EECS 111: System Software
Lecture 1

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Lecture 1: Overview

- Course administration
  - EEE course web pages
  - Course communication
- Course overview
  - Description
  - Goals
  - Text book
  - Contents
  - Policies
- System Software Overview
  - Introduction to operating systems

Course Administration

- EEE web pages at **`http://eee.uci.edu/10s/18050/`**
  - Instructor information
  - Syllabus
  - Assignments
  - Schedule
  - Resources
- Course communication
  - Message board
  - Email

Course Description

- EECS 111: System Software
  - Multiprogramming, interrupt, processes, kernel, parallelism, critical sections, deadlocks, communication, multiprocessing, multilevel memory management, binding, name management, file systems, protection, resource allocation, scheduling.
  - Experience with concurrent programming, synchronization mechanisms, interprocess communication.
  - Prerequisites:
    - EECS112; ICS 23 or EECS114.

Course Goals

- Objectives
  - To understand the basic concepts that underlie operating systems.
  - To be able to use operating systems effectively.
  - To be able to design concurrent processes with proper synchronization.
- Outcomes
  - Students will structure concurrent programs composed of processes and threads.
  - Students will describe basic CPU scheduling techniques.
  - Students will describe the principles and techniques for designing and analyzing
    - concurrent processes capable of correct synchronization among themselves.
    - concurrent processes capable of avoiding or recovering from deadlocks.
    - memory management mechanisms including virtual memory.

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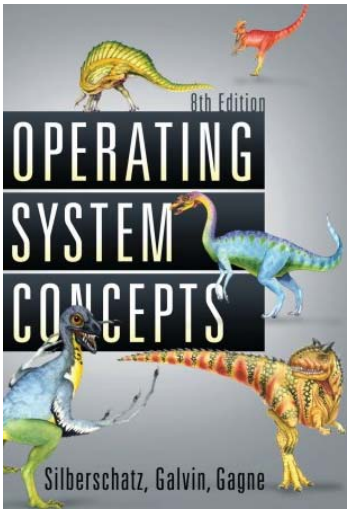
Course Text Book

- A. Silberschatz,
  P. B. Galvin,
  G. Gagne:
  "Operating System Concepts",
  8th Edition,
  John Wiley & Sons, 2009.
  ISBN 978-0-470-12872-5



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6	Memory management	Ch. 8
7	Virtual memory	Ch. 9
8	File system interface	Ch. 10
9	File system implementation	Ch. 11
10	I/O systems	Ch. 13

Course Policies

- Attendance and active participation required
- Weekly / bi-weekly home work assignments
  - Instructions on assignments web page
  - Hard deadline
- Grading
  - 30% Homework assignments
  - 30% Midterm exam
  - 40% Final exam
- Academic Honesty
  - Submit your original work!

System Software Overview

- Introduction to Operating Systems
- Chapter 1
  - *"Operating System Concepts", 8th Edition,* by A. Silberschatz, P. B. Galvin, G. Gagne, John Wiley & Sons, 2009.