SYLLABUS

CSC201 Computer Organization and Assembly Language

Fall 2000

Section 002, Dr. Douglas Reeves

This course is for students majoring in Computer Science, or wishing to get into the major. It is about programming, but it's not a programming class. We study a particular programming language called *Assembly Language*, as a means of understanding how computers are structured and how they work. Most of the discussion is applicable to almost any general purpose computer. At some point we will use as a detailed example the assembly language of the Intel x86 architecture, simply because it's the most successful architecture around.
Why is this worth studying? If you're planning on becoming a computer architect, designer, or tech support person, the answer is obvious; you have to know how computers work. Most computer science students wind up working on software, however. For those students, I have lots of reasons, but I'll give the main ones here: to build and use software tools (such as operating systems, graphics systems, compilers, database systems, interpreters, etc.) effectively, you need to understand how they work, which depends a great deal on the architecture of the computer. In addition, there is a surprising amount of software where minimum size and maximum performance still matter (example: embedded computing), and for those cases, assembly language programming is often required.

Who am I?

I've been a faculty member at NC State for 13 years, and have taught this course several times. It's a subject I enjoy, and enjoy teaching. The ways you can reach me are shown below:

When	Where
Right before and after class	In the Classroom
1:15pm-2:15pm, Mon-Wed	Withers 220 phone: 515-7479
Any other time	450 EGRC (on Centennial Campus) email: reeves@eos.ncsu.edu phone: 515-2044

Textbook

An Assembly Language Introduction to Computer Architecture Using the Intel Pentium
By Karen Miller, published by Oxford University Press
See URL http://www.oup-usa.org/isbn/019512376X.html for a full description

Prerequisites

CSC210 with a grade of C or better is a prerequisite for this course.

Computing facilities

When you write programs you will be using Microsoft's Visual C/C++ compiler to code, execute, and debug them. We may at some point also use Microsoft's MASM assembler.

We have the use of the Windows NT PC lab in Daniels 122; I will give out the door lock combination in class, so you can get in there at any time. From these PCs you can access your EOS locker space; it looks just like another (networked) drive. I intend to have help available for you in the lab when you are working on programming assignments.
If you prefer to use your own computer, that's fine, as long as you have the C/C++ compiler on your system.

How the course is run

We meet 3 days a week (Mon-Wed-Fri) at 11:20am-12:10pm in Daniels 216 (please note the room change). I'll start with announcements, handouts, and return of graded assignments and exams. Please try to be on time; you'll miss important stuff otherwise. I encourage you to ask questions and raise points during lectures; the extra value of a lecture (as opposed to videotape or books) is in the interaction it allows.
The calendar shows what the reading and homework assignments are, what the topics are, when exams are held, etc.

Grading

25% Homework (5 Assignments, each 5%)
40% In-class exams (4 Exams, each 10%)
30% Final
5% Attendance and spot quizzes

Course Average	Letter Grade
97.5 and up	A+
92.5-97.4	A
90.0-92.4	A-
87.5-89.9	B+
82.5-87.4	B
80.0-82.4	B-
Etc.	Etc.

If you have a reasonable aptitude for this subject, are willing to put in a respectable effort, and have good study habits, you should wind up with either an A or a B in this course. My goal is to help you get there.
Excuses for turning in homework late or missing an exam must be cleared with me in advance, and should be rare (and unavoidable). Emergency absences should be reported immediately upon return to class. In either event, a chance to make up the work without penalty will be given.

Academic integrity

I hope it is unnecessary for me to say any of this.
The university code of student conduct is at URL http://www.fis.ncsu.edu/ncsulegal/41.03-codeof.htm.
Your signature on any test or assignment implies that you neither gave nor received unauthorized aid.
With respect to programming, the only code you should use is what I give you for the assignment, or code you have seen in the textbook or in lectures. Copying code from other sources, or giving code to another student to copy, is not acceptable. When in doubt, check with me first.
Cheating will be reported, and will be punished with one or more of the sanctions found in section 13 of the code.