

EE3715: Electronics Laboratory

University of Colorado at Denver and Health Sciences Center
College of Engineering and Applied Science

Term: Fall '09

Course dates/times: Sxn I: W 7pm-9:50pm

Sxn II: S 9am-11:50am

Course location: NC2408

Office Hours: after class or by appointment

Instructor: William P. Nichols

Office location: NC2408

Phone: 720-341-9929

Email address: will.nichols@comcast.net

Course Design

Catalogue Description: Electronics Laboratory. Design and experimental verification of the operation of filter circuits, power supply circuits, transistor amplifier circuits and FET circuits.

Prerequisites: E E 2142 (Circuits II), 2531 (Logic Lab), 2552 (Sophomore Lab).

Prereq/coreq: E E 3215 (Electronics I)

Instructor Description:

A hands-on course that emphasizes putting theory into practice to solve useful problems.

Course Objectives: You will be learning how to use oscilloscopes, VOMs, function generators, Pspice, and Matlab. Debugging skills and critical thinking will also be emphasized.

Requirements

Required Texts: Laboratory manual, provided by instructor.

Recommended Texts: Microelectronic Circuits, Sedra & Smith.

Additional, Materials, Equipment: Provided by Dept. or instructor.

Assignments and Examinations: 8 laboratory exercises, no examinations.

Assignments – Reports are due at the beginning of class on the assigned day.

Assessment Design

Grades:

Although working in teams is both necessary and encouraged, each student is to hand in their own lab report. Reports are due at the BEGINNING of class on the due date.

Your lab reports shall be computer generated, and I would like you to include all 'hand work' such as computations and derivations used in your design done with paper and pen/pencil. I am interested in quality, not quantity, and will place much emphasis on clarity and proper use of standard English, scientific procedure, proper diagram labeling, and document appearance. Your laboratory report should contain enough information that someone without the lab manual could pick it up and read it, and fully understand the following: the intent of the exercise, what you did, why, and what your results were. Explain the discrepancies you may encounter between theory, simulation, and reality. Consider things like: component tolerance, substitution of values, non-ideality of real components, and so on.

Your grade in this class will be structured as follows:

LAB REPORTS: 90%
PARTICIPATION AND ATTENDANCE: 10%
EXTRA CREDIT: At my discretion.

Course Policies:

Late reports will be accepted up to and including the following class period for a letter grade deduction, and for no credit after this. Attendance is not required, but highly suggested. You are on your own to obtain information missed in class from your classmates. Cheating and plagiarism will not be tolerated, and will be reported to the Dean. I reserve the right deviate from the syllabus as I see fit.

Course Schedule

Class Schedule

We will move at a fast pace this semester. You are expected to come to class with the day's lab preliminary work already completed or at least attempted. Class time is for building and testing, as well as asking questions, not for me to watch you do the day's preliminary work. I will provide due dates as the semester progresses, to accommodate for some labs taking longer than others.

Course Communication

Office hours and contact info: See above

Students called for military duty

If you are a student in the military with the potential of being called to military service and /or training during the course of the semester, you are encouraged to contact Paul Rakowski.