CSC 2227S: Topics in the Design and Implementation of Operating Systems

Information Sheet

Instructor:

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Course web site: http://www.cs.toronto.edu/~demke/2227/S.15

Lectures:

Time: Wednesdays, 1-3pm
Place: BA 5205

Description:

This course examines the design, implementation and analysis of selected aspects of operating systems with a focus on networked systems. It covers topics such as: resource naming and discovery, scheduling and load balancing; fault-tolerance, availability, and persistence; distributed communication models; and storage. We will explore these topics in the context of a variety of distributed system designs including grid, cloud, peer-to-peer and cluster systems. This is a seminar-style course based on occasional lectures, paper presentations by students, and discussions of readings. The focus is on the principles used in the design of networked   systems and algorithms and data structures used in their implementation. Readings include case studies, seminal papers, and recent conference and journal articles.

Requirements:

Paper Summaries

You will be expected to read approximately 2-3 papers each week, and produce a short (less than half a page) review of each. Guidelines on preparing reviews will be given in class and are posted on the course webpage. Reviews are due before the beginning of class. Evaluation will be on a complete/incomplete basis; each review is worth roughly 1%.

Project & Poster Session

The goal of the project is to have you design, construct and evaluate an interesting software system. The system should explore issues, solve problems or exploit techniques from classroom discussions or papers. Suggested project topics will be provided, however, you are encouraged to develop your own proposal. You will be asked to present the results of your project in a class poster session at the end of the term.

Paper Presentation & Discussion

Each student will present and lead the discussion of at least two papers during the term. Participation in class discussions is required.

Grading:

Project	50%
Summaries	20%
Paper Presentations	20%
Class Discussion	10%
TOTAL	100%