COLBY COLLEGE
Computer Science Department

CS357—Operating Systems **Allen B. Downey**
Spring 2000

Syllabus

Professor: Allen B. Downey (downey@colby.edu)

Office: Mudd 417, x3672

Class time: Tuesday and Thursday from 9:30 to 10:45am in Mudd 405.

Textbook: Silberschatz and Galvin, *Operating System Concepts*, Fifth Edition, Addison-Wesley.

Class-related email: I don't use a Macintosh or any Microsoft products, so please don't send me attached documents in formats other than plain text.

Web page: The handouts that I produce (as opposed to the ones I photocopy from other sources) will be available from the class web page. The URL is http://rocky.colby.edu/cs357

1 Coursework

Work in this class will include readings from the textbook and from additional sources I provide, a roughly-weekly series of written lab reports, quizzes, three in-class exams, a two-hour final exam, and in-class activities.

The total course load is intended to be 12 hours per week (including class time); the load should be spread evenly across the semester.

Grading: Final grades are primarily determined by exams, homeworks and quizzes. Class participation can also affect the final grade by up to a full letter.

Exams: The exams are scheduled for February 22, March 14 and April 11. The final exam is scheduled for exam period 8. There will be no makeup exams for any reason. If you miss one exam for an extremely legitimate reason, your final grade will be based on the other two exams. If you miss an exam without a legitimate reason, you will receive a zero. If you miss two exams for any reason, you cannot pass the class.

Quizzes: There will be a number of in-class quizzes during the semester, usually for 10-20 minutes at the beginning of a class session. There will be no makeup quizzes for any reason, but at the end of the semester I will drop each student's lowest quiz score.

Assignments: There will be weekly assignments, usually due on Thursdays. Some will involve written exercises, and will generally be done individually. Some will involve the design, implementation, and report of software experiments; these homeworks will generally be done in groups of two.

In each case, I will make it clear what kinds of collaboration are acceptable. In all cases, it is unacceptable to present someone else's work as if it were your own. Unless stated otherwise, I will assume that all work you hand in is yours and yours alone. If you work with another student, you must acknowledge that student's contribution in writing on your assignment. If you get help from me or a TA that constitutes a significant part of the assignment, you should acknowledge that, too. If you are not sure, err on the side of caution.

2 Approximate calendar of topics

We will be following the order of presentation in the book for the most part, covering about one chapter per week.

Topic 1: Intro to operating systems and UNIX
Topic 2: Review of computer architecture
Topic 3: The OS from the programmer's point-of-view
Topic 4: Processes
Topic 5: CPU Scheduling
Topic 6: Process Synchronization
Topic 7: Deadlock
Topic 8: Memory Management
Topic 9: Virtual Memory
Topic 10: File-Systems, interface and implementation
Topic 11: Distributed file systems
Topic 12: I/O Systems