ECE 305, Electromagnetic Theory  Spring 2011
Instructor: Dr. Dennis McCaughey
Telephone: 703-624-6830
Office hours: Monday and Wednesday 3:45 to 4:15pm
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Text: Elements of Electromagnetics, 5th Ed., by Matthew Sadiku

Electromagnetics, by Edminister (a Schaum's outline to help students with homework problems, not used in class)

Schedule..................The following chapters are from Hayt and Buck
Jan 24, Jan 26............Vector Algebra Ch 1, Coordinate Systems and Transformations Ch 2
Jan 31......................Vector Calculus Ch 3
Feb 2........................Test (Calculus and vectors)
Feb 7, 9.....................Coulomb's Law Ch 2
Feb 14, 16..................Electric Flux Density Ch 4
Feb 21, 23..................Energy and Potential Ch 4
Feb 28, Mar 2............Convection and Conduction Currents Ch 5
Mar 7......................Dielectrics and Capacitance Ch 5
Mar 9......................Test  (Through mar 7)
Mar 14-Mar 20...........No Class
Mar 21.....................Current and Conductors Ch 5 (skip Section 5.11)
Mar 23, 28.................Poisson’s Equation Ch 6
Mar 30........................Project lecture and assignment
April 4, 6...................Magnetostatic Fields Ch 7
April 11....................Magnetic Forces Ch 8
April 13, 18..............Maxwell’s Equations Ch 9
April 18....................Project due, Take Home Exam II assigned
April 20, 21..............Electromagnetic Wave Propagation Ch 10
April 25 ...................Transmission Lines Ch 11
April 27...................Guided Waves Ch 12
May 2.....................Take-Home Exam due
May 2, 4...................Guided Waves, Antennas Ch 12 Ch 13
May 6.....................Review
May 11.....................Final

Quizzes: There will be a 1-problem quiz ever Wednesday based on the previous week’s homework assignment

The final exam will cover material from the whole course through Chapter 13 of Sadiku.

Grading: Homework, Quizzes, Each Exam, Final, Attendance---All equally.
Homework for a particular chapter is due at the beginning of class on the due date listed on the homework assignments page. Solutions will be given when the homework is returned to the student. No late submissions are allowed unless a true emergency crops up.