# CSCI 243: *Introduction to Algorithm Design*

*General information*

The instructor for *CSCI 243* is Dean Brock. The course will meet on Tuesday and Thursday from 3:05 PM to 4:20 PM. The textbook for the course is T. M. Smith's *Intermediate Programming Principles and Techniques Using Pascal*, published by West Publishing Company (ISBN 0-314-66314-2). We will cover almost the entire book this semester following something like this schedule:

| | | |
|---|---|---|
| Pascal | | 2 classes |
| Developing programs | Chapter 1 | 1 class |
| Simple data types | Chapter 2 | 2 classes |
| Structured data types | Chapter 3 | 3 classes |
| Files | Chapter 4 | 2 classes |
| Linked lists | Chapter 5 | 3 classes |
| Stacks and queues | Chapter 6 | 2 classes |
| Recursion | Chapter 7 | 2 classes |
| Trees | Chapter 8 | 2 classes |
| Graphs | Chapter 9 | 3 classes |
| Searching | Chapter 10 | 3 classes |
| Sorting | Chapter 11 | 2 classes |

It is assumed that all students have had a one-semester programming course using a modern programming language, such as FORTRAN. Consequently, little time will be devoted to teaching programming language syntax. Within four weeks, you will be expected to write Pascal programs comparable to the last assignments of CSCI 142 or 201. The remainder of the semester will be devoted to a thorough study of data structures.

Grades will be based on a combination of graded homework, including about five programming assignments, and exams, two in-class exams and one final. In the weighing of graded material for the assignment of final grades, homework will count one-third, the in-class exams, one-sixth each, and the final exam, one-third. The first in-class exam will be the first week of October, and the second, sometime close to the Thanksgiving break. The final exam will be Thursday, 19 December, 3:05 PM to 5:35 PM.

Students will be given accounts on UNCAVX, a VAX 4000 running the VMS operating systems, to work on programs. If you prefer you may also write your programs using *Turbo Pascal*, a Pascal compiler for IBM PC clones. All programs must be submitted *both* in machine readable form, either by turning in your program on a computer disk or by saving your program in a file on UNCAVX, *and* as a signed printout.

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") is generally the best way to get a prompt response during those late, late hours you'll be working.