## Syllabus EECS170A, Section B Fall 2007 Electronics I

**Code 18220** 

**Textbook:** Semiconductor Device Fundamentals, Robert F. Pierret, Addison-

Wesley, 1996.

**Prerequisites:** Physics 7D, EECS70A, and EECS70B

**Co-requisites:** Physics 7E

## What I want you to learn about ("Outcomes"):

1. Basic properties of semiconductors

2. Carrier transport in semiconductors

3. p-n junction diodes and bipolar junction transistors

4. Transistor equivalent circuits and single stage amplifiers

5. How to design:

a. doping profiles of basic p-n junction diodes, basic

bipolar junction transistors

b. single-stage transistor amplifiers

**Lecture Hours:** 3:30-4:50 P.M. T/Th

**Lecture Classroom:** MTSB 118

**Discussion Sessions:** B2: W 12:00-12:50 DBH 1200

**Instructor:** Peter Burke, Prof. of Electrical Engineering and Cptr. Science

2232 Engineering Gateway 949-824-9326 pburke@uci.edu

**Instructor Office Hours:** 2-3:30 Tu/Th

**Lab quiz** Thursday Nov. 29, 2007 3:30-4:50 pm

Teaching Assistant: Gloria Yang gyyang@uci.edu

T.A. Office: MSTB 216

**T.A. Office Hours:** To be announced

Grading Components: Homework 20%

Midterm Exam (Tuesday Oct. 23, 3:30-4:50 pm) 40% Final Exam (Tuesday Dec. 11, 4-6 pm) 40%