# Lecture Summaries

## l10

CS343 operating system services is divided into many sub-components . process execution is initiated by GUI mouse clicks / command line entry . a process is a program in execution it is an active entity Process needs resources to accomplish its task .

the process is being created running: Instructions are being executed ready: The process is waiting to processor assignment . the process has finished execution Representation of Process Scheduling Process Control Block (PCB) Process state – running, waiting, etc Program counter – location of instruction to next execute CPU registers . CPU scheduling information- priorities, scheduling queue pointers Memory-management information – memory allocated to the process .

CPU vs I/O Bound Processes Process Scheduling Maximize CPU use, quickly switch processes onto CPU for time sharing . Process scheduler selects among available processes for next execution on CPU . Whenever CPU becomes idle, the OS must select one of the processes in the ready queue to be executed .

the selection process is carried out by the CPU scheduler of the OS . the scheduler selects a process that is in ready state and allocates the CPU to that process . Ready queue can be implemented as FIFO queue Priority queue .