**Session I: Terms**

**Central Processing Unit (CPU**) – also known as the “brain” of the computer, converts the inputted data (a fact, object, or idea) into usable information

**Computer** – is a machine that performs tasks or calculations according to a set of instructions, or programs. A computer accepts input, processes, stores data, and produces output.

**Desktop computers -** fit on a desk, run on power from an electrical wall outlet, and consist of a system unit, a monitor, a keyboard, a mouse and any other peripheral devices attached to it such as speakers, microphone, and printer. Desktop computers usually cost less then laptop computers.

**Device Driver** – software needed to run peripheral devices, often provided by the manufacturer of the peripheral and may automatically install when the device is initially plugged into the System Unit (Plug-and Play).

**Disk Defragmentation** - consolidates fragmented files on your computer’s hard disk. When you store, change and delete files, the operating system divides the file into small pieces and stores them in any available space. The more changes you have to the file, the more fragmented it becomes. Overtime, both the file and the hard disk itself become fragmented, and your computer slows down as it has to look in many different places to open a file. The Disk Defragmenter is a tool that rearranges the data on your hard disk and reunites fragmented files so your computer can run more efficiently.

**Handheld computers -** feature a small keyboard or touch-sensitive screen, designed to fit in a pocket, run on batteries and be used while you are holding it. Examples of handhelds are PDAs (personal digital assistants), smartphones, e-readers, ipods or mp3 players, portable game systems, and programmable calculators.

**Mainframe computer -** a large, expensive computer capable of simultaneously processing data for hundreds or thousands of users. Mainframes are typically used large companies and governments to provide centralized storage, processing, and management for large amounts of data. Mainframes are called mainframes because they were originally housed in large metal frames.

**Microcomputers** - also known as personal computers, are designed for individual use. PCs usually provide access to a variety of computer applications such as word processing, photo editing, email and internet access. Personal computers are available in desktop configurations or in portable configurations such as notebooks, tablets, and netbooks.

**Motherboard** - serves to connect all of the parts of a computer together. The CPU, RAM memory, hard drives, optical drives, video card, and sound card and other ports and expansion slots all connect to the motherboard directly or via cables.

**Network** – two or more computers connected together

**Notebook computer** (or laptop) - small, lightweight PC that incorporates a screen, keyboard, storage devices, and processing components into a single portable unit. Notebook computers can run on power from an electrical wall outlet or a battery. Small notebook computers are sometimes called netbooks.

**Peripheral Device** – refers to any input or output component that connects to the computer.

**RAM** - which stands for Random Access Memory, is the “working memory” or “short term memory” in the computer. It is a temporary holding area for data, application program instructions, and the operating system. When you start a program, it is loaded from the disk into RAM and remains there until you close the program or the computer is turned off. RAM is the memory that allows the computer user to keep many programs open at once and move between programs. The more the RAM amount, the more programs can be open without the computer slowing down. RAM is usually several chips or small circuit boards that plug into the motherboard. RAM is considered volatile because it’s memory is lost when the power is turned off.

**ROM** - which stands for Read-only Memory, holds the computer’s startup instructions. ROM is considered non-volatile memory because it retains stored information even if the power is turned off.

**Server** - used to process requests and deliver data to other computers over a network. Network servers typically are configured with additional processing, memory and storage capacity to handle the load of servicing client computers. Examples are file servers, web servers, and mail servers. Servers dedicated to a single task are known as dedicated servers.

**Supercomputer** - a large, fast, and powerful cluster of computers linked together to handle a complex task or problem that in the real physical world would be too dangerous. Some examples are:

* Climate researchers model Earth's current and predicted future climate using supercomputers.
* Astronomers and space scientists use supercomputers to study the Sun and space weather.
* Scientists use supercomputers to simulate how a tsunami would impact a coastline or a given city.
* Supercomputers are used to simulate supernova explosions in space.
* Supercomputers are used to test the aerodynamics of the latest military planes.
* Supercomputers are being used to model how proteins fold and how that folding might affect people that have Alzheimer's Disease, Cystic Fibrosis and many kinds of cancer.
* Supercomputers are used to model nuclear explosions, limiting the need for real nuclear testing.

**System Unit** - sometime referred to as the tower, box, or console, is the main part of the computer. It holds the computer’s circuit boards, CPU (central processing unit), power supply, memory, and storage devices.

**Tablet computer** - portable PC featuring a touch-sensitive screen that can be used as a writing or drawing pad. Slate tablets do not have a keyboard, while a convertible tablets do. The convertible tablet is constructed like a laptop but the screen swivels around and folds face-up over the keyboard to provide a horizontal writing surface. Tablet computers are priced slightly higher than notebook computers.

**Windows Desktop Terms:**

**Control Panel** – a collection of tools for customizing Windows system settings so you can work more efficiently.

**Dialog Box** - contains controls for specifying and customizing commands

**Gadgets** - A mini app that stays on screen to provide quick functionality

**Icons** - a graphical representation of a program, hardware device, folder, web link or document

**Recycle Bin** - holds files for deletion

**Start Menu** – a collection of controls for starting programs, searching for files, getting help, adjusting system settings, and shut down your computer.

**Task Manager** - CTRL–ALT -DELETE – offers a way to get information about your computer’s performance and displays a list of software that is currently running.

**Taskbar** – contains several important controls, that help you launch programs, switch between windows, and access system setting.

**Window** - a rectangular area on the screen; Some windows hold applications and files