Computer Organization and Architecture I
CS 2290

Instructor   Angel Nikolov
Prerequisites   CS 1150

Course Content

This course is intended to serve as an introduction to technical programming on IBM PC compatible architecture. The hardware of the *Intel 80X86* series of processors will be covered in some detail. We will spend the better part of the course programming in assembly language.

Topics to be covered will include the standard conditional and control flow constructs, interrupts, string processing as well as basic video operations (text and graphics), macros, procedures as well as parameter passing and other stack oriented operations. We will also deal with interfacing assembly with higher level languages, including embedded code or as independent external routines.

The lab portion of the course will provide students with hands on programming experience with *Borland's* Turbo Assembler. Choice of higher level language is restricted to *Borland* C compilers.

Laboratories

Scheduled Lab facilities, the J wing computer lab (J101).

Text

Theory   **Assembly Language Programming** for the IBM PC Family, 2nd Edition
            By William B. Jones
            Scott Jones Publishers

Lab   **Turbo Assembler (Software/Manuals)** (in the library)

Marking   Lab Quizzes,
                Lab Assignments,
                Homework Assignments   :   25%
                Midterm   :   30%
                Class Quizzes   :   10%
                Final Exam   :   35%

Special Notes

You will be eligible for a passing grade in this course, only if you obtain 37 out of a possible 75 marks in the **Theory/Concepts** portion of the course.