Course Overview
About the Instructor

Instructor – Jonathan Walpole
Professor at PSU
Research Interests: Operating Systems, Parallel and Distributed Systems
Course Overview

Based on ~30 research papers
- Read them carefully!
- Submit a written review of each paper BEFORE class!

Class structure
- Lectures
- Instructor-led discussion

Course web page
www.cs.pdx.edu/~walpole/class/cs533/fall2014/home.html
Topics

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

Paper reviews - 20%
Midterm exam - 25%
Final exam - 25%
Project - 30%
Project

Linux-based
C and x86-64 assembly language programming
Implement a user-level threads library
  - threads
  - context switching
  - scheduler
  - synchronization
  - concurrent programming
Before Class 2

Visit the class web page
www.cs.pdx.edu/~walpole/class/cs533/fall2014/home.html

Read papers for class 1 and class 2

Submit paper reviews as directed on the class web site

Start looking at project assignment 1
Entrance Exam

CS533 requires foundational knowledge in OS and related topics
  - We test for this on day 1

If you pass you continue with CS533, otherwise you take CS333 and pass it with a B or better before coming back to CS533

In rare cases you may require prerequisite courses for CS333 too