Southern Illinois University  
Course: ET 403A  
Title: Electronics Technology  
Semester: Fall 2013

Instructor: Dr. Garth V. Crosby  
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Office Hours: Mon, Wed, Fri: 10-12p.m. & Mon, Wed 4-5 p.m.  
Course website: TBA

Prerequisite

ET 304B

Required Course Text


Reference

Manufacturers’ manuals.

Course Description

This course is a study of the fundamental concepts of solid state electronics, and the application of transistor and operational amplifier based circuits.

Course Objectives:

To develop the ability to analyze and design circuits employing solid state devices. Also, to develop trouble shooting and problem solving skills needed to prototype designs.

Learning Outcomes

At the end of this course students should:
1. Be knowledgeable of the fundamental concepts of solid state electronics
2. Be able to prototype design of solid state devices
3. Be able to model and analyze solid state circuits
4. Be able to apply trouble shooting and problem solving skills in experimentation

Class Schedule

1. Basic Concepts (Chapter1)
2. Ideal Operational Amplifiers (Chapter 2)
3. Semiconductor Diode Circuit Analysis (Chapter 3)
4. Bipolar Junction Transistor Circuits (Chapter 4)
5. Bipolar Junction Transistor Amplifiers (Chapter 5)
6. Field-Effect Transistor Amplifiers (Chapter 6)

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

1. Homework – 10%
2. Lab- 20%
3. Project- 10%
4. Test 1 - 15%
5. Test 2 - 15%
6. Test 3 - 15%
7. Test 4- 20%

*Best 3 of 4 tests will be used.

**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 make-up test 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.
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, Department of Public Safety’s website 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.