

CSE 5350: Computer Architecture II
CSE 4323: Quantitative Computer Architecture
Fall 2014

Instructor: Hafiz Fahad Sheikh

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Office Hours: **3:30 - 5:30 P.M.** on **Monday**, **7:00-8:00 P.M.** on **Wednesday** or by appointment

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Section Information: CSE 5350 - 001, CSE 4323 – 001

Time and Place of Class Meetings: NH 108, Monday and Wednesday 5:30-6:50 P.M.

Description of Course Content: A study of advanced uniprocessor and basic multiprocessor systems. Topics may include memory management systems, pipelined processors, array and vector processors, and introduction to architecture of multiprocessor systems.

Prerequisite: CSE 3322 (CSE2312 + CSE3320), introductory computer architecture course, or consent of instructor.

Student Learning Outcomes: Students will be able to explain, describe and identify key concepts, fundamental approaches, and major structures in modern computer systems. Students will be able to evaluate and synthesize applied computer architecture system theory.

Required Textbooks and Other Course Materials:

Computer Architecture: A Quantitative Approach, Fifth Edition by John Hennessy and David Patterson, Morgan Kaufmann, 2012. (as well as selected publications and web sites)

Grading Policy: Course grades will be based on the following:

Assignments: 20%

Exams and Quizzes: 80%

Descriptions of major assignments and examinations:

- There will be 3 in-class exams over material presented and reading assignments. Exam Dates are on or around **September 29, October 27, and November 24.**
- Quizzes and Assignments are not major works. The dates will be posted in advance on the web-site.
- There will be 3 to 5 in-class quizzes.
- There will be 4-5 assignments.
- There will be no final exam.

Other Requirements: You may be asked questions about assignments outside of class times.

Makeups:

There will be no make-up exams. Make-ups for (non-exam) graded activities may be arranged if your absence is caused by illness, or personal emergency. A written explanation (including supporting documentation) must be submitted to your instructor; if the explanation is acceptable, an alternative to the graded activity will be arranged. Make-up arrangements must be arranged prior to the scheduled due date.

A final course grade of "A" will be assigned to a course average between 90 and 100, a "B" will be assigned between 80 and 90, a "C" will be assigned between 70 and 80, a "D" will be assigned between 60 and 70, and a "F" will be assigned for an average below 60.

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels.

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 8 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

Course Schedule

The tentative course schedule is as below:

Week**	Contents to be covered**
1	Syllabus + Chapter 1
2	Appendix A
3	Appendix C
4	Appendix C
5	Chapter 3 + Exam 1*
6	Chapter 3
7	Chapter 4
8	Chapter B
9	Chapter B + Exam 2*
10	Chapter 2
11	Chapter 2
12	Chapter 6
13	Chapter 6
14	Chapter 5 + Exam 3*
15	Chapter 5 / Selected Topics
16	Finals Week

* The exact exam dates will be announced in class and on course website.

** As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering.

Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/ao/fao/>).

Attendance Policy: Attendance is strongly encouraged but will not be a part of your grade. You must attend the exams and quizzes.

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX: The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

Academic Integrity: All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. According to the UT System Regents' Rule 50101, §2.2, "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located immediately to the right while exiting the class room. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at: <http://www.uta.edu/oit/cs/email/mavmail.php>.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Lab Safety Policy: Students registered for this course must complete the University's required "Lab Safety Training" prior to entering the lab and undertaking any activities. Students will be notified via MavMail when their online training is available. Once notified, students should complete the required module(s) as soon as possible, but no later than their first lab meeting. Until all required Lab Safety Training is completed, a student will not be given access to lab facilities, will not be able to participate in any lab activities, and will earn a grade of zero for any uncompleted work.

Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e., through next August) for all courses that include a lab. If a student enrolls in a lab course in a subsequent academic year, he/she must complete the required training again.

To access your training, you must use your UT Arlington NetID and password. It is recommended that you complete the training using either Internet Explorer or Firefox. Technical questions about the training website should be directed to the University Compliance Services training helpline, 817-272-5100, or to compliance@uta.edu. General questions about scope and content of the Lab Safety Training should be directed to the Office of Environmental Health and Safety, 817-272-2185, or to ehsafety@uta.edu.

Note: The instructor reserves the right to modify course policies, the course calendar, and assignment or project point values and due dates.