Department of Electrical and Computer Engineering
The Johns Hopkins University

520.137 Introduction to Electrical and Computer Engineering

Fall 2012

Instructor Prof. Trac D. Tran
Office: Barton 215. Phone: 410-516-7416
Email: *trac@jhu.edu*
Web: *http://thanglong.ece.jhu.edu/*
Office Hour: Monday 2-4 or by appointment.

Teaching and Lab Assistant Yuanming Suo and Minh Dao
Office: Barton 322. Phone: 410-516-4587
Email: {*ysuo1,minh.dao*}*@jhu.edu*
Office Hour: Tuesday 10-12 or by appointment.

Course Web Page *http://thanglong.ece.jhu.edu/Course/137/*

Lectures Monday Wednesday Friday 12:00 - 1:00 PM, Shaffer 101.
Lab Sessions, TBA, Hackerman 224.

Textbooks

- R. Kuc, *The Digital Information Age: An Introduction to Electrical Engineering*, PWS Publishing Co., 1998. ISBN: 0534953158. (Required).
- D. V. Kerns and J. D. Irwin, *Essentials of Electrical and Computer Engineering*, Prentice Hall, 2004. ISBN: 0139239707. (Required).

Course Description

- An introductory course covering the principles of electrical and computer engineering including sinusoidal wave forms, electrical measurements, digital circuits, and applications of electrical and computer engineering. Laboratory exercises and a final design project are included in the course. Open to freshman Engineering majors and any Arts and Sciences majors. 3 credits. Computer Usage: Matlab for data analysis, plotting, and simulations.
- Prerequisites: high-school mathematics and physics; familiarity with Calculus will be very helpful. Corequisites: none.

Exams

- Exam I: Wednesday, 10/03/2012, Shaffer 101.
  One $8.5'' \times 11''$ cheat sheet allowed.
- Exam II: Wednesday, 11/07/2012, Shaffer 101.
  One $8.5'' \times 11''$ cheat sheet allowed.
- Final Exam: comprehensive, Thursday, 12/20/2012, Shaffer 101.
  Three $8.5'' \times 11''$ cheat sheets allowed.

Homework and Lab Assignments

- Seven-eight homework assignments.
- Six lab assignments, approximately once every two weeks, held in Hackerman 224.

Final Project

- Students are expected to work in teams of 3 on a specific topic that will be announced later.
- A final project report is required from each team.

Grading

- Exam I: 20%
- Exam II: 20%
- Final Exam: 30%
- Laboratory Assignments: 10%
- Homework Assignments: 10%
- Final Project: 10%