# ECE277B, Fall 2013

# Advanced Semiconductor Devices II

Course code 18455

Graduate Course, 3 units

**Professor & Class Schedule**

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Lect. M/W 5-6:20 PM ELH 110

**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. Emerging devices (nanomaterials)