

CSCI 331: *Operating Systems*

General information

The instructor for *CSCI 331* is Dean Brock. The course will meet on Monday from 6:00 PM to 8:30 PM.

The textbook for the course will be *The Design and Implementation of the 4.3BSD UNIX Operating System* by Leffler, McKusick, Karels, and Quarterman, published by Addison Wesley (ISBN 0-201-06191-1). Depending on your past experience, you may also find it useful to buy a tutorial on C or Unix, as both will be used quite a bit in the course.

In this course you will see how an operating system is implemented through a detailed study of one particular operating system, 4.3BSD, a version of UNIX developed at the University of California at Berkeley. I plan to cover process management, I/O services, and system initialization, *i.e.*, all sections of the textbook except Part 4, "Interprocess Communication". Approximately one chapter per week will be covered in class. The subject matter is difficult so plan on two readings of each chapter, one before and one after the lecture.

Grades will be based on a combination of graded homework and three in-class exams. In the weighing of graded material for the assignment of final grades, homework will count one-half and the in-class exams, one-sixth each. The first exam will be early in the semester, probably the third class, and will be a quiz on the top-level structure of BSD4.2. The second exam will be given in late March, and the final exam will be given in the last week of scheduled classes to accomodate UNCA's deadline for grades for our graduating seniors.

There will be about five programming assignments using the computers in the Department's Unix workstation lab. A typical assignment will involve about 70 lines of C code. In addition, expect to complete at least one written review of an article describing one of the many *modern* commercial versions of Unix, *e.g.*, SunOS, Ultrix, AIX, OSF/1.

My office hours are Tuesday, Wednesday, and Thursday from 1:30 PM to 3:00 PM. However, I do frequently read electronic mail and sending a message to my computer account, `brock@cs.unca.edu`, is generally the best way to get a prompt response.