OPERATING SYSTEMS – Major Features

OS Functionalities (technical) – Course Modules

➢ **Process Concept** – Process Management – System Calls fork(), etc. Processing; Multiprogramming; Multi tasking; Multiprocessing

➢ **Multithreading** – Threaded Execution of Processes – POSIX library, pthreads, thread scheduling ,etc.

➢ **Inter Process Communication** (IPC) – exchange of data across processes, pipe() ; SHM, etc.

➢**Process / Thread Synchronization** – semaphores, monitors, ...

➢**Memory Management** – paging, segmentation, virtual memory, etc.

➢**Device Management** – IO Read, Write system calls etc.

PROCESS CONCEPT - Intro

➢ **PROCESS NOTION**

➢ Program in execution- Programs RUNS!!! – understand the terminology !

➢ Active Program (Process) v/s Binaries-Exe's on HDD (passive!)

➢ Program here is not Source Code!

➢ **Phases of PROGRAM Development (BINARY)**