

**COURSE OBJECTIVES**

You will learn the basic concepts, methods, and technologies needed to analyze, specify, design, build, and test combinational and synchronous sequential logic circuits with standard integrated circuits and programmable logic devices.

**STUDENT LEARNING OUTCOMES** – By the end of the course, you will have demonstrated an ability to do the following.

1. Apply knowledge of basic discrete mathematics and computer engineering principles.
2. Design small digital systems that meet a specified need within realistic constraints.
3. Use modern industry standard design tools.

**INSTRUCTOR**

Bill Carroll, Professor, Computer Science and Engineering  
Office: ERB 521                      Office Hours: MT 4:00 to 5:00 PM, W 11:00 AM to 12:00 PM, or by appt.  
Phone: 817-272-3787                      Email: [carroll@uta.edu](mailto:carroll@uta.edu)  
Course web-site: *Blackboard*, <https://elearn.uta.edu>

**LABORATORY INSTRUCTOR**

Shawn Gieser, Graduate Teaching Assistant  
Office: ERB 127                      Office Hours: TTh 9:30 to 11:00 AM  
Phone: None                      Email: [shawn.gieser@mavs.uta.edu](mailto:shawn.gieser@mavs.uta.edu)

**TIME AND PLACE**

Section 001 (lecture) – TuTh 2:00 to 3:20 PM, ERB 130  
Section 002 (lab) – Fr 2:00 to 4:50 PM, ERB 127  
Section 003 (lab) – Th 3:30 to 6:20 PM, ERB 127

**PREREQUISITES** – CSE 1320 and CSE 2315. Co-requisite – EE 2440

**TEXTBOOK**

Nelson, Nagle, Carroll, Irwin, *Digital Logic Circuit Analysis & Design*, Prentice Hall, 1995.

**HANDOUTS** – will be placed on *Blackboard*, <https://elearn.uta.edu>

**GRADING**

A: 100-90, B: 89-80, C: 79-70, D: 69-60, F: 59-0 with points computed as follows.

$0.20 * \text{Exam1} + 0.20 * \text{Exam2} + 0.20 * \text{FinalExam} + 0.15 * \text{LabAverage} + 0.15 * \text{DesignProject} + 0.10 * (\text{HomeWorkAverage} \& \text{ClassParticipation})$ . Students not completing one or more of these requirements may receive an incomplete grade (I) in the course.

## EXAMINATIONS

There will be two examinations during the semester plus a comprehensive final exam. See the lecture schedule for the dates. Examinations will be closed book and closed notes.

## HOMEWORK

Homework will be given on a regular basis, will be graded, and will count toward your course grade both directly and indirectly. Late homework will generally not be accepted.

## ACTIVE LEARNING

Active learning exercises will be performed in class on a regular basis to help you better understand the concepts being covered in the course. These exercises will typically be done in small groups. All students are expected to participate. Some will be graded and count as homework and class participation.

## LABORATORY

Laboratory exercises and experiments are designed to reinforce materials presented in class and to give you experience in designing, building, and testing digital logic circuits. Please see the laboratory schedule for more details. Lab sessions meet in ERB 127.

## TERM PROJECT (ABET project)

There will be an individual term design project toward the end of the course. The project will include design, implementation, testing and documentation of a small digital system to meet user specifications within realistic constraints. More details on the project will be provided later in the semester. This project must be completed and the project report submitted in order to receive a final grade (A,B,C,D,F) in the course. Those not submitting a final project report will get a grade of Incomplete or F depending on their grade on other course work.

## POLICIES

1. **Academic honesty** – The College of Engineering takes academic honesty and ethical behavior very seriously. Engineers are entrusted with the safety, health, and well-being of the public. Students found guilty of academic dishonesty will be punished to the full extent permitted by the rules and regulations of UT Arlington.

Students are expected to pursue their academic careers with honesty and integrity. Academic dishonesty includes, but is not limited to, cheating on a test or other course work, plagiarism (offering the work of another as one's own) and unauthorized collaboration with another person. Students found responsible for dishonesty in their academic pursuits are subject to penalties that may range from disciplinary probation to suspension or expulsion from the University.

In accordance with the Rules and Regulations of the Board of Regents of The University of Texas System (Rule 50101), institutional procedures regarding allegations of academic dishonesty are outlined in Part Two, Chapter 2, of the UT Arlington Handbook of Operating Procedures. This information may be obtained by accessing the Student Judicial Affairs Web site at [www.uta.edu/studentaffairs/conduct/](http://www.uta.edu/studentaffairs/conduct/)

2. **Attendance** – You are expected to attend class and attendance will be checked on a regular basis. Those with more than two unexcused absences from the lecture and/or laboratory will have their final average reduced by five points for each additional absence before their final letter grade is assigned.

3. **Accommodations** – Should you require accommodation based on disability, please see me in the privacy of my office as soon as possible but no later than January 17, 2014 to make appropriate arrangements. You must bring supporting documentation to the meeting.
4. **Electronic communication** – The University of Texas at Arlington has adopted the University “MavMail” address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. Students are responsible for checking their MavMail regularly. Information about activating and using MavMail is available at <http://www.uta.edu/oit/email/>.
5. **Grade appeals** – Should you have a concern about the grade you received on an assignment or exam, you may submit a re-grading request to the instructor or TA in writing within two class days from the day the assignment or exam was returned. Appeal of the final course grade should follow the established UT Arlington policy which begins with a written appeal to the course instructor of record. You can learn more about grade appeals and other academic regulations at [http://www.uta.edu/catalog/content/general/academic\\_regulations.aspx#17](http://www.uta.edu/catalog/content/general/academic_regulations.aspx#17).
6. **Make-up work** – Late homework will not be accepted and cannot be made up. Make up of missed examinations and laboratory assignments will be handled case-by-case and, generally, be approved only if sufficient justification can be made and documented. Requests for make-up must be made to the instructor within one week of the missed work’s due date.
7. **Preparation for class** – You are expected to read the appropriate sections of the textbook and supplemental material prior to each class and/or lab session.
8. **Student feedback** – You will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent to you through MavMail approximately ten days before the end of the term. UT Arlington’s efforts to solicit, gather, tabulate, and publish student feedback data is required by state law; your participation in the SFS program is voluntary.
9. **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 studies. These resources include tutoring, personal counseling, and federally funded programs. For individualized referrals to resources, students may contact the Maverick Resource Hotline at 817-272-6107 or visit [www.uta.edu/resources](http://www.uta.edu/resources) for more information. Engineering Student Services, 242 Nedderman Hall, is another resource for guidance on academic and career questions.
10. **Cell phones and wireless devices** – Please refrain from using during class times. All electronic devices must be powered off during examinations. Use of tablets or laptops for viewing class materials is permitted.