Introduction to Operating Systems
Lecture 1: Introduction

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Course Objectives

- Understanding of functions and structures of operating systems
  - Process & Synchronization
  - Memory System
  - File System & I/O System
- Understanding issues in the design of operating systems

Course Info (I)

- Instructor: Gagan Agrawal
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  - Office hour: TBA

- Textbook:

- Prerequisites:
  - CSE360, CSE459.21, and CSE675, or equivalent
Grading

- 2 HWs + 3-4 Labs: 35%
- Midterm: 20%
- Final: 35%
- Best of Midterm and Final: 10%

Submission of HWs and Labs

- HW: hand in before the class
- Lab: Due at 5pm

- Late Policy:
  - 25% penalty for each day
  - You have one chance to be late for one day for one lab without any penalty
Re-Grading Policy

- You have ONE week (after the grade for a HW/Lab/Exam is released into Carmen) to request for re-grading
- You are required to email the re-grading requests to the grader
- After the re-grading period, no re-grading request will be granted for the HW/Lab/Exam

What is an OS?

- Program that acts as an intermediary between system/app programs and the computer hardware
What is an OS?

- Resources
  - Allocation
  - Reclamation
  - Protection
  - Virtualization

Examples:
- CPUs
- Memory
- I/O devices

What is an OS?

- Resources
  - Allocation
  - Reclamation
  - Protection
  - Virtualization

Example:
- Voluntary at runtime
- Implied at termination
- Preemptive
What is an OS?

- Resources
  - Allocation
  - Reclamation
  - Protection
  - Virtualization

- Protect resources from unauthorized accesses
- Related to reliability & security