COMPUTER SCIENCE 290 Object-Oriented Programming

INSTRUCTOR: Marc Thomas

TEXT: C++ How to Program, by Deitel and Deitel.


DESCRIPTION: This course has two main objectives. The first is to learn object-oriented programming using the C++ language. The second is to develop maturity with the core ANSI C language itself, always concentrating on writing modular and structured programs. If you do not have a copy of Kernighan and Ritchie’s book on ANSI C I would strongly recommend buying one.

Chapters 1–5 concentrate on structured programming in C++ but you will be familiar (through your knowledge of C) with much of this material. We will cover these sections fairly quickly concentrating on those features which are new.

The powerful features of C++ really begin in Chapter 6 with an introduction to Classes and Data Abstraction. We will cover Chapters 6–18 in detail. The topics discussed in Chapter 18 are not, strictly speaking, object-oriented but the issues raised here are very important with regard to writing portable code.

The laboratory session will in general parallel the lecture. It will cover both writing and debugging code, modularity and structural issues, platform dependency issues and runtime libraries, some esoteric features of C, and algorithm issues.

GRADING: Two midterms will be given, each worth 25%. I do not give make-up midterms; for an excused absence I count the other grades proportionately higher. One final exam, comprehensive but emphasizing the later material, will be given. It is mandatory and worth 25%. Homework and lab work are together worth the remaining 25%. From the teaching of this course numerous times, the instructor has observed that it is virtually essential to do the homework and labwork in order to learn the material well. We are required now to inform all students that the last day to drop any course for a serious and compelling reason is October 27.