Operating Systems Course Syllabus

Jeffrey D. Oldham

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Course

Course: CS4320 Operating Systems

Prerequisites: CS2321

Course Goals and Objectives

This course explores the design and implementation of operating systems, i.e., the software that eases use of a computer's hardware resources. Among the topics we will cover are

- the history of operating systems
- the four areas of resource management:
  - process management
  - memory management
  - file system management
  - input/output management
- case studies of operating systems
  - MS-DOS
  - UNIX (or possibly Linux)
- distributed operating systems.

Instructor

Instructor: Jeffrey D. Oldham

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Office Hours: Tuesdays and Thursdays 1:30–4:30pm, Wednesdays 10:00am–2:00pm

Text

Modern Operating Systems by Andrew S. Tanenbaum, Prentice Hall, 1992.

Additional References

To read more about operating systems, try some of the following resources. These books should be available at the library, at bookstores, or in Gerald Pitts's collection. If you know of other useful resources, e.g., Linux books, please let me know.

- Kaare Christian, *The Unix Operating System*, Wiley Interscience.
- A. M. Lister and R. D. Eager, *Fundamentals of Operating Systems*, fifth edition, Spring-Verlag, 1993.
- Marshall Kirk McKusick, Keith Bostic, Michael J. Karels and John S. Quarterman, *The Design and Implementation of the 4.4BSD Operating System*, Addison-Wesley, 1996.
- William Shay, *Introduction to Operating Systems*, Harper Collins.
- Abraham Silberschatz and Peter Baer Galvin, *Operating System Concepts*, fifth edition, Addison-Wesley, 1998.
- Dionysios Tsichritzis and Philip Bernstein, *Operating Systems*, Academic Press.

Work and Grades

Grades will be determined from programming and homework assignments, an in-class test, a comprehensive final exam, and class participation. Letter grades will be determined using a B or B- centered curve.

assignments		50%
in-class test	14Oct	15%
final exam	11Dec, 8:30am	25%
class participation		10%
total		100%

Collaboration

Discussion of the assignments is encouraged, but you must submit your own work. You are cheating yourself if you get the program from some source other than creating your own. (For group assignments, collaboration and joint submission of work is appropriate.)

Programs that are identical beyond coincidence are in violation of the Academic Integrity policy of the university and will result in disciplinary action, including, but not limited to a failing grade on that assignment for all parties involved. You are responsible for the security of your work, both electronic and hard copy.