

ECE277B, Spring 2012
Advanced Semiconductor Devices II

Course code 18460
Graduate Course, 3 units

Professor & Class Schedule

Peter Burke
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Office: EG 2232
Lect. Tu/Th 7:00 pm to 8:20 pm ELH 110
Office hours M/W 2-3:30 P.M.

Textbook:

Fundamentals of III-V Devices: HBTs, MESFETs, and HFETs/HEMTs
William Liu, Wiley (1999), ISBN 0-471-29700-3

Additional readings will be assigned during class, and the lecture notes will be available at the copy center sometime during 1st week of classes.

Grade:

25% Midterm 1, 25% Midterm 2, 25% Midterm 3, 25% Final Exam

Course Outline

1. Review of basic semiconductor physics
2. Two-terminal devices
3. HBT DC properties
4. HBT high frequency properties
5. FET DC properties
6. FET high frequency properties
7. Advanced materials (graphene, nanotubes, nanowires)