CSE268 (Fall 2007): Microprocessor Laboratory

Instructor: Z. Jerry Shi, ITE 365, 486-0599, zshi@engr.uconn.edu

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Schedule: Lecture: Monday 2 – 2:50pm, ITE 125
Lab: Monday 3 – 6pm, ITE C31

Office Hour: Instructor: by appointments.
TA: TBD.

Website: http://www.engr.uconn.edu/~zshi/course/cse268/
And WebCT.

Text: Manuals and reference books available online or in the lab. See the course website for details.

Course goals: The focus of this laboratory course is architecture features of modern processors. In the course, we will:

- experiment with RISC instruction sets,
- gain insight into features enabling multi-tasking computation,
- evaluate the impact of caching on processor performance,
- evaluate the impact of new workloads on processor performance,
- experiment with serial communications.

Structure: The course consists of seven lab projects. Students may propose their own ideas in the last project. Each project involves programming in PowerPC assembly language, C language, or both. The students will work in two-person teams. The lab deliverables include a formal lab report, code, and demo (when requested). The lab report should meet all the requirements specified in *Laboratory Report Requirements*. In addition to the hard copies, an electronic copy of your report and your code should be submitted on WebCT before deadline. All files in a project should be placed in a single ZIP file.

There will be two in-class exams, about one hour each. The exams will test your understanding of the topics covered in the lab projects and those presented in lectures.

Grades: Your grade for this course will be based on the following components:

- lab projects: 70%
- in-lab performance: 10%
- two exams: 20%

Late Policy: If a lab can not be completed by the due date announced in class, you may arrange with the instructor to submit a late report. Late reports without such an explicit arrangement will not be accepted. The grades for late reports will be diminished by 10% of the maximum grade per each day late. For example, a lab that is two days late and that gets 8 out of 10 possible points will be assigned a grade of 8–10 * (10% * 2)=6.