Syllabus
EECS170A, Section B Fall 2004 **Code 15520**
Electronics I

Textbook: *Semiconductor Device Fundamentals,* Robert F. Pierret, Addison-Wesley, 1996.

Prerequisites: Physics 7E, ECE70A, and ECE70B

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: SSL 228
Discussion Sessions: B1: Tu 11:00-11:50 A.M. IERF B011
B2: W 5:30-6:20 P.M. CS 180
B3: Th 8-8:50 A.M. IERF B011

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 Date to be announced

Teaching Assistant: Kim Pham nkpham20@yahoo.com

T.A. Office: MSTB 216

T.A. Office Hours: To be announced

Grading Components:

Homework	5%
Midterm Exams (dates to be announced)	25% + 25%
Final Exam (Dec. 7, 4-6 pm)	45%

Questions policy:

There is no such thing as a dumb question. However, there is also a time and a place for everything, so…

The appropriate use of **email, lecture, discussion section, office hours** is as follows:
If you have questions about the **content** of the course or the homework problems, the appropriate venue is to ask questions during **lecture**, the **discussion sections**, or **TA or instructor office hours**. Emails regarding content will be ignored, because it is difficult to explain content related material by email. Questions during lecture are encouraged!

If you have questions about the **administration** of the course, the appropriate venue is to ask questions during the **lecture** if it concerns all students, or during **instructor office hours** if it concerns only you. Emails requesting extensions will be ignored. If it concerns all students it is only fair that all students get to hear the answer during the lecture period!

If you have a question about what is going to be covered on the midterm or final, those questions will only be answered during the **lecture**, not by email or in office hours. No emails about the content of the midterm or final will be answered. The reason is that it is only fair for all the students to hear the answer to your question!

Grading policy:

Graded material (HWs, exams, etc.) will be available for you to pick up during TA office hours. The solution sets will be available in the TA office, and on the course website. If you have a question about how a HW, midterm, or final was graded, you must see the TA first before leaving his office. Once you leave the TA office, you waive the right to question the grade. This is to prevent students from changing the answer and coming back to the TA. Do not pick up your friend's work for them, because they will lose the right to question their grade.

You must use units on everything you turn in. No units, no credit, not even partial credit.

The number to letter grade conversion factor will be assigned at the end of the quarter. The scale will be approximately (but not exactly) 80-100 A, 70-80 B, 60-70 C, 50-60 D, 0-50 F. I will decide what the exact scale will be at the end of the quarter. If I think the entire class deserves better or worse I might scale it up or down a little bit.

Exam format:

The content and format of the exams will not necessarily be at all like any previous exams given by this or any other Professor. Do not rely on previous year's exams as your only study guides. In other words, I am not telling you what the exam format will be like. If you know the material, you will do well, no matter what format the exam is. You must bring your student photo ID to the exams. The exams will be open book, open notes, but no internet or cell phones.

Add cards and pre-requisites:

The Professor cannot sign add cards, as per a departmental policy. If the computer cannot add you, that means you have not satisfied the pre-requisites or the course is full. If you think you have satisfied the pre-requisites at another school, you need to discuss this with the Undergraduate Student Affairs Office (http://www.eng.uci.edu/ugrad/student_affairs), who will make a decision about the coursework you have already taken at another school and whether it should satisfy the prerequisites. If they approve, and only if they approve, they will arrange with the registrar to allow you to register electronically.

If you are currently enrolled in Physics 7E, and you have already taken Physics 7A, 7AL, 7B, 7BL, 7D, and 7DL, and ECE 70A and 70B or their equivalents, you may enroll. Pre-signed, pre-filled out petition forms for this are available from the TA. Bring the petition form to the undergraduate affairs office and they will check to make sure you have satisfied the prerequisites. They will arrange with the registrar to allow you to register electronically.

If you have not taken physics 7E and are not taking it right now, you cannot get a waiver.

Sections:
This section has a different instructor than the other 113A section, and will cover slightly different material. Your responsibility is to learn the material presented in this section alone. Please do not use my notes or assignments from last year. The notation is different, the material is different, and you will get confused.

Late work/attendance:
No late work will be accepted. There are no make-up exams. **Absolutely no HW will be accepted past the due date and *time*, even if you are only a minute late.** If you are sick, get a doctor's note. After you get better and bring it to office hours to discuss. **Attendance is mandatory!** If you do not attend class or discussion, your grade will be marked down. There are no make-up lectures.