**COMPSCI 377: Operating Systems**

Learning outcomes and Review of Week 2

Things you should know or be able to do

**Lecture 3:**

* System calls are the interface exported by the OS
* How is a system call executed? What is a system call table used for?
* High level library calls are implemented internally using system call (example: printf and write)
* How are parameters passed to a system call?
* Definition of OS kernel
* What is a monolithic kernel? Advantages & disadvantages
* What is layered OS design? Advantages & disadvantages
* What is the microkernel OS architecture? Advantages & disadvantages
* What are OS modules & the modular OS architecture?

**Lecture 4:**

* What is a process? How is it different from a program?
* What information constitutes the process state?
* What are the 5 process execution states? State transition diagram?
* Given a program, list sequence of process execution states
* What is a process control block? What information does it contain?
* How is a new process created? How does fork() behave?
* What do exec & waitpid calls do?
* What does kill do?
* What is the difference between independent & cooperating processes?
* What is shared memory?