



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



Tshwane South
TVET College

"achieve the future"

SUBJECT: INTRO COMPUTER PRACTICE

LEVEL: N4

MODULE 1: INTRODUCTION TO COMPUTERS

MODULE 1: INTRODUCTION TO COMPUTER

After completing this topic, you will be able to:

- Define the concept computer
- How a computer functions
- Differentiate kinds of computer
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MODULE 1: INTRODUCTION TO COMPUTER

Content

Define the concept computer

How a computer function

Differentiate kinds of computer

Some fields of application for computer

Components of a computer system

The concept computer system and the input, processing and output cycle

Reasons for using computers

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Define the concept computer

A computer can be define as an electronic machine that:

- Receives data from an input
- Carries out arithmetic and logic processing according to a previously compiled set of instructions
- Stores the processed data
- Send the processed data to an output device:
 - for further processing
 - to print the processed data, for example business documents, schedules and manage control reports

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How a computer functions

The steps in data processing on a microcomputer can be represented as follows:



The main advantage of computers is the high speed at which these steps are carried out.

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Different kinds of computer

- mainframe computers

These are the larger commercial computers. They are able to process an enormous amount of data at a very high speed. They are used by governments, insurance companies

- Personal computers

The microcomputer's popularity is still increasing because of its compactness, flexibility and power.

- Laptop

Laptop and notebook computers are portable, lightweight microcomputer.

Tablet(PC)

It is a mobile computer, equipped with a touchscreen or graphics tablet which allow the user to input data by touching the screen with a stylus or using the stylus to write onto the screen.

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- Common handheld portable digital devices

A handheld portable digital devices is a pocket-sized computing device, typically having a display screen with touch input or a miniature keyboard.

- Personal digital assistants

Are special - purpose palmtops that keep phone directories, electronic diaries, calendars and provide calculator abilities.

- Mobile phone

A mobile phone is a communication device, commonly referred to as a cellular phone or cellphone

- Smart phone

A smartphone such as apple's new iphone 3G, is a mobile phone offering Dvnced capabilities beyond a typical mobile phone.

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Some fields of application for computers

- Word processing

Word processing includes the design, creation, editing, manipulation, storage and printing of text with the aid of a program that can be executed by a microcomputer: Microsoft word 2010

Electronic spreadsheet can be used to create tables in which calculation can be done automatically by using formulas and functions. Example of spreadsheet program: Microsoft excel 2010.

- Design and drawing

Special program are used by architects and engineers, for example for designing buildings

- Desktop publishing

Special programs are available to be used in the printing industry for professional printing.

- Accountancy

Accounting program can be used to do the bookkeeping of a company.

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Electronic mail

Electronic mail software allows users to send message to and receive message from other computer users.

The components of a computer system

The following are the hardware components of a personal computer:

Central processing unit	The CPU is the “brain” of the computer: <ul style="list-style-type: none">• Data and instruction are stored here• The functioning of the computer and sequence of processing are controlled here.
Memory	computer memory consists of ROM (read-only memory) and RAM(Random Access Memory)

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A monitor (output device)	data entered via the keyboard, is displayed on-screen
A keyboard	The keyboard is the input peripheral through which one normally communicates with the computer. You use the keyboard to enter data into the computer . The computer reacts to this by displaying the data on-screen.
A mouse	The mouse is a devices that fits into your hand, it is rolled on to surface next to the computer. It is a pointing device can be used instead of the keyboard to move the cursor, activate icons and application and to choose and select commands
Disk drives and disks (storage media)	Enables you to store computer files in the same way that you store your office files in folder in filing cabinets .

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	<p>There are three types of drives:</p> <p>Hard disk drives are generally not removed from the computer and can store large amounts of information.</p> <p>USB flash drives/disk are inserted into the USB port ; they are removable and retrievable storage media</p> <p>CD and DVD drives are used to save files to CD or DVD</p>
Printer	<p>The printer produces paper copies of the information (these are called hard copies)</p>

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The concept computer system and the input, processing and output cycle

- A computer hardware and software performs a cycle of four basic activities:

Input to use a computer effectively we need to be able to communicate with it. First the computer has to be supplied with data and instruction to work on. Input consists of entering data into the computer system by means of the keyboard and the mouse or other input devices.

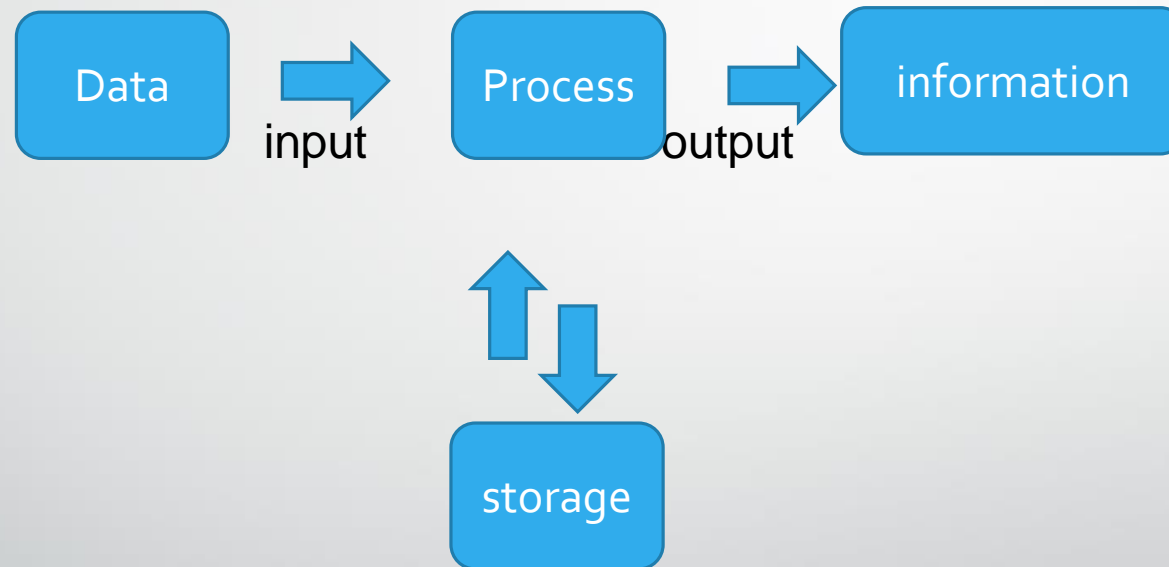
Process the computer then process data

Output when the computer has completed the processing it has to submit the results and this is done by means of output devices such as the printer or the monitor. The computer outputs the results, either on-screen or to the printer.

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Storage

while information is being processed, it is held in the temporary memory until it is stored onto a disk or disk drive. Any information stored on a disk or disk drive can be retrieved again.



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reasons for using computer

Computer have effect every aspect of our day-to-day life, in terms of education, office work, accounting business, communication, shopping and data storage among others.

- The Advantages of computers

- Professional documents: productivity and editing

- Spelling and grammar check

- Communication: electronic mail(e-mail)

- Electronic banking

- Governments

- E-learning

- Practical everyday uses