

# Introduction to Computers & Information Technology

## Course outline

- **Basics of Computing: Hardware, Software, Connectivity, and People.**
  - ◊ *Hardware (H/W).*
  - ◊ *Software.*
  - ◊ *Connectivity & Networks; Internet & e-mail.*
  - ◊ *People.*
  
- **Types of Computers & Hardware Basics.**
  - ◊ *Classifying Computer Systems: handheld computers to supercomputers.*
  - ◊ *Main computer's units: Central Processing Unit – CPU, & Memory and other system components, Input Devices, Output Devices, and Secondary Storage Devices.*
  
- **Central Processing Unit – CPU, Memory and other system components**
  - ◊ *CPU:*
    - Control Unit.
    - Arithmetic/Logic Unit.
    - Registers.
  - ◊ *Memory:*
    - Memory types.
    - Memory Features.
  - ◊ *Other system components:*
    - System Clock.
    - System Board.
    - Buses, Expansion Slots and Cards, Ports, Power Supply.
  
- **Computer Processing**
  - ◊ *Binary Coding Schemes.*
  - ◊ *Data representation: Bits, Bytes & words.*

- ◇ *How the CPU Process Data.*
- ◇ *Processing Power.*
- ◇ *Additional Devices for Improving Processing Power.*
- ◇ *Computer Architecture.*
- ◇ *Some Selection Criteria for Computer Systems.*

## ▪ **Input & Output Devices**

- ◇ *Basic Input Devices:*
  - Keyboards.
  - Pointing Devices.
  - Scanning Devices.
  - Image Capturing Devices.
  - Audio-Input Devices.
- ◇ *Basic Output Devices:*
  - Monitors.
  - Printers.
  - Audio-Output Devices.
- ◇ *Combination Input and Output Devices:*
  - Fax Machines.
  - Multifunctional Devices.
  - Internet Telephones.
  - Terminals.

## ▪ **Secondary Storage Devices**

- ◇ *Magnetic Media for Secondary Storage:*
  - Hard Disks.
  - Floppy Disks.
  - Magnetic Tape.
- ◇ *Optical Disk Storage:*
  - Compact Discs.
  - Digital Versatile Discs.
  - High-Definition Discs.
- ◇ *Other Types of Secondary Storage:*
  - Solid-State Storage.
  - Internet Hard Drives.
- ◇ *Criteria for evaluating Storage Devices.*