

Course Syllabus

Course Information

Course Number/Section	EE/CE 2310.501
Course Title	Introduction to Digital Systems
Term	Fall 2022
Lectures – Days, Time & Place	TR - 5:30pm – 6:45pm at ECSW 1.365
Labs – Days, Time & Place	Friday - 2:30pm – 3:45pm at ECSW 2.325 Friday – 4:00pm – 5:15pm at ECSN 2.120

Professor Contact Information

Instructor	Shaheen Ahmed
Email	sxa176730@utdallas.edu
Office Location	ECSN 4.312
Office Hours	Wednesday 2:30pm – 4:00pm on MS Teams or via appointment
Teaching Assistant	TBD

Pre-requisite: A working knowledge of basic algebra and knowledge of programming fundamentals.

Textbook: zyBooks CE 2310/EE 2310: Introduction to Digital Systems. To acquire access to this online text:

1. Sign in or create an account at learn.zybooks.com
2. Enter zyBook code: UTDALLASCE2310EE2310Fall2022
3. Subscribe.

Additional Resources:

1. Fundamentals of Logic Design, 7th edition by Charles H. Roth, Jr, & Larry L. Kinney
2. Computer Organization and Design, 2nd edition by Davis A. Patterson & John L. Hennessy

Objective of the course:

1. Be fluent in binary numbers and base conversion.
2. Be fluent in Boolean algebra and computational techniques.
3. Be able to read and write assembly language code.
4. Have a basic understanding of computer organization and design.

Course Evaluation:

Grading Policy	
HW	(25%)
Labs	(25%)
Exam # 1	(15%)
Exam # 2	(15%)
Final Exam	(20%)

Grade Range		
A+: 97 - 100	A: 93 - 96	A-: 90 - 92
B+: 87 - 89	B: 83 - 86	B-: 80 - 82
C+: 77 - 79	C: 73 - 76	C-: 70 - 72
D: 69 - 60	F: < 60	

Course Policies:

1. Weekly homework assignments will be on eLearning. Prelabs will be turned in during labs. Late work will be reduced in credit by 10% per day late.
2. You can dispute any graded work within one week of the return of that work.
3. Copying on examinations is cheating and is prohibited. Any instances of cheating or plagiarism will be subject to disciplinary penalties according to the UT Dallas policy on scholastic dishonesty. The penalties include the possibility of failure in the course and/or dismissal from the University. Read the policy at <http://www.utdallas.edu/deanofstudents/dishonesty/>

4. The homework assignments, labs assignments and complementary materials will be posted on eLearning.

Tentative Class Plan:

<i>Lecture</i>		<i>Topics Covered</i>	<i>Due this week</i>	<i>Laboratory</i>
#	<i>Date</i>		<i>Check dates</i>	<i>Tuesday, Wednesday</i>
1	Aug. 23 & 25	Intro to CE/EE 2310; Intro. to Combinational logic	Nothing due	Workshop (optional)
2	Aug. 30 & Sep. 1	Boolean algebra, equations, truth tables, timing	HW 1	Prelab 1, Lab 1
3	Sep. 6 & 8	Base conversion, binary addition & subtraction	HW 2	Prelab 2, Lab 2
4	Sep. 13 & 15	K- Maps, deMorgan and more Gates	HW 3	Lab 3
5	Sep. 20 & 22	Test Review; Muxes, Decoder, Encoder	HW 4	Exam 1
6	Sep. 27 & 29	Adders & Subtractors		Prelab 4, Lab 4
7	Oct. 4 & 6	Comparators, Register, Memory	HW 5	Prelab 5a, Lab 5a
8	Oct. 11 & 13	Information as bits	HW 6	Prelab 5b, Lab 5b
9	Oct. 18 & 20	Floating & Fixed-point arithmetic		Make up lab
9	Oct. 25 & 27	Test Review, Shifters & Binary multiplication	HW 7	Exam 2
10	Nov. 1 & 3	MIPS – assembly language programming	HW 8	Lab 6
11	Nov. 8 & 10	MIPS – assembly language programming	HW 9	Lab 7
12	Nov. 15 & 17	Processor design	HW 10	Lab 8
13	Nov. 22 & 24	Fall break / Thanksgiving; no class meeting	HW 11	No lab
14	Nov. 29 & Dec.1	Processor design	HW 12	Lab 9
15	Dec. 6 & 8	Test review		
		Final Exam; date TBD		

*HW – homework; PL – Prelab; These descriptions and timelines are subject to change at my discretion (i.e. as necessary).

Class Materials

The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Classroom Conduct Requirements Related to Public Health Measures

UT Dallas will follow the public health and safety guidelines put forth by the Centers for Disease Control and Prevention (CDC), the Texas Department of State Health Services (DSHS), and local public health agencies that are in effect at

that time during the Fall 2021 semester to the extent allowed by state governance. Texas Governor Greg Abbott's Executive Order [GA-38](#) prohibits us from mandating vaccines and face coverings for UT Dallas employees, students, and members of the public on campus. However, we strongly encourage all Comets to get vaccinated and wear face coverings as recommended by the CDC. Check the [Comets United: Latest Updates webpage](#) for the latest guidance on the University's public health measures. Comets are expected to carry out [Student Safety](#) protocols in adherence to the Comet Commitment. Unvaccinated Comets will be expected to complete the [Required Daily Health Screening](#). Those students who do not comply will be referred to the Office of Community Standards and Conduct for disciplinary action under the [Student Code of Conduct – UTSP5003](#).

Class Attendance

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes. Faculty have the discretion to set an attendance policy for their in-person meetings, but the absences due to COVID-19 cannot be counted against a quarantined student.

Class Participation

Regular class participation is expected. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Class Recordings

The instructor plans to record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students. Please see <http://go.utdallas.edu/academic-support-resources>.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please review the catalog sections regarding the [credit/no credit](#) or [pass/fail](#) grading option and withdrawal from class. Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

These descriptions and timelines are subject to change at the discretion of the instructor.