Module Title: COMPUTER LITERACY

Module Code: CCMCL302

Learning Outcome 1: Apply computer basics.
Learning Outcome 2: Use a current Word processing package.
Learning Outcome 3: Use current spreadsheet package.
Learning Outcome 4.Use current power point presentations version.
Learning Outcome 5. Use Internet/Intranet (outlook).

Learning Outcome 1: Apply Computer Basics.

1. Description of Computer Basics

- **Introduction to Computer**

A **computer** is an electronic device that accepts data (input), processes it, stores it, and produces information (output).

Functions of a Computer

- **Input** – Accepting data from input devices like a keyboard, mouse, or scanner.
- **Processing** – Converting raw data into meaningful information using the CPU.
- **Output** – Presenting results through monitors, printers, or speakers.
- **Storage** – Saving data and information for future use (temporary or permanent).
- **Control** – Directing all activities of hardware and software through the Control Unit.
- **Communication** – Sending and receiving data via networks and the internet.
- **Decision-making** – Performing logical comparisons (e.g., greater than, less than, equal to).
- **Automation** – Carrying out tasks automatically with minimal human intervention.
- **Data Organization** – Arranging and managing files and information systematically.
- **Security** – Protecting information through encryption, passwords, and access controls.

Classification of Computers

Computers are grouped based on **size, power, and performance**:

- **Microcomputers** – Small, low-cost computers for personal or home use.
  - Example: Smartphones, tablets, laptops.
- **Personal Computers (PCs)** – General purpose computers used by individuals.
  - Types: Desktop PCs, Laptops, Workstations.
- **Minicomputers** – Medium-sized computers, used by small organizations to process data.
- **Mainframe Computers** – Large, powerful systems used in banks, airlines, and government institutions.
- **Supercomputers** – The most powerful computers, used for complex scientific calculations (e.g., weather forecasting, space research).

2. Identification of Various Connectors and Ports

- **Computer Connectors**

Connectors are **physical interfaces** used to attach devices to the computer.
Examples: VGA, HDMI, USB, Ethernet, Audio jacks.

- **Computer Ports**

Ports are **slots** where connectors are plugged.
Types:

  - **USB Port** – Connects flash drives, keyboards, and mice.
  - **HDMI Port** – Connects monitors and projectors.
  - **Ethernet Port** – Connects to a network.
  - **Audio Port** – For speakers and microphones.

3. Description of Computer Operations

➢ Peri**pheral devices**

Computers work through **four basic operations** and there are four categories of Peripheral devices :

- **Input devices**
- **Output devices**
- **Computer Storage devices**
- **Process (CPU) devices**

• Input device

An input device is a piece of hardware used to provide data to a computer used for interaction and control. It allows input of raw data to the computer for processing.

Here’s a list of some input devices used in computers and other computing devices:

- Keyboard, one of the primary input devices used to input data and commands. It has function keys, control keys, arrow keys, keypad and the keyboard itself with the letters, numbers and commands.

Two versions of keyboard; QWERTY keyboard and AZERTY keyboard

- Mouse: an input device used to control the cursor and coordinates. It can be wired or wireless.

It allows the user to do the following:

- o Move the mouse cursor
- o Select
- o Scroll
- o Open or execute a program
- o Drag-and-drop
- o Hover

- Microphone: an input device that allows users to input audio into their computers.

Here are some uses of the microphone:

o Audio for video

o Computer gaming

o Online chatting

o Recording musical instruments

- Digital Camera – is an input device that takes pictures digitally. Images are stored as data on memory cards. It has an LCD screen that allows users to preview and review images.

Digital cameras have become popular over film cameras because of the following features:

o LCD screen – allows users to view the photos and videos immediately

o Storage – can store thousands of pictures

o Picture development – allows users to choose and pick which pictures to develop

- Scanner – is an input device that reads an image and converts it into a digital file. A scanner is connected to a computer through USB.

- Touchscreen – is an input device that allows users to interact with a computer using their fingers. It is used widely in laptop monitors, smartphones, tablets, cash registers and information kiosks

• Output device

Output device: is a piece of computer hardware that receives data from a computer and then translates that data into another form.
That form may be audio, visual, textual, or hard copy such as a printed document.
Examples of Output Devices: o Monitor
o Printer
o Speakers
o Headset
o Projector

Computer storage devices

- Computer storage devices: A hardware device that is used to store digital data and applications in the form of video, audio, images, etc.

There are two categories of storage devices;

1. **Primary Storage Device:** This is the direct memory which is accessible to the CPU or Central Processing Unit.

- It is also called the main memory and is volatile.
- This is temporary memory and is lost as soon as the device turns off or is rebooted.
- It is small in size.
- Primary storage consists only of Internal memory.
- E.g., of primary storage: RAM, ROM, cache memory, etc.

Table differentiating ROM from RAM

RAM	ROM
Random Access Memory	Read only Memory
Volatile	Non-Volatile
Read and write both	Only read
Fast	Comparatively slow
Temporary	Permanent

2. Secondary Storage Device

- Secondary storage is commonly used to store backup data that comes from primary storage. The data is copied from the primary storage system to the secondary storage system through the use of replication.

- This type of storage does not have direct access to the CPU (Central Processing Unit).

- The input and output channels help to connect such storage devices to the computer, as they are usually outside.
- It is non-volatile with larger storage capacity compared to primary storage.
- This type of storage is permanent until changed by an external
- It consists of both internal and external memory.
- E.g., of secondary storage: USB drives, floppy disks, and more

• Process device

The processing device is the computer’s hardware component that helps to handle the storage and retrieval of the information. In the Computer, processing devices play a major role in the processing operations. These devices are used to process the data with the use of instructions from the program.

Examples of Processing devices are;

- Processor/CPU
- GPU (Graphics Processing Unit)
- Motherboard

4. Use of Desktop’s Elements

Desktop is the layer on top of which you run all your computer programs. It contains icons, shortcut icons and taskbar.
When using a **Windows desktop environment**, learners should know:

- **Windows and Its Elements**
  - **Desktop** – Main screen that appears after starting the computer.
  - **Taskbar** – Located at the bottom, shows open programs and system tools.
  - **Start Menu** – Provides access to programs, settings, and shutdown options.
  - **Minimize Button** – Reduces a window to the taskbar.
  - **Maximize Button** – Enlarges a window to full screen.
  - **Close Button (X)** – Closes the window.

Learning Outcome 2: Use a Current Word Processing Package

Quick start (assumption)

- Open Microsoft Word.
- Create a new document: **File** → **New** → **Blank document** or click the blank document tile.
- Save early: **File** → **Save As** → choose folder → give a file name → **Save**. (Shortcut: **Ctrl+S** to save after first time.)

1. TEXT FORMATTING

This topic shows how to format the font size, style, and color of text, as well as how to use the bold, italic, underline, and change case commands.
— step-by-step

A. Change font style (Bold, Italic, Underline, font family)

- Select the text you want to format (click and drag).
- Go to the **Home** tab → **Font** group.
- Choose a font family (e.g., Calibri, Times New Roman) from the **Font** dropdown.
- To make text bold: click **B** or press **Ctrl+B**.
- To italicize: click **I** or press **Ctrl+I**.
- To underline: click **U** or press **Ctrl+U**.

Tip: Right-click selected text → quick font options appear for the same controls.

B. Applying Font size

- Select text.
- Home → Font group → **Font Size** dropdown → pick a size (e.g., 12, 14).
- Quick keyboard increase/decrease: **Ctrl+Shift+>** (increase) and **Ctrl+Shift+<** (decrease).

C. Change font color

1. Select text.
2. Home → Font group → click the **Font Color** (A) icon → choose a color.
3. For more colors: click **More Colors…**.

D. Change text case

- Select text.
- Home → Font group → click **Aa** (Change Case button) → choose:
  - **Sentence case**
  - **lowercase**
  - **UPPERCASE**
  - **Capitalize Each Word**
  - **tOGGLE cASE**
- Shortcut: select text and press **Shift+F3** repeatedly to cycle through case options.

E. Apply text effects (shadow, glow, outline)

- Select text.
- Home → Font group → click **Text Effects and Typography** (icon that looks like glowing A).
- Choose **Shadow**, **Reflection**, **Glow**, **Outline**, or **Transform**.
- Click the effect to apply; for more options, choose **Text Effects** → **Options…**.

F. Use Format Painter (copy formatting from one selection to another)

- Select text that has the formatting you like.
- Home → Clipboard group → click **Format Painter** once to apply formatting once, or **double-click** to apply to multiple places.
- With Format Painter active, select the target text (drag over it). Formatting is applied.
- If you double-clicked Format Painter, press **Esc** to turn it off when done.

2. PARAGRAPH FORMATTING — step-by-step

A. Borders and Shading for a paragraph

- Click inside the paragraph (or select several paragraphs).
- Home → Paragraph group → click **Borders** dropdown (square icon).
- Quick options: **Bottom Border**, **Top Border**, **All Borders**, **Outside Borders**.
- For full settings: **Borders → Borders and Shading…**
  - Choose **Setting** (Box, Shadow, 3D), **Style**, **Color**, **Width**.
  - For shading (background color): go to the **Shading** tab and choose a color.
- Click **OK**.