network

- Wi-Fi standards
- Configuring SOHO routers
- Network security settings

Module 7: Virtualization & Cloud

- Virtual machines
- Cloud concepts (IaaS, PaaS, SaaS)

Module 8: Operating Systems

- Windows, Linux, macOS
- Installation procedures
- System utilities

Module 9: Security Essentials

- Malware, attacks, social engineering
- Authentication, physical security

Module 10: Hardware Troubleshooting

- CPU, RAM, power issues
- Storage failures
- Printer & display troubleshooting

Module 11: Software & Network Troubleshooting

- OS errors, app issues
- Connectivity problems
- Wireless troubleshooting

5. Workplace-Based Learning Programme

This WLP is a fusion of academic learning and practical work. The learning is directly applied to the workplace by using client-based mentors and extensive workplace-based portfolio work and assignments. Apart from the obvious benefits of a workplace directed qualification, each WLP qualifies for recognition as a Category B Skills Programme in the Learning Matrix of the Amended BEE codes, which allows for the salaries of participants to be recognized as part of the Skills Development Expenditure.

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