### Instructor
Professor Hui-Kai Xie  
Office: Benton 221  
Phone Number: 846-0441  
E-Mail: hlx@ufl.edu

### Office Hours
M 5:00-6:00pm WF 3:00-4:30pm

### Time
MWF 7, 1:55-2:45 pm

### Classroom
Larsen 310

### Online
Web Site: http://www.mems.ece.ufl.edu/eel3396/

### Grader
James Brown, brownje_uf@yahoo.com  
Office: Larson 139  
Office Hours: MW, 9:35-10:25am.

### Texts

### Objectives
To present the theoretical and practical background of semiconductor device physics so that students understand and are able to design and optimize the properties of semiconductor materials and devices that are the basis for modern electrical and computer engineering.

### Coverage
Sections of chapters 1-19, tentatively as follows (subject to change, updates will be posted on the web):

- chapters 1.1, 1.2, 2.1, 2.2
- chapters 2.3, 2.4, 2.5
- chapters 3.1, 3.2
- chapters 3.3, 3.4, 3.5
- chapters 5.1, 5.2
- chapters 6.1, 6.2
- chapters 6.2, 7.1
- chapters 7.2, 7.3
- chapters 10.1, 10.2, 10.3, 10.4, 11.1
- chapters 11.2, 12.1, 12
- chapters 16.1, 16.2, 16.3
- chapters 16.3, 16.4
- chapters 17.1, 17.2
- chapters 17.3, 18.1, 18.2
- chapters 18.3, 19.1
Grading  

**Homework Quizzes:**

Homework will be assigned every Wednesday. Homework will not be graded; however, each subsequent Wednesday a short, one problem, 10-minute quiz will be held to test the material covered by the assigned homework. These homework quizzes will count for 20% towards your final grade. The lowest two quiz scores will be dropped. Homework and quiz solutions will be linked to this page after the quiz.

**Tests**

Tests I, II, and III count for 25% each, but only the two highest scores will be used. You may drop one. The final exam, cumulative, counts for 30% and the homework quizzes for 20%. The overall class average will determine the C+-B breakpoint. The A range will start one standard deviation above this point (but not higher than 90%), the D+ range one standard deviation below.

**Makeup Policy:**

The drop of two homework quizzes and one test is designed to accommodate any unexcused absence. A documented medical emergency, jury duty, family emergency, or special circumstance approved by the Dean of Students are the only situations where a makeup will be allowed.

**Partial Credit Policy:**

The student will receive as much partial credit as a particular solution allows. No full credit can be given though for a wrong solution. All issues about grading should be addressed in writing to Prof. Xie within one week of returning the work in question.

**Academic Honesty**

Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a student at the University of Florida and to be honest in all work submitted and exams taken in this class and all others.

**Examination Dates**

- Test I on Wednesday, February 11, 2004, In class
- Test II on Wednesday, March 14, 2004, In class
- Test III on Wednesday, April 7, 2004, In class
- Final Exam on Tuesday, April 27, 12:30pm – 2:30pm, in Larsen 310