Operating Systems

ECE344
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Operating Systems Are Everywhere
Reading

Any recent edition is fine.
High-level Overview

- OS structure, system calls, processes, threads
- Synchronization
- Inter-process communication
- Scheduling
- OS architecture
- Memory management

- Lectures on assignments
What’s the Take-away at the End of the Day

• General idea of what an OS is and what it involves
• Multi-threading and synchronization
• Memory management
• Assignments (!!!)
What this Course is Not About

• This course is not about Windows, Linux, any given system
• … programming for Windows, Linux, …

What this Course is About

• The course takes a more general approach
  – looking under the hood of an OS,
  – abstracting from the details of a given system
  – presenting concepts and algorithms
How to Approach the Course

• The course material is *fairly simple*
• The assignments are *harder*

• That means focus on the assignments and work hard
• The course material will come to you easily
Assignments

• You need to know your tools
• C, emacs/vi, gcc, gdb, …
• You will learn about
  – Large systems
    • OS/161
    • SYS/161
Assignment Infrastructure

- OS / 161
- Sys / 161
- Solaris / Linux
- ugsparc / …
Labs will Go Live Next Week

• We may post labs and Assignment 0 prior to next week
• The learning curve is fairly steep, start reading and playing with the OS
• You may use it at home (you’re on your own)
  – Linux
  – Cygwin/Windows
• At the end of the day things have to run on ugsparc