Welcome everyone!

I am a member of the Computer Science and Engineering Department. My research interests include parallel processing (known as multi-core processing today), reconfigurable architectures and nanotechnology. My teaching interests include computer architecture, digital logic and parallel processing. My B.S. and M.S. degrees are in Electrical Engineering. My Ph.D. is in Computer Science.

I will teach you CS 2214 Computer Architecture and Organization which is simply known as Computer Architecture. It is the second digital hardware course at NYU Tandon School of Engineering.

Below, is the course description in the catalog:

This course covers is a top-down approach to computer design. Topics: Computer architecture,

Prerequisites:

- CS-UY 2204 for computer engineering majors;
- CS-UY 2134 (C- or better) and MA-UY 2314 for computer science majors.
- Students who are neither computer engineering majors nor computer science majors can take either CS-UY 2204 (C- or better) OR CS-UY 2134 (C- or better) and MA-UY 2314.

ABET competencies: a, c, e.

The course is on computer architecture and organization. These are two of the nine layers of a computer that are worked on when a computer is designed.

Computer architecture is often viewed as the machine language instruction set of a computer, meaning the set of commands that the computer performs to run C++, Java, etc. programs. Computer organization is the set of hardware resources needed to run machine language instructions. These hardware resources include the microprocessor and the main memory.

Most of our time this semester will be spent on designing the microprocessor and the main memory of a computer that we will call EMY. The microprocessor is similar to a commercial microprocessor called MIPS which is mostly used for embedded applications today. Embedded applications include robots, cell phones and cable set top boxes.

We will design the EMY microprocessor by using the state machine design approach which is the way many digital devices we use today are designed. Overall, after this semester students will be able to design computers and embedded systems.

The course requires considerable time commitment from students: 3 lecture hours a week and 2 recitation hours a week. Plus, the time to meet with teammates to do the homework together.

As you see above, there are four recitation sections. If you cannot register because the recitation section is closed, please rearrange your schedule to register to another recitation section. Please also note that students change their schedule in the beginning of the semester and so a closed recitation section becomes open. Please also read my comments about the course at my home page (http://cse.poly.edu/haldun). Also, please see the CS advisor Ms. Susana Garcia (sgarcia@nyu.edu) or me if you have problems with your registration to the course.

My goal throughout the semester will be that you enjoy the course. During our lectures and recitations we will describe what you can do to achieve that. In addition, we will discuss what industry does and expects from its employees, meaning how you can be successful after graduation. We will stress that you practice
these in college. Following our suggestions will allow you to learn more and enjoy the course.

Please let me know if you have questions. I will answer them as soon as I can. I prefer face-to-face conversation, but you can send me email anytime: haldun@nyu.edu.

Have a good semester.

Haldun Hadimioglu