

## EE/ ME 3030-001 Electric Circuits and Systems

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

Fall 2009  
MW 4:00 to 5:15 pm  
CN 205  
Office Hours: 1 hour before class

Farnaz Farhoodi  
Office location will be announced!  
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### Course Design

*Catalog Description:* This basic electrical engineering course is for non-majors. Prerequisites or Coreq. are Math 2421 (Calculus III) and Phys 2331 (General Physics II).

*Course Objectives:* Students study circuit analysis, transformers, electric motors, and simple electronic circuits on a basic level.

### Requirements

*Required Texts:* Foundation of Electrical Engineering, J.R. Cogdell, 2<sup>nd</sup> Edition, Prentice Hall, 1996 ISBN 0-13-092701-5

*Additional, Materials, Equipment:* TI 89 or better is preferred

*Assignments and Examinations:*

Assignments – Weekly Homework (will be due one week from the day assigned in the beginning of class)  
Examinations – 2 Midterms, 1 Final, Quizzes (dates will be announced)

### Assessment Design

#### Grades:

Midterm 1	25%
Midterm 2	25%
Final	25%
Homework and Quizzes	20%
Attendance	5%

Students can check their grades any time during the semester. (through email or personally)

#### Course Policies:

- Late Homeworks will not be accepted
- Late Take-Home Exams will not be accepted.

- Make-up exams will only be permitted in the case of medical emergency, notification is made by email no later than the day of the exam. In the case of medical emergency, a written doctor's excuse may be required.
- Homework will be assigned at the end of each class and will be due one week from the day assigned (beginning of class).
- Quizzed will be assigned one class period ahead of the day of the quiz.

### Course Schedule\*

#### Class Schedule

Date	Topic	Required Reading	Assignments
08/19/09	Basic circuit theory, Kirchoff's current law	Chapter 1	
08/24/09 and 08/26/09	Kirchoff's voltage law, circuit elements, voltage and current dividers	Chapter 1	
08/31/09 and 09/02/09	DC circuit analysis, Thevenin and Norton equivalent circuits	Chapter 2	
09/07/09	Labor Day (NO CLASS)		
09/09/09 and 09/14/09	Nodal analysis, Mesh analysis	Chapter 2	
09/16/09	Inductance and capacitance, RL and RC analysis	Chapter 3	
09/21/09	Review		
09/23/09	Midterm I		
09/28/09	AC circuits, Phasors, Power and Energy storage	Chapter 4	
09/30/09 and 10/05/09	Transformer principles, Three phase power	Chapter 5	
10/07/09 and 10/12/09	Power distribution and transmission	Chapter 6	
10/14/09 and 10/19/09	Electric and magnetic forces and fields	Chapter 13	
10/21/09	Electric motors and generators	Chapter 13	
10/26/09	Review		
10/28/09	Midterm 2		
11/02/09	Semiconductor devices, diodes, transistors, amplifiers	Chapter 7	
11/04/09 and 11/09/09	Amplifiers, Digital electronics	Chapter 8	
11/11/09 and 11/16/09	Frequency domain representation of signals, filters, op-amps	Chapter 9	
11/18/09	Communication Systems	Chapter 11	
11/23/09 and 11/25/09	Fall Break (NO CLASS)		
11/30/09 and	Communication Systems and	Chapter 11	

12/02/09	Review		
12/07/09 and 12/09/09	Finals Week		

### **Course Communication**

- Office hours
- E-mail works as well

### **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.

\*Subject to change.