CS4513 Distributed Computer Systems

Mark Claypool

Topics

- Background
- Admin Stuff
- Motivation
- Distributed Computer Systems!

Professor Background (Who am I?)

- Dr. Mark Claypool (professor, "Mark")
  - Systems
  - CS3013 Operating Systems
  - CS4513 Networks
- Research interests
  - Networks (routing, congestion)
  - Multimedia performance

Syllabus Stuff

- http://www.cs.wpi.edu/~claypool/courses/4513-B02/
- Teaching Assisstant:
  - Choong-Soo Lee
- Office hours:
  - Mon 9:15-10, Wed 1-2, Fri 4-5
  - See Web page
- Email
  - cs4513_ta@cs, cs4513@cs

Text Book

- Two books:
  - Operating Systems text (Silberchatz or Tanenbaum)
  - "Distributed Systems", by Tanenbaum and van Steen
- "Recommended" texts

Topics

- Introduction
- File Systems
- Communication
- Processes
- Naming
- Synchronization
- Consistency and Replication
- Fault Tolerance
- Security

Course Structure

- Prerequisites
  - Operating Systems (CS3013, recommended)
  - Unix development experience (recommended)
  - No networking experience required
- Grading
  - Exams (55%)
  - Projects (45%)

Exams

- 3 exams
- 55% of grade
  - Middle exam slightly smaller
- Non-cumulative
- Closed-note
- Closed-paper
- Closed-friend
- One-page "crib-sheet"

Projects

- 3 projects
- Implementation in Linux!
  - For project 1, at least
- Individual
- Apply concepts taught in class
  - 0- Fossil introduction
  - 1- File Systems
  - 2- …

Slides

- On the Web
- PPT and PDF
- Caution! Don't rely upon the slides alone! Use them as supplementary material
  - (come to class)
- See *timeline* and *reading list*, too

Why This Class?

- WPI CS requirements
  - (Gotta take 4000-level *something*)
- Systems are cool!
  - algorithms, networks, hardware…
  - (Computer "gear-head")
- Programming
  - The more you do, the better a scientist/software-engineer you are
  - Today, all systems are distributed
- Fun!