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**Course Information****Instructor:**

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**Description:**

Electrical and computer engineering (ECE) deals with the application of electrical and electronic technology to the daily needs of people. Almost every aspect of their lives and occupations are controlled by ECE. To understand the details of ECE it is necessary to study circuit analysis. The reason for this is that it is the one thing that ties all branches of ECE together; as such, it lays the foundation for analysis, design, and operation of electrical devices and systems.

This class helps provide a foundation for you to build on. You will continue, in subsequent ECE courses, to update the knowledge you gain here. Since this course is the prerequisite for just about everything you will be doing in ECE, it is vital that you gain a confident grasp of circuit and systems fundamentals.

The Calendar gives details of what we'll be covering. You should follow it closely.

**Text :** J.W. Nilsson & S.A. Riedel, *Electric Circuits*, 8<sup>th</sup> edition, Prentice Hall, 2008.

**Office Hours:** M – R, 7<sup>th</sup> hour, 1:35 – 2:25 pm or by appointment

**What is expected of You:**

First and foremost, professional work is the norm in this course. All of your written work and your conduct in class are to be at the level of one who is studying a profession—the profession of engineering. This means a number of things:

1. Your work is neatly done in a professional manner, using formats specified.
2. Your work is honestly done. You are encouraged to discuss course material with classmates to help each other understand and assimilate the concepts. Nevertheless, I distinguish between helping someone understand concepts and providing them with specific answers. I expect you'll work individually on homework without reference to others' work.
3. Your work is done on time.

**Attendance:**

Regardless of whether formal attendance is taken, attendance at each class is expected. As a rule of thumb you should consider yourself seriously behind if you miss more than **four classes** in a four credit-hour course. According to our Academic Rules and Procedures, "A student whose total absences in a course, excused or unexcused, exceed two per credit is liable to fail

the course.” ***Eight absences in this course are grounds for failure.*** Missing an attendance check due to lateness may be counted as an absence.

If you miss a lab with an excused absence you need to make it up within 1 week without penalty. If you miss a lab without an excused absence, you need to make it up within 1 week and you will receive a grade of zero. ***If you come to lab more than 15 minutes late you need to complete the lab on your own.***

### Grading:

Grades will be assigned at the end of the quarter based on the grade weights and grading scale shown below:

Midterm Test I	20%	90 – 100	A
Midterm Test II	20%	85 – 89	B+
Final Exam	30%	80 - 84	B
Homework and Quizzes	10%	75 - 79	C+
Labs and Memos	15%	70 - 74	C
Lab Practical Test	5%	65 - 79	D+
		60 - 64	D
		Below 60	F

### Independent of point totals:

- Satisfactory completion of each of the ten lab projects is required in order to receive a passing grade in the course,
- You must earn a passing **overall weighted midterm and final exam average** in order to receive a passing grade in the course, and

### Homework:

The homework is intended to help you to understand the concepts presented in the course, and to provide you with practice in problem solving.

- **Problem sets are due each Thursday in class before the bell rings at the beginning of class.** Assignments and solutions will be distributed using ANGEL.
- Homework turned in after the bell rings is late and will incur a **20%** penalty.
- Homework turned in after 8 am on the day following the due date will **not** be accepted.
- Arrange to turn in your homework early if you will be away for job interviews, athletic events, etc.
- The required format is described in the *Sophomore Engineering Curriculum Guidelines and Standards for Writing Assignments*. It is your responsibility to make your methods and results clear to the grader.

Homework will be graded using a restricted scale of 0, 1, 2, 3, or 4:

- 4 Problem worked completely correctly.
- 3 Problem worked with minor errors.
- 2 Problem worked with substantial errors.
- 1 Problem attempted, but with no understanding.
- 0 Problem not attempted or unacceptable.

### **Preparation for the laboratory sessions:**

#### **Pre-lab exercises are due each Tuesday in class before the bell rings at the beginning of lab.**

Each student should do the pre-lab in their notebook and make a photocopy to turn-in. The solutions to the pre-lab may be presented at the start of the lab period. Any team that has not completed the pre-lab, must do it at the beginning of lab for zero credit. This team must still finish the laboratory project within the allotted time.

### **Laboratory notebooks:**

Laboratory notebooks will be collected at the conclusion of each laboratory period. The laboratory notebook will be graded and both members of the team share the notebook grade. Each team member must alternate submission of the lab notebook as well as circuit building on a weekly basis. A memorandum will be submitted for one laboratory projects and this will be an individual grade.

### **Exams:**

On both tests you will be allowed to use one 8½ x 11 page of notes (both sides) that you have made but may not use anyone else's notes. You should prepare for tests as though they were closed-book so that you can finish on-time; reference material should only be a back-up. In the final exam, you are permitted to use two 8½ x 11 pages of notes (both sides).

Missed exams will not be made up. ***The final exam grade will be used to replace a missing test grade in the case of excused absences.*** Excused absence from an examination normally requires advance approval or formal documentation of an emergency. An examination that is missed for an unexcused reason will be given a grade of zero. Students are not excused from scheduled exams for intramural athletics or fraternity events.

### **Academic accommodation:**

Those students with documented special needs may request extra time on timed tests. Students need to contact me at least 2 business day prior to each exam to make the necessary arrangements.