# EECS 211:
# Advanced System Software
# Lecture 12

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# Lecture 12: Overview

- Assignment 4
  - Discussion:
    - Priority-based scheduling
    - Producer-consumer example with bounded buffer
- Assignment 5
  - User programs and system calls in Nachos

- Storage Management
  - File-System Implementation

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# Assignment 4

- Schedule
  - posted Feb 3, 2008 (week 5)
  - due Feb 14, 2008 (week 6)
- The Nachos System
  - Task 1: Implement a priority-based scheduler
    - Non-preemptive
  - Task 2: Bounded buffer for safe communication
    - Template code provided
    - 2 producer and 2 consumer threads
- Deliverables
  - brief explanation (in body of email)
  - **thread.h, thread.cc, scheduler.cc**
  - **threadtest.cc**
  - Email to doemer@uci.edu

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# Assignment 5

- Schedule (two-week assignment!)
  - posted Feb 20, 2008 (week 7)
  - due Mar 5, 2008 (week 9)
- User programs and system calls in Nachos
  - Task 1: Implement exception handling and system calls
    - Implement **ExceptionHandler()**; handle 9 exceptions
    - Implement **SystemCall()**; handle 7 (out of 9) system calls
  - Task 2: Validate using small test programs
    - "good" programs: **Hello.c**, **Name.c**, and **View.c**
    - "bad" programs: **Zero.c**, **Read.c**, and **Write.c**
- Deliverables
  - **addrspace.h, addrspace.cc, exception.cc**
  - **Hello.c**, **Name.c**, **View.c**, **Zero.c**, **Read.c**, **Write.c**
  - brief explanation (in body of email)
  - Email to doemer@uci.edu

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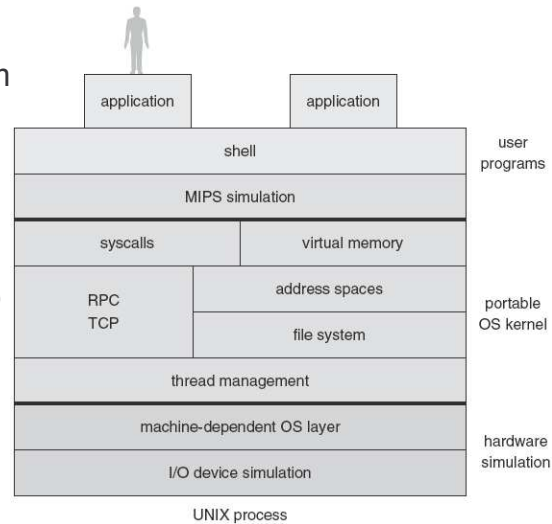
## Assignment 5

- Overview
  - The Nachos System

    - User code:
      emulated by
      MIPS simulator

    - Kernel:
      normal (debug'able)
      Unix process

    - I/O System:
      simulated by
      std. process I/O



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## Storage Management

- Excerpts from chapter 11 of
  *"Operating System Concepts",* 7th Edition,
  by A. Silberschatz, P. B. Galvin, G. Gagne,
  John Wiley & Sons, 2005.

- Storage Management
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