CSC 468F/2204F Lecture Overviews
Fall 1997

Week 2

Introductory process material, from Chapters 6 and 8

- process and program
- process manager as one of the 4 managers in an OS

- OS complexity due to multiple processes sharing hardware at the same time

- process descriptor
- process state diagram (states, transitions, events)

- resource: reusable or consumable

- process creation and structuring

- reference to Unix process management, especially process creation and termination

- basic synchronization principles: need for sharing creates the needs for synchronization and mutual exclusion
- race condition; critical section
- the role of interrupts
- deadlock

- semaphores: P and V atomic actions
    - implementation: interrupts, busy waiting, sleeping
    - semantics

- reference to Unix synchronization