

CS533 Concepts of Operating Systems

Class 1

**Course Overview
and
Entrance Exam**

About the Instructor & TA

- Instructor - Jonathan Walpole
 - Professor at PSU
 - Professor and Director Systems Software Lab at OGI
 - Ph.D. Lancaster University, UK
 - Research Interests: Operating Systems, Parallel and Distributed Systems

- TA - none

Course Overview

- ❑ Based on ~35 research papers
 - Read them carefully!
 - Submit a written review of each paper BEFORE class!
- ❑ Class structure
 - Student presentations
 - Instructor-led discussion
- ❑ Course web page
 - www.cs.pdx.edu/~walpole/class/cs533/spring2009/home.html

Topics

- ❑ Multi-threading and concurrency
- ❑ Event-based systems
- ❑ Message passing and RPC
- ❑ System structuring using layers
- ❑ Modular kernels and extensibility
- ❑ Virtualization and specialization
- ❑ Concurrency and scalability on modern CPU architectures

Grade Structure

- Paper reviews - 20%
 - Email to me before class (walpole@cs.pdx.edu)
- Paper presentations - 30%
- Midterm exam - 20%
- Position paper - 10%
- Final exam - 20%

Paper Presentations

- ❑ Your paper assignment is posted on the web page
- ❑ Your presentation should last ~20 minutes
- ❑ Emphasize key ideas, not irrelevant details
- ❑ Do the necessary background reading!
- ❑ Prepare a formal presentation with slides
- ❑ Send me a draft presentation in time for me to review it and give you feedback
- ❑ Make sure your presentation is of high quality!!!

Position Papers

- ❑ Short paper (<1500 words)
- ❑ Your chance to summarize
 - current OS research trends
 - future directions
- ❑ By the end of this class you should have a clear understanding of OS research directions and challenges
- ❑ I want to know what you think
 - ... not a straight summary of the papers we have studied

Before Class 2

- ❑ Visit the class web page
www.cs.pdx.edu/~walpole/class/cs533/spring2009/home.html
- ❑ Find your first paper assignment
 - I will post them by Wednesday
 - Email me if there is a problem!
- ❑ Read class 1 papers and papers for class 2
 - I will present the papers for class 1 and class 2
- ❑ Submit paper reviews as directed on the class web site

Entrance exam

- ❑ Are you in the right class?
- ❑ Answer all the questions!
- ❑ Keep your answers concise!
- ❑ Clarify what you know, and what you don't know
- ❑ Unless you hear otherwise, you are ok to continue with the class