NATIONAL DIPLOMA IN COMPUTER TECHNOLOGY

INTRODUCTION TO COMPUTING

COURSE CODE: COM 101

YEAR I- SEMESTER I

PRACTICAL

Version 1: December 2008
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WEEK 1
MAIN PARTS OF A COMPUTER SYSTEM

ACTIVITY 1: State the name of the following computer components.

1. 

2. 

3.
ACTIVITY 2: Go to computer lab and ask the computer technician to show you all the components stated in activity 1.

GENERATIONS OF COMPUTERS
**WEEK 2**

**ACTIVITY 1:** In tabular form differentiate the first four generations of computers.

**WEEK 3**

**ACTIVITY 2:** Go to the net to download images of Integrated Circuit and Microprocessor
WEEK 4

HISTORY OF COMPUTERS

ACTIVITY 1: In tabular form draw up the list of people that invented the different types of computers to date.

ACTIVITY 2: Go to the net to download the pictures of the following major contributors to the development of computer: i. Blaise Pascal ii. Babbage iii. John Von Neumann
WEEK 5

CLASSES OF COMPUTERS

ACTIVITY 1: In tabular form classify the following systems into Digital and Analog computers.

1. HP Pavilion PC
2. Differential analyzer
3. Kerrison Predictor
4. Mechanical integrator
5. MONIAC Computer (hydraulic model of UK economy)
6. Operational amplifier
7. Planimeter
8. Rangekeeper
9. Slide rule
10. Thermostat
11. Torpedo Data Computer
12. Water integrator
13. Mechanical computer
14. CASIO desk calculator
15. Sony washing machine

ACTIVITY 2: Investigate the design objectives of hybrid computers.
ACTIVITY 1: Complete the chart below.

ACTIVITY 2: Investigate the features of the following operating system: Windows, Unix and Linux.
ACTIVITY 1: Investigate different types of compact disks.

ACTIVITY 2: Outline major differences between primary and secondary storage.

ACTIVITY 3: Classify the following into online and off-line storage

1. CD-ROM
2. Floppy disk
3. RAM
4. Cache Memory
5. Registers
ACTIVITY 1: State the names of the 4 items that are attached to system bus in the diagram below.

ACTIVITY 2: Investigate the differences between Intel MMX and Intel Celeron processors.
WEEK 9

COMPUTER SOFTWARE

ACTIVITY 1: Complete the chart below.

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<td>User Application Software</td>
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<td>Operating System</td>
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<td>GUIs</td>
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<td>User Programs</td>
</tr>
<tr>
<td>Language Processor</td>
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<td>Special Purpose</td>
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ACTIVITY 2: Investigate the features of the following operating system: Windows, Unix and Linux.

ACTIVITY 3: Give 10 examples of the following application packages: Word-processing, Spreadsheet, Database.
ACTIVITY 1: Investigate various types of computers that are used in the medical field.

ACTIVITY 2: Give minimum computer configuration that can be used by a law firm.
WEEK 11

DATA PROCESSING MODES

ACTIVITY 1: Classify the following data processing operations as Batch, Real Time and Online processing:

1. Airline Seat Reservation,
2. Theatre Seat Reservation
3. Hotel Room Reservation.
4. Point of Sales
5. Monthly processing of payroll data
6. Weekend processing of Sales order
7. Bank balance enquiries

ACTIVITY 2: Investigate hardware and software requirements for distributed processing.
WEEK 12

DATA COMMUNICATION AND NETWORKS

ACTIVITY 1: Visit computer maintenance lab and ask the lab attendant to show you various data communication media

ACTIVITY 2: Investigate the type of topology implemented in your computer laboratory and itemise the various hardware components used for the topology.
WEEK 13

INTERNET BASICS

ACTIVITY 1: Compare the following web browsers

1. Internet explorer
2. Netscape communicator
3. Fire Fox

ACTIVITY 2: In tabular form differentiate Email and NIPOST system
ACTIVITY 1: Label the parts of the following window

ACTIVITY 2: Visit the computer lab and carry out the following activities to boot a computer system.

- Power on the main switch
- Switch on the stabilizer (if any)
- Switch on the UPS (if any)
- Press the power button for the monitor to switch on the monitor if it doesn’t come on automatically
- Press the system unit’s power button to power the system and wait until windows operating system is loaded.
ACTIVITY 1: Carry out the following steps to format a new flash memory that contains no file. Caution! If you format a disk that contains files, all the files on the disk will be deleted permanently.

Insert the flash disk into USB port
Double click “My Computer” icon on the desktop
Right click “Flash Memory icon” in the window displayed
Click “Format” in the popup menu displayed.

ACTIVITY 2: Use windows notepad to type the following text and save the file on your flash memory using your last name.

Each generation of computer is characterized by a major technological development that fundamentally changed the way computers operate, resulting in increasingly smaller, cheaper, more powerful and more efficient and reliable devices. Read about each generation and the developments that led to the current devices that we use today.

ACTIVITY 3: Create a shortcut of the file created in ACTIVITY 1 on the desktop.