

# EECS 211: Advanced System Software Lecture 11

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## Lecture 11: Overview

- Midterm Exam Review
  - Solution
- Assignment 3
  - Priority-based scheduling
  - Producer-consumer example with bounded buffer
- Storage Management
  - File system interface

## Midterm Exam

- Review and Discussion
  - Results
    - Overall positive, most seem to be well on track
    - Some weaknesses in using locks and condition variables
  - Solution
    - `MidtermExam_Solution.pdf`

## Assignment 3

- The Nachos System
  - Task 1: Implement a priority-based scheduler
    - Non-preemptive! (we don't use any `-rs` option this time!)
    - Files `thread.h`, `thread.cc` and `scheduler.cc`
  - Task 2: Bounded buffer for safe communication
    - Template code provided, `threadtest.cc.W11templateA3`
    - 2 producer and 2 consumer threads with different priorities
    - Add missing synchronization using locks, condition variables
- Deliverables
  - Brief explanation (in body of email)
  - Scheduler: `thread.h`, `thread.cc`, `scheduler.cc`
  - Bounded buffer: `threadtest.cc`
  - Log file: `log.txt`
- Due by email to `doemer@uci.edu`
  - Wednesday, February 23, 2011, at 2pm (sharp!)

## Storage Management

- Excerpts from chapter 10 of  
“*Operating System Concepts*”, 8<sup>th</sup> Edition,  
by A. Silberschatz, P. B. Galvin, G. Gagne,  
John Wiley & Sons, 2009.
- Storage Management
  - File System Interface