

Syllabus
CS 111
UCLA
Spring 2015

The textbook for this class will be Principles of Computer System Design, by Jerome H. Saltzer and M. Frans Kaashoek. The first 6 chapters of this book are in the printed volume, while the last 5 are only available online. Reading assignments from these later chapters will include a URL to access them.

Note on assignment due dates: These are tentative, and may be changed at the discretion of the TAs. If due dates of assignments are changed, the TAs will announce those new due dates before the dates listed on this syllabus.

Week 1 (March 30 – April 5)

Lecture 1: Introduction

Lecture 2: Operating System Basics

Week 2 (April 6 - 12)

Lecture 3: Hardware Issues for Operating Systems

Lab 1A due April 10

Lecture 4: Modularity and Virtualization

Week 3 (April 13 - 19)

Lecture 5: Processes

Minilab 1 due April 17

Lecture 6: Scheduling

Week 4 (April 20 – 26)

Lab 1B due April 23

Lecture 7: Process Communications and Concurrency

Lecture 8: Critical Sections and Synchronization

Week 5 (April 27 – May 3)

Lecture 9: High Level Synchronization and Deadlock

No second lecture this week due to the midterm

Week 6 (May 4 – 10)

Lab 1C due May 6

Lecture 10: Memory Management and Virtual Memory

Lecture 11: Device I/O and Drivers

Week 7 (May 11 - 17)

Lecture 12: File Systems Design

Lab 2 due May 13

Lab 1 design project due May 15

Lecture 13: File System Implementation

Week 8 (May 18 – 24)

Lecture 14: File System Naming and Robustness

Lecture 15: Networked and Distributed File Systems

Minilab 2 due May 22

Lab 2 design project due May 24

Week 9 (May 25 – 31)

Lab 3 due May 27

Lecture 16: Networking and Operating Systems

Lecture 17: Distributed Operating Systems

Week 10 (June 1 - 7)

Lab 4 due June 3

Lab 3 design project due June 5

Lecture 18: Operating System Security: Basic Concepts and Cryptography

Lecture 19: Operating System Security: Problems, Solutions, and Privacy Issues

Lab 4 design project due June 8

Final Exam: Friday, June 12, 8-11 AM