Operating Systems

CS 502

Topics

- Background
- Admin Stuff
- Motivation
- Objectives
- Operating Systems!

Professor Background

- Dr. Mark Claypool (professor, "Mark")
- Systems guy
  - operating systems
  - distributed systems
  - collaborative systems
  - (multimedia performance)
- TRS-DOS, MS-DOS, Win95, Solaris
- *WindowsNT/2000* and *Linux*

Student Background

- Who are you?
  - Name
  - Class (1st year, 2nd year …)
  - Major (CS, EE, ND, Basket Weaving ...)
  - Degree (BS/MS, M.S., Ph.D. …)
- C experience
- Operating Systems?
- Other
  - What do *you* want out of this course?

Syllabus Stuff

- http://www.cs.wpi.edu/~claypool/courses/502-Su01/
- TA: Choong-Soo Lee
- Office hours:
  - M 11-12, W 3-4 (more by appointment)
  - (see Web page)
- Email
- Text Book

Course Structure

- Prerequisites
  - C programming (must)
  - Machine organization (recommended)
  - Unix (recommended)
- Grading
  - Homework (20%)
  - Exams (50%)
  - Projects (30%)
  - Attendance (100% … kidding)

Homework

- "Paper" problems
- Designed to get you ready for exam
- Stress ideas taught in class
  - (Oh yeah, do come to class)
- Not done in groups

Exams

- 2 exams
- 50% of grade
- Non-cumulative
- Closed-note
- Closed-book
- Closed-friend
- One-page Crib-sheet

Projects

- 4 projects
- Implementation in Unix
  - If done elsewhere, port to CCC
  - turnin
- Can be done in groups
- Project 0
  - Basic linux
  - Do not turn in, but for your own good if you do not know Unix

Slides

- On the Web
- PPT and PDF
- Will try and print
  - Sometimes changes so electronic version most up to date
- Caution! Don't rely upon the slides alone! Use them as supplementary material
  - (come to class)

Why This Class?

- WPI CS requirements
  - "core course"
- Combines CS concepts
  - algorithms, languages, data-structures, hardware
  - system design w/tradeoffs
- Better use of the computer
- C programming in Unix environment
  - Much (most?) systems development in Unix
- Fun!

Course Objectives

- Theory of Operating Systems
  - problem solving homework
- Implementation of systems issues
  - hands-on projects
- Latest OS concepts
  - *Windows NT* and *Linux* as examples
  - Supplementary research papers