Operating Systems

Fall 2007
CS 33211

Instructor

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Teaching Assistant

to be determined…

Course Prerequisites

The *Undergraduate Catalog* lists the prerequisites for this course as *CS 35101 Computer Architecture* and a grade of "C" or better in CS *33001 Data Structures*. Equivalent courses taken elsewhere are also acceptable.

Course Overview

The goal of this course is to provide an introduction to the internal operation of modern operating systems. In particular, the course will cover processes and threads, mutual exclusion, CPU scheduling, deadlock, memory management, and file systems. If time permits, we may briefly examine networking and distributed computing or other topics related to operating systems.

Textbook

The required textbook for this course is:

- *Operating Systems Concepts, 7th Edition*,
  Silberschatz, Galvin, and Gagne, Wiley, 2007, ISBN: 0-471-69466-X

You should purchase a copy of this textbook and keep up-to-date in reading the material assigned at each lecture. Saving some money by ignoring the textbook and concentrating solely on my lecture notes would not be a wise idea.

Class Web Page

The web page for this class is **http://www.cs.kent.edu/~walker/classes/os.f07** (a link to this page is available on my home page).

The web page will contain links to the current class syllabus and schedule, lecture notes, homework assignments, exams and solutions, etc. It will also contain links to previous instances of this class. You might want to check the web page on a regular basis, in particular when a homework assignment is outstanding or an exam is eminent.

Lectures

Students are expected to attend each lecture. I do not take roll and I understand that it may occasionally be necessary to miss a class, but in general I expect you to attend each lecture and to be in the classroom when I start my lecture. If too many students start skipping class, or coming to class late, I reserve the right to give a "pop quiz" at the beginning of class that will count as a homework assignment in determining your course grade.

I generally hand out all or most of my slides for each lecture, and put the slides online on the class web page. You should _**not**_ consider skimming these slides to be an adequate substitute for attending the lecture, as my lectures consist of more than me simply reading my slides to the class.

In my lectures, I will use both the "official" slides provided by the textbook authors, as well as some slides of my own. My slides are drawn from a variety of sources. The required text provides much of the material, although some material may be drawn from other books on operating systems. I have also used lecture notes from other professors as source material, in particular old notes by John Ousterhout (as modified by Kathryn McKinley, Bradley Chen, Mendel Rosenblum, and Tom Anderson), Divyakant Agrawal, Steve Chapin, Paul Farrell, and Mikhail Nesterenko.

Homework Assignments

There will be approximately 3-4 homework assignments during the semester. Assignments and due dates will be announced as the semester progresses.

_**No**_ late homework submissions will be accepted unless you make _prior_ arrangements with me, or have a _documented_ illness (in which case I expect you to contact me as soon as possible).

Exams

There will be two midterm exams (held during class) and a final exam (held during finals week). Exam dates will be announced as the semester progresses.

All exams are closed book and closed notes, and must be individual work. It is expected that you take each exam at the scheduled time, unless you make _prior_ arrangements with me or have a _documented_ illness (in which case I expect you to contact me as soon as possible).

Grades

Your final course grade will be broken down as follows:

- Homework assignments (3-4)   40%
- 2 midterm exams   40%
- Final exam   20%

The final course grade will be determined with A = 90–100, B = 80–89.99, etc. There will be no curve at the end of the course, so you should always be able to determine your course grade.

Academic Integrity

Student-teacher relationships are built on trust. Students must trust that teachers have made appropriate decisions about the structure and content of the courses they teach, and teachers must trust that the materials that students turn in are their own. Acts that violate this trust undermine the educational process. In this course, the penalty for _**any**_ act of academic dishonesty is a final course grade of F.

Students "Sitting In"

Students who want to unofficially "sit in" on the course for any reason should contact me as soon as possible. In general, I allow sit-ins if there is space in the room, but I will not grade any assignments or exams for anyone other than officially-enrolled students.

Instructor Absences

Over the course of the semester, I will have to miss a few classes to attend a conference or other professional meeting. I realize that it may be frustrating to hear that your instructor is going out of town, instead of always being in the classroom to teach the class that you are paying him to teach.

However, I have two answers to those frustrations. First, you are choosing to attend classes at Kent State University — a research-oriented university with a flourishing graduate program — instead of a liberal arts college or community college. Professors at research-oriented universities are generally expected to attend conferences and professional meetings on a regular basis as a way of staying current in their fields, and by staying current, presumably bring knowledge that is more up-to-date than most textbooks into the classroom, which benefits you as a student. Second, by attending those meetings, I make other professionals aware of Kent State, which increases your visibility and the value of your degree.

I will make every effort to minimize these absences, or to arrange for my class to be covered during my absence in such a way as to avoid disrupting the flow of the class. When this is not possible, it may occasionally be necessary for me to cancel a class, or to schedule a makeup class at some other time, but such occurrences are usually rare.

Students With Disabilities

University policy 3342-3-18 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Disability Services (contact 330-672-3391 or visit http://www.kent.edu/sds for more information on registration procedures)