Advanced Computer Architecture -- CS525, Winter 2012

Dr. Fang (Daisy) Tang  
*Office*: Room 8-11  
*Phone*: (909) 869-2157  
*Email*: ftang@csupomona.edu  
*URL*: www.csupomona.edu/~ftang/  
*Office Hours*: W: 2pm-5pm; T/TH: 11am-12pm or by appointment.

**Time and Place:** T/Th, 3:00pm – 4:50pm, 8-345.

**Class Website:** www.csupomona.edu/~ftang/courses/cs525/

**Class Email List:** cs52501@csupomona.edu


**Prerequisites:** CS 365 (or equivalent) or consent of instructor.

**Course Structure:** The course will be a mixture of lectures and student presentations. The student presenter will be responsible for lecturing on a section or sections of the book or some technical papers (20 - 30 minutes including discussion). Starting from week 2, we will arrange 1-2 student presenters for each class session. Two presenters will work together on a single topic. The schedule will be finalized by week 1.

**Exam Dates:**
- **Midterm:** Thursday, Feb 9, class meeting time (tentative schedule).
- **Final:** As scheduled by the university: Tuesday, Mar. 13, 1:40pm – 3:40pm.

**Evaluation:** Grading will be based on the following components:

- **Midterm:** 25%
- **Final:** 30%
- **Homework:** 30%
- **Presentation:** 15%

*Note that the instructor reserves the right to curve the grades upwards if it’s appropriate.*
Class Policies and Support:

- **Class participation**: Class participation includes speaking in class during the discussion, asking course-related questions, answering questions, etc. Decisions on borderline grades will be based upon exceptional participation. In the event of an absence, it is the student’s responsibility to learn the course material and announcements covered in class. Lectures will not be repeated during office hours. If you really have to miss a class, please inform the instructor ahead of time by email.

- **Collaboration policy**: Discussing and exchanging ideas is encouraged. You may help each other with your strategy for how to solve a problem. However, copying from outside sources (e.g., other students, Internet, etc.) on any material to be graded is not permitted and will be considered cheating. When take-home exams are arranged, any collaboration will be considered cheating. Cheating may result in failure of the assignment/exam and/or failure of the class. The University’s policy on Academic Integrity, as stated in the catalog, will be enforced.

- **Exams**: The final exam will be held during the final exam week. The rescheduling of exams must be arranged at least one week in advance. The new schedule of the exam must be earlier than the original scheduled day. Exams missed without prior permission will be given a grade of zero.

- **Homework assignments**: Assignments will be posted online. It’s usually due at the beginning of the class. A hardcopy is required. Otherwise, there will be a 10-point penalty. Late submission will also incur a 10-point penalty per day, including weekends.

- **Grading correction**: Bring any homework or exam grading correction requests to the instructor within 1 week of receiving the grade, or before the end of the quarter, whichever comes first. After that, your grade will not be adjusted. If you find a mistake in grading, please let the instructor know. Your grade will not be lowered.

- **Announcement responsibility**: Important announcements, schedule revisions, etc., will be posted to the class email list and on the course website. You are responsible for information distributed to this email list and the course website. You are also responsible for short announcement during class session.

- **Cell phones**: You may have cell phones in class, but they must be on mute and not answered until the end of class.

- **Student access**: Cal Poly Pomona is committed to student success. Students with disabilities are encouraged to contact the instructor privately or the Disability Resource Center (909-869-3333, Building 9-103) to coordinate course accommodations.

Tentative Schedule:

- **Chapter 1**: Fundamentals of Computer Design
- **Appendix B**: Instruction Set Design
- **Appendix A**: Pipelining
- **Chapter 2&3**: Instruction Level Parallelism
- **Chapter 4**: Multiprocessors and Thread-Level Parallelism
- **Chapter 5**: Memory Hierarchy Design
- **Chapter 6**: Storage Systems

*(Please refer to the class website for lectures notes and a more detailed schedule.)*