Course: ET 403B
Title: Electronics Application & Design

Instructor: Dr. Garth V. Crosby
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Office Hours: Mon, Wed: 10a.m.-12noon & 1-3p.m.
Instructor’s Website: http://www.engr.siu.edu/staff1/crosby/index.htm

Course Description

A study of parameters, design and application of operational amplifier based circuits, linear integrated circuits, quasi-linear circuits, pulse waveform and timing circuits, and digital integrated circuits.

Course Objectives:
To develop the ability to analyze and design circuits employing integrated circuits. Also, to develop trouble shooting and problem solving skills needed to prototype designs.

List of Topics
1. FET Amplifiers (ch. 6)
2. Power Amplifiers (ch. 8)
3. Practical Operational Amplifiers (ch. 9)
4. Active Filters (ch. 12)
5. Quasi-linear Circuits (ch. 13)
6. Pulsed Waveforms and Timing Circuits (ch. 14)
7. Digital Logic Families (ch. 15)
8. Digital Integrated Circuits (ch. 16)
9. Special Selected Topic

Typically, we will cover one of the above mentioned topics in one to two weeks. Some topics will require additional time.

Assessment (subject to change at instructor’s discretion):

1. Homework – 10%
2. Lab- 20%
3. Test 1 - 10%
4. Test 2 - 10%
5. Project -20%
6. Comprehensive- 30%

Final Exam- Date & Time
Monday, May 5, 2014; 8-10p.m.
Grading

A: 90-100
B: 80-89.9
C: 70-79.9
D: 60-69.9
F: below 60

Class Policies

i) Class attendance is required and class role will be randomly taken. Attendance data will be used to determine border-line grade adjustments.

ii) In exceptional cases a make up test will be given to a student that complies with all of the following:

1. Call (or email) instructor **BEFORE** test time to notify of problem.
2. Bring written proof to instructor.

The following situations apply for a make-up:

1. The make-up test will be of more complexity and more exhaustive than the original test missed and will include all materials up to the date of the make-up test.
2. Only one test can be missed; therefore, only one test make-up will be given.
3. The time and place of this make-up test will be announced in advance, and you must sign up with the instructor a minimum of one week in advance.

Recommended Course Text


Emergency Procedures:

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in building on campus, available on the BERT’s website at [www.bert.siu.edu](http://www.bert.siu.edu), Department of Public Safety’s website [www.dps.siu.edu](http://www.dps.siu.edu) (disaster drop down) and in the Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. **It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.** The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.