Course: 322 - Digital Electronics Technology
Instructor: Dr. Cherif Aissi, Rougeau Hall #230
Tel: 482-6971

Overview: This course is designed to teach the students the fundamentals of digital systems. Both combinational and sequential circuit analysis and design are covered. Several logic gates and memory circuits are introduced. Troubleshooting procedures and problem solving are covered. Hands-on equipment and practical application design are emphasized. Projects on how to design combinational and sequential applications are assigned.


Grading

<table>
<thead>
<tr>
<th>Components</th>
<th>Points</th>
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<tbody>
<tr>
<td>Homework/ Lab reports</td>
<td>20%</td>
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<tr>
<td>Quizzes</td>
<td>20%</td>
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<tr>
<td>Exam 1</td>
<td>20%</td>
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<tr>
<td>Exam 2</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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The grading system is in accordance with university policy that is

100-90% A
89-80%  B
79-70%  C
69-60%  D
59-0%   F
Course Outline:

1. Lecture: Introductory Digital Concepts: read chapter 1, do homework 1
   Lab: Exp 2.

2. Lecture: Number systems, Operations and Codes, read chapter 2, do homework 2
   Lab: Exp 3

3. Lecture: Logic gates, part 1, read chapter 3, do homework 3.
   Lab: Exp 4.

   Lab: Exp 5.

5. Lecture: Boolean Algebra, read chapter 4, do homework 5.
   Lab: Exp 6

   Lab: Exp 7

   Lab: Exp 8 or Exp 9. Presentation.

   Lab: Exp 8 or Exp 9. Presentation.

   Lab: Exp 10.

10. Lecture: Functions of Combinational Logic part 2, read chapter 6, do homework 10.
    Lab: Exp 11.

11. Lecture: Flip-Flops and Related Devices, read chapter 8, do homework 11
    Lab: Exp 14

12. Lecture: Flip-Flops and Related Devices, read chapter 8, do homework 12
    Lab: Exp 16

13. Lecture: Counters, read chapter 9, do homework 13
    Lab: Exp 18

14. Lecture: Counters, read chapter 9, do homework 14
    Lab: 19

15. Lecture: Shift Registers, read chapter 10, do homework 15
    Lab: Exp 22
Class attendance and regulations

1. Regular attendance and punctuality is mandatory. (See Univ. Class attendance policy).

2. If you miss more than 3 classes (lectures or labs) with no written justification, you will automatically fail the class.

3. If you miss a class, have a friend pick up your assignments and any documents handed out.

4. When absent, you are responsible for the work you missed.

5. You are responsible to be prepared for the next class after missing one or more classes.

6. Have at least two phone numbers of your classmates to keep up with assignments.

7. Assignments are not accepted after the deadline date.

8. No make-up test will be given. If you miss a test for a justified reason, then the next test will count in proportion with the one you missed.

9. Review the previous lecture before attending the next lecture and be ready for any quiz.

10. No food, no drinks, no games in the classroom or the Lab.

Syllabus statement

Emergency evacuation procedures

A map of this floor is posted near the elevator marking the evacuation route and the Designated Rescue Area. This is an area where emergency service personnel will go first to look for individuals who need assistance in exiting the building. Students who may need assistance should identify themselves to the teaching faculty.