Fundamentals of Computer Science in C
V22.0051-002

Ernie Campbell

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Course Web Site – http://cs.nyu.edu/~campbell/V220051.html

Basic Information

Time: Tuesdays and Thursdays, 11:00 am to 12:15 pm
Location: 102 Warren Weaver Hall
Office: 4-19 Warren Weaver Hall, 998-3301 (no voice mail)
Office Hours: Tuesdays, 1:00 pm to 2:30 pm

Staff

Instructor: Ernie Campbell
E-Tutor: Jared Stone
Grader: TBA

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1 Overview

This is an introductory programming course focusing on designing logical strategies to solve problems and on translating these strategies into working computer programs. In the process, students learn the C programming language.

2 Audience

Although the course is open to all, it is primarily intended for students belonging to one of the following three groups:

- information system majors in the Stern School of Business;
- students in the joint engineering program with the Stevens Institute of Technology; or
- computer application minors in the College of Arts and Sciences.

In particular, computer science majors (minors) can not use this course as credit towards the major (minor) sequence. Students who are not enrolled in the course but wish to be should see Robin Simon (room 404 WWH).

Although the course has no prerequisites, “computer literacy” is assumed. Prior programming experience is helpful, but not required. But students without programming experience may wish to consider taking V22.0002 (Introduction to Computers and Programming) instead of this course.

3 Objectives

1. Students will gain in-depth understanding of the principles, concepts and practices of successful software development.

2. Formal problem solving strategies will be presented. Program design methods and strategies including top down implementation will be discussed and implemented.

3. Software engineering principals will be practiced in a systems view.

4 Class Format

Students learn the material through the combination of class lectures and discussions, in-class demonstrations and activities, textbook readings, and programming assignments. In addition to class time, students should be prepared to spend several hours per week on the latter activities.
5 Materials

The textbook is *C, How to Program*, by Deitel and Deitel (Prentice-Hall, 3rd edition); it may be purchased at the NYU book store. All other materials (programming assignments, class presentations, etc.) will be posted on the course web site and/or delivered by email.

6 Programming Assignments

There will be several assignments, at least one every other week. Assignments will increase in difficulty as the semester progresses. Students are advised to always remember the *Golden Rule of Programming*.

Programming assignments take much longer to complete than expected.

Students submit their programming assignments electronically directly to the course grader. Grades will be distributed electronically as well.

The official programming environment for this course is Borland C++ Builder (version 6) software, on the PC platform. Students with home PCs may use a trial version of this program that is distributed on the CD-ROM accompanying the textbook for a limited amount of time; many will eventually purchase a full fledged version. Students without home PCs may work either in the ITS labs or, if they are Stern students, the Stern labs.

Students are free to use any software/platform that they wish, with the following caveat – the program must work when translated by the Borland C++ Builder compiler.

7 Assessment

A student’s final grade is primarily based on the following three components (weights are approximate).
Final grades are “curved” in the sense that they are based on *relative* performance. Factors such as class attendance and participation will be taken into account.

### 8 Getting Help

Students experiencing difficulties have several resources at their disposal:

**E-Tutor** Jared Stone is available to answer questions specifically concerning programming assignments by email; face-to-face meetings are not possible.

**Instructor** Students can “drop” in any time during my office hours to discuss *anything* relevant to the course. Also, students are free to send non-assignment related questions to me by email.

**Class Email List** Students are encouraged to send questions and/or observations of a general nature to the class email list.

### 9 Honor Code

Programming assignments are to be completed independently and must be original work. There are *no* group assignments in this course, and copying of other students’ programs in part or whole is expressly forbidden.

It is permissible to discuss *general* ideas with other students (although there is a fine line between this and cheating, so students are better off getting assistance from the electronic tutor or instructor). If this results in significant help, it must be acknowledged in the program documentation.

### 10 Important Dates

- **Tuesday, 24 September** last day to drop *without* a grade of “W”
- **Tuesday, 22 October** *Midterm Exam*
- **Tuesday, 5 November** last day to drop *with* a grade of “W”
- **Thursday, 28 November** Thanksgiving (no class)
- **Wednesday, 11 December** final class meeting
- **Tuesday, 17 December** *Final Exam* (10:00 am to 11:50 am)