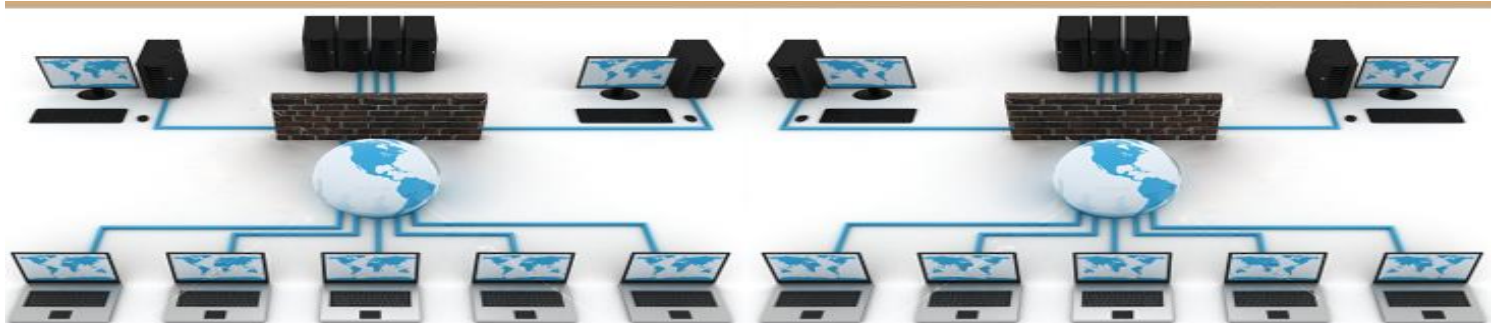




CURRICULUM OBJECTIVES:

The primary objective of this course is to help students prepare for entry-level positions in the ICT field. Job titles include enterprise technician, IT administrator, and field service technician, call center technician, help desk technician and PC or support technician.

In addition, the curriculum helps students gain confidence with the components of desktop and laptop computers by teaching the proper procedures for hardware and software installations, upgrades & troubleshooting.



- Define information technology (IT) and describe the components of a personal computer
- Perform a step-by-step assembly of a desktop computer and install and navigate an operating system.
- Explain and perform preventive maintenance.
- Explain the steps of the troubleshooting process and perform basic troubleshooting
- Configure computers to attach to an existing network
- Implement basic physical and software security principles
- Apply good communications skills and professional behavior while working with customers



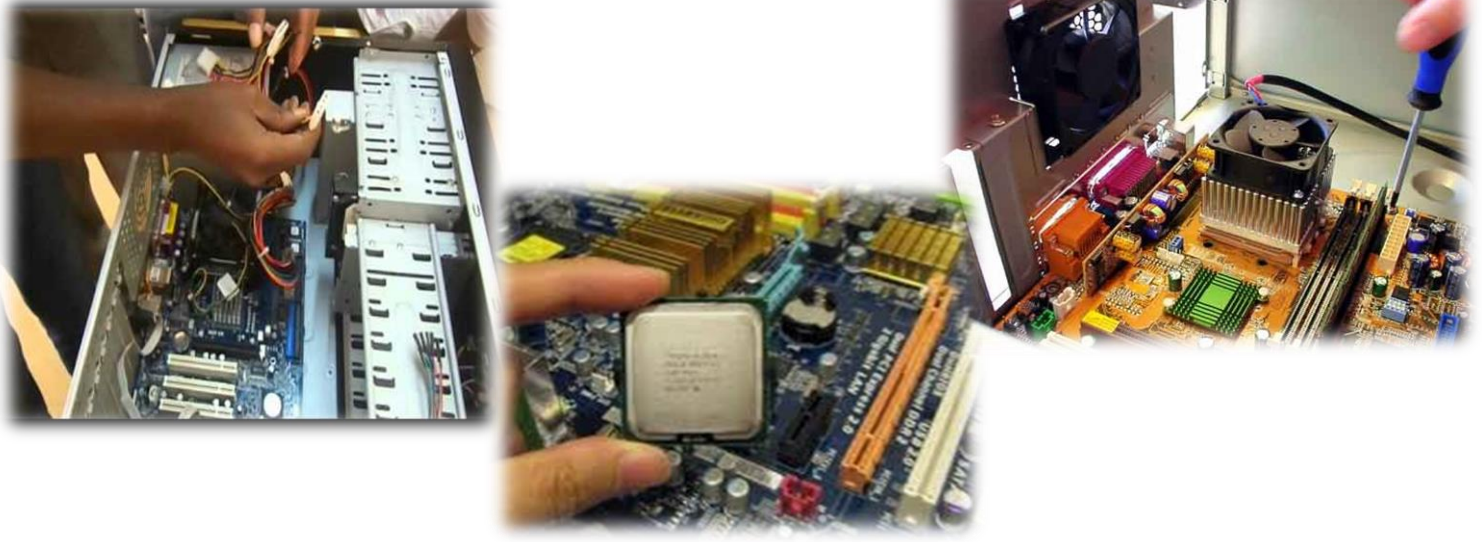
PC HARDWARE AND SOFTWARE OUTLINE:

This course provides an introduction to the ICT industry and in-depth exposure to personal computers, hardware and operating systems.

Students learn the functionality of various hardware and software components and best practices in maintenance and safety issues.



CHAPTER 1. INTRODUCTION TO THE PERSONAL COMPUTER



1.1 Explain IT industry certifications.

1.2 Describe a computer system.

1.3 Identify the names, purposes, and characteristics of internal components

1.3.1 Identify the names, purposes, and characteristics of Motherboards

1.3.2 Identify the names, purposes, and characteristics of Processor

1.3.3 Identify the names, purposes, and characteristics of Memory.

1.3.4 Identify the names, purposes, and characteristics of Adapter cards

1.3.5 Identify the names, purposes, and characteristics of storage drives

1.3.6 Identify the names, purposes, and characteristics of cases and power supplies / cooling System.

CHAPTER 2. COMPUTER ASSEMBLY

2.1 Attach the components to the motherboard and install the motherboard

2.2 Install internal drives

2.3 Install adapter cards

2.4 Identify the names, purposes, and characteristics of CMOS & BOIS

2.4.1 BOIS Upgrading, Configurations & Updating.

CHAPTER 3. FUNDAMENTAL OPERATING SYSTEMS

4.1 Explain the purpose of an operating system

4.1.1 Describe the characteristics of modern operating systems

4.1.2 Describe and compare operating systems to include purpose

4.1.3 Describe desktop & network operating systems

4.1.4 Identify applications and environments that are compatible

4.1.5 Determine minimum hardware requirements and compatibility

4.2 Install an operating system

4.2.1 Prepare hard drive

4.2.2 Install the operating system using default settings

4.3 Troubleshoot operating systems

4.3.1 Review the troubleshooting process

4.3.2 Identify common problems and solutions

CHAPTER 4. HARD-DISK MANAGEMENT & PARTITION

5.1 Hard-Disk management.

5.1.1 External storage devices

5.1.2 Installation of Peripherals and configuring them.

5.1.3 Handling of Synthetic and Effective tools.

CHAPTER 5. SOFTWARE INSTALLATION & TROUBLESHOOTING

6.1 How to install software in PC.

6.2 Common symptom / problem during installation & after installation

6.3 Difference Between x86 & x64.

6.4 Explain how to install service packs and security patches

CHAPTER 6. FUNDAMENTAL SECURITY

7.1 Explain why security is important

7.2 Describe security threats

7.2.1 Define viruses, worms, and Trojans

7.2.2 Explain web security

7.2.3 Define adware, spyware, and grayware

7.2.4 Describe spam and popup windows

7.2.5	Explain data wiping, hard drive destruction and recycling
7.3	Identify security procedures
7.3.1	Explain what is required in a basic local security policy
7.3.2	Explain the tasks required to protect physical equipment
7.3.3	Describe ways to protect data
7.4	Identify common preventive maintenance techniques for security
7.4.1	Explain how to update signature files for anti-virus software
7.4.2	Identify common problems and solutions



CHAPTER 7. PREVENTIVE MAINTENANCE AND TROUBLESHOOTING

8.1	Explain the purpose of preventive maintenance
8.1.1	Identify the steps of the troubleshooting process
8.1.2	Explain the purpose of data protection
8.1.3	Identify the problem
8.1.4	Implement the solution
8.1.5	Verify solution and full system functionality