



## **Professional IT Support & Computer Technician Program**



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### Introduction

The Professional IT Support & Computer Technician program builds a strong theoretical and practical understanding of computer systems, support operations, and technical problem-solving. It introduces learners to the essential structure of modern computing environments, from hardware components and operating systems to networks and cybersecurity basics. It develops the mindset of a dependable IT support specialist who can diagnose issues, guide users, and maintain system stability in professional settings. Participants study how computers are assembled, installed, configured, secured, and maintained across different workplace environments. The course focuses on Windows installation, troubleshooting, help desk communication, and common service desk workflows. Learners gain the knowledge needed to support users with confidence and work effectively as an IT technician or desktop support professional.

### Targeted Groups

This Professional IT Support & Computer Technician program targets professionals seeking knowledge and skills:

- Beginner IT learners entering the computer support field.
- Help desk staff need stronger technical foundations.
- Junior IT support technicians.
- Desktop support and technical support employees.
- Office staff is managing basic system issues.
- Career changers preparing for IT support roles.
- Students seeking computer technician training.

### Course Objectives

Participants will achieve the following objectives by completing the Professional IT Support & Computer Technician course:

- Understand computer hardware components and their functions.
- Identify, assemble, and operate core system parts correctly.
- Install and manage Windows operating systems with confidence.
- Apply basic troubleshooting steps to solve common system errors.
- Explain networking concepts such as IP, DNS, and internet access.
- Distinguish software faults from hardware malfunctions.
- Recognize common cyber threats and apply safe system practices.
- Deliver professional user support through clear help desk communication.

## Targeted Competencies

Participants will gain the following competencies during the Professional IT Support & Computer Technician program:

- Hardware identification and computer assembly.
- Windows installation and system configuration.
- Basic software and hardware troubleshooting.
- Network setup, awareness, and connectivity diagnosis.
- Cybersecurity awareness and endpoint protection.
- User support communication and issue documentation.
- Technical problem analysis and resolution planning.
- Professional desktop support and service desk readiness.

## Studying Scenarios

In this Professional IT Support & Computer Technician training, participants develop skills through the following scenarios:

- The desktop computer won't turn on after a power outage.
- Windows isn't installing correctly on a new machine.
- Help a user who can't connect to the internet or access shared files.
- The computer is running slowly due to a software conflict or malware.
- The printer has stopped responding on the office network.
- A support technician explains a solution to a non-technical user.

## Course Content

### Unit 1: Computer Hardware Fundamentals

- Introduction to computer hardware and its main categories.
- Motherboard, CPU, RAM, storage, and power supply functions.
- Input, output, and peripheral devices in daily use.
- Internal components and their role in system performance.
- Desktop and laptop hardware differences.
- Safe handling, installation, and replacement of parts.
- Hardware compatibility, connectors, and ports.
- Basic preventive maintenance for longer device life.
- Common signs of hardware failure and physical damage.
- A professional computer technician practices component recognition.

## **Unit 2: Assembling and Operating a Computer System**

- Step-by-step understanding of system assembly workflow.
- Preparing tools, workspace, and anti-static safety measures.
- Installing the motherboard, CPU, memory, and storage devices.
- Connecting power, data cables, and front panel headers.
- Installing cooling systems and checking airflow.
- First boot process and BIOS or UEFI awareness.
- Detecting missing parts and assembly errors.
- Basic operating procedures after hardware installation.
- Testing system startup, display output, and device recognition.
- Introductory computer maintenance for stable operation.

## **Unit 3: Windows Installation and Operating System Management**

- Understanding operating systems and their role in computing.
- Windows installation process from bootable media.
- Partitioning, formatting, and setup preparation.
- User accounts, profiles, and basic access control.
- Desktop management, file navigation, and system settings.
- Installing and removing software safely.
- Windows updates, drivers, and essential system tools.
- Managing startup items and background performance.
- Backup awareness and restore options.
- Operating system support for IT support course learners.

## **Unit 4: Troubleshooting, Networking, and Cybersecurity Basics**

- Structured troubleshooting for common computer problems.
- Identifying symptoms, causes, and solution paths.
- Distinguishing software issues from hardware issues.
- Internet connectivity basics and network device awareness.
- IP address fundamentals and simple address concepts.
- DNS understanding and name resolution basics.
- Wi-Fi, Ethernet, and local network access problems.
- Fundamentals of antivirus, malware, and virus protection.
- Safe browsing, updates, and user protection habits.
- Cybersecurity awareness for computer technician training.

## Unit 5: IT Support, Help Desk Practice, and Professional Service

- Role of the IT support specialist in business environments.
- Help desk workflow and issue intake procedures.
- Logging incidents, tracking actions, and closing cases.
- Clear communication with technical and non-technical users.
- Listening skills, patience, and professional tone.
- Remote support concepts and basic user guidance.
- Prioritizing issues based on urgency and impact.
- Supporting printers, email, software, and account access.
- Working effectively in offices, service desks, and technical teams.
- Building readiness for desktop support and computer technician roles.

## Final Insights & Key Takeaways

The Professional IT Support & Computer Technician program builds a solid foundation in hardware, Windows support, networking basics, troubleshooting, and cybersecurity awareness. It prepares learners to support users professionally, solve everyday technical issues, and perform confidently in IT support and desktop technician environments.