University of Connecticut
Department of Computer Science and Engineering
CSE 243: Introduction to Computer Architecture and Hardware/Software Interface
Spring 2004

Lecture: Tu/Th 2-3:15pm, Monteith 101

Lab: Section 1: Wed 10am-12pm ITEB138
Section 2: Wed 12-2pm ITEB 134

Instructor: Ion Mandoiu
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Teaching Assistant: Chadi El Kari
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Office hours: Thu 12-1 and by appointment

Prerequisites: CSE 207 and CSE 208W

Course Goals: This course will give you an in-depth understanding of the structure and operation of modern digital computer systems and the tradeoffs present at the hardware-software interface.

Course Content: Topics to be covered in lectures include basic machine organization and abstractions, performance evaluation, integer and floating-point arithmetic, instruction set architectures, single and multiple cycle data path and control, pipelining, memory system organization, the I/O subsystem. The lab will cover basic MIPS assembly language programming using the SPIM simulator.

Textbook (required): David A. Patterson and John L. Hennessy. *Computer Organization and Design - The Hardware/Software Interface, Second Edition*, Morgan Kaufmann Publishers, Inc. Web Extensions available at *http://www.mkp.com/cod2e.htm*

Grading: The final grade will be based on bi-weekly homework assignments (20%), a mid-term exam (20%), a comprehensive final exam (30%), bi-weekly lab assignments (30%).

Homework Policy: Homework assignments are due at the beginning of the lecture on the due date. Lab assignments are due by e-mail to chadi@engr.uconn.edu by midnight of the due date. To allow timely grading and dissemination of solutions, *no late assignments will be accepted* except for documented medical emergencies.

WebCT: We have a WebCT website for the class. Check this site regularly for class-related materials, grades, changes in class schedule, and other announcements.

Collaboration and Academic Integrity: Discussions with other students on homework problems and lab assignments are strongly encouraged; you are particularly encouraged to use the discussion tool on the WebCT site for course related discussions. However, submitted solutions to the homework and lab assignments *must be your own work*. Violations will be reviewed and sanctioned according to the University Policy on Academic Integrity.