

ELE201: Digital Circuit Design

Fall 2007 Syllabus

Instructor: Professor Jien-Chung Lo, Kelley Annex 221, X-42996, jcl@ele.uri.edu

Class Webpage: <http://www.ele.uri.edu/Courses/ele201>

Textbook: Charles H. Roth, Jr., Fundamentals of Logic Design, 5th ed.,
Thomson Learning Pub., ISBN 0-534-37804-8

Lecture: MWF 9AM -- 9:50AM, Kirk Auditorium

Office Hours: MWR 12:30-2PM

Schedule

wk	dates	Lecture Topics	Quizz	Exams
1	9/5, 7	Introduction and Overview		
2	9/10, 12, 14	Chapter 2: Boolean Algebra	9/12	
3	9/17, 19, 21	Chapter 3: Boolean Algebra II	9/19	
4	9/24, 26, 28	Chapter 5: Karnaugh Maps		<i>Test #1: 9/28</i>
5	10/1, 3, 5	Chapter 5: Karnaugh Maps	10/3	
6	10/10, 12	Chapter 11: Latches and Flip-Flops	10/12	
7	10/15, 17, 19	Chapter 11: Latches and Flip-Flops		Mid-Term: 10/19
8	10/22, 24, 26	Chapter 12: Registers and Counters	10/24	
9	10/29, 31, 11/2	Chapter 12: Registers and Counters	10/31	
10	11/5, 7, 9	Chapter 13: Clocked Sequential Circuits		<i>Test #2: 11/9</i>
11	11/14, 16	Chapters 14 & 16: selected sections		
12	11/19, 21	Chapter 4: Minterms and Maxterms	11/19	
13	11/26, 28, 30	Chapters 7 and 8: selected sections	11/28	
14	12/3, 5, 7	Chapters 18 & 19: selected sections	11/5	
15	12/10	Semester review	12/10	
	12/17	Final Examination at Kirk Auditorium		8-11AM

- The lecture topics are tentative and will be adjusted according to the “reality” in the class.
- Homework will be assigned weekly and collected but no grade will be assigned. Instead your performance on the quizzes will reflect the effort of practicing assignments at home. Only the 8 best scores out of the total of 10 quizzes will be counted (see below)

Grading Policy:

Quizz (5 min. at the end of the class): 8 x 4% -----	32%
Tests (15 min. at the end of the class) 2 x 8% -----	16%
Mid-Term Exam (50 min.) -----	20%
Final Exam (3 hours) -----	32%

Class Etiquette

- Attending class is an obligation. Missing classes will result in not learning the materials and subsequently bad grades.
- Take notes in the class is a crucial part of the class. Passively listen to the lecture is the wrong way. By taking notes you process the information so it can be absorbed.
- Do not afraid to ask questions (by raising your hand) in the class. There is no stupid question!
- This class will require lots of practice and, so make sure you do all the assigned homework.
- There is no make-up, so please remember the tests schedule.

Course Objectives:

- To understand the basic ideas and methods used in designing digital systems for later use in advanced courses on digital circuit design, computer hardware, and computer architecture. Understand and use a hierarchical approach to the design of complicated systems.
- To question the use of algorithmic solutions to problems, to grasp when they can be useful, and when they are inadequate.
- To design digital circuits up to the level of using medium scale integrated circuit chips.

For students with special needs:

Any student with a documented disability is welcome to contact me early in the semester so that we may work out reasonable accommodations to support your success in this course. The grading policy will remain the same as stated above. One should also contact Disability Services for Students, Office of Student Life, 330 Memorial Union, 874-2098.