ECE204 AC CIRCUITS
Course Outline

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.

Instructor: Cliff Grigg
Offices: D 206
Phone: 8333
Required Texts: ELECTRIC CIRCUITS (9th Ed.) – Nilsson & Riedel
Dr. Grigg's Course Notes for ECE204 (available in the bookstore)
Grading: Grades shall be assigned according to the following schedule:

90	100	A
85	90	B+
80	85	B
75	80	C+
70	75	C
65	70	D+
60 - 65		D
Below 60		F

Final Exam	35%
Tests (3)	35%
Lab Work	20%
HW & Quizzes	10%

NOTE: All Labs must be satisfactorily completed by each student to pass the course. Anyone missing a lab will be required to complete it on their own within one week's time. For unexcused absences, the completed lab will be penalized by 25% per day. All labs must be completed even if the grade is a zero.

The link for the course webpage which will have homework hints, test reviews, and supplemental material is: http://www.rose-hulman.edu/class/ee/HTML/ECE204/

Homework is assigned daily and collected on the day after it is assigned. ***Completed homework assignments are due at the START of the class period indicated in the schedule.*** Drop your assignment on the instructor's bench as you enter the class. Late assignments will be accepted with a 25% penalty for the rest of that school day. Assignments turned in after the due date will not be accepted unless written exemption has been obtained in advance. Turn in your homework early if you will be away for job interviews, athletic events, etc. You are expected to be able to solve linear equations and to perform basic complex algebra on your calculator. Laptops should only be used to check your results outside of class, as they will not be available for the tests. Students are encouraged to do homework together and to study together, bearing in mind that outright copying of homework solutions is counter-productive to learning the material. Homework will be graded using a restricted scale of 0, 1, 2, 3, 4, as follows:

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

All students are expected to attend all lectures unless they have a valid reason for absence. Illness is not an acceptable reason for absence unless accompanied by medical certification. ***Tests missed due to unauthorized absence may not be made-up.*** Tests missed due to authorized absence will receive the final exam score. A student whose total absences (excused or unexcused) exceeds eight class meetings shall fail the course.

Each test and the final exam must be the student's own work. Failure to comply with this requirement results in an automatic course failure for all parties concerned, and recommendation for further disciplinary action. **NO SECOND CHANCES!!!** Although students are encouraged to study together and help each other outside the classroom, this does not extend to tests and the final exam.

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. However, no time will be allocated for referring to notes etc. In other words, 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).

Quizzes will usually be given at the beginning of labs, so if you're more than a few minutes late your quiz score is zero. If you turn-up early you can start early.

Each laboratory group is required to keep two laboratory notebooks (#26-251, available at the Bookstore). One book shall contain the odd-numbered labs and the other shall contain the even-numbered labs. The pre-lab must be present in the lab book and a photocopy of the pre-lab is due at the start of the lecture preceding the lab (except Lab 1). Only one pre-lab per group is needed. Drop your pre-lab on the instructor's bench as you enter the class. Note that pre-labs are required before you can start the lab and since all labs are required, missing a pre-lab means you fail the course.

The required format for homework and lab books is described in the aforementioned course webpage, click on HW0 and LabB tabs.

READING ASSIGNMENTS

Reading is a very important part of learning the material, simply working examples produces ***superficial*** learning, while reading produces ***in-depth*** learning. The webpage shows a target schedule for the course. Read the assigned material ***before*** it is covered in class; don't worry if you don't understand it when you first read it, this will get you ready to ask questions in class and to learn from other people's questions. If you don't understand the material ***after*** it is covered in class ***come and see your instructor.*** The ***Drill Problems*** will provide you with helpful practice; work them on your own or in groups after you have done the reading assignment and if you have questions ***come and see your instructor.***