

Outline (goal) for EECS 277B Spring 2012
Schedule is tentative.

Lecture 1 Band theory of solids
Lecture 2 Electrons and holes, drift and diffusion current
Lecture 3 Homojunctions & heterojunctions, 2-terminal devices
Lecture 4 Heterojunction bipolar transistors (HBT)
Lecture 5 HBT AC properties
Lecture 6 High-frequency figures of merit: f_T , f_{MAX}
Lecture 7 Field effect devices: MOSFET, JFET, MESFET
Lecture 8 Two-dimensional electron gas (2DEG)
Lecture 9 High electron mobility transistor (HEMT)
Lecture 10 HEMT AC properties
Lectures 11-13 Emerging nanomaterials (graphene, nanotubes, nanowires)

W1 Intro	L1
W2 L2	L2
W3 L3	Midterm #1 (covers L1-L2)
W4 L3	L4
W5 L5	L6
W6 Midterm #2 (covers L1-L6)	L7
W7 L8	L9
W8 L10	Midterm #3 (covers L1-L10)
W9 L11	L12
W10 L13	Review