New York University Tandon School of Engineering

Computer Science and Engineering/Electrical and Computer Engineering
Course Outline CS6133 [Computer Architecture I]
Fall 2006
Professor Siddharth Garg
Friday 6:00PM; Pfizer Auditorium (Dibner)

To contact professor: sg175@nyu.edu
2 Metrotech, 10.076
Office hours: Friday 1PM-3PM or by appointment

Course Pre-requisites Basic knowledge of digital logic and computer organization is assumed.

Course Description A uniprocessor computer is built from the blocks developed. An assembly language and an instruction set are presented. Processor implementation with a data path and hardwired and microprogrammed control is introduced. Performance evaluation of computers is studied. Basic pipelining is introduced to improve system performance. Memory-hierarchy alternatives are introduced to improve the capacity of the computing system. Techniques to exploit instruction level parallelism will be studied.

Readings

The required text for the course is:
John L. Hennesy and David A. Patterson, "Computer Architecture: A Quantitative Approach" [5th Edition], Morgan Kaufmann.

Course structure

Your performance in the course will be assessed via homeworks (3 HWs, 20% of total grade), labs (3 HWs, 20% of total grade), a midterm (25% of total grade) and a final (35% of total grade).

In addition, there will be ungraded in-class quizzed and exercises. Participation in these activities is highly encouraged.

A detailed class schedule with topics covered in each week and in the HWs/labs is posted on NYUClasses under "Syllabus."

Policy on Academic Honesty

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