Fall 2007 EECS 170A ELECTRONICS I lec B (18220) (Burke)
Distribution of topics and HW due dates might change.
Note: Discussion topics will be grouped as follows: W will cover the lecture from the same week.

Week	**Tuesday**	**Thursday**	**Discussion to cover (M/W/F)**	**Lab to cover (M/T/W)**	**HW to cover**
"0"		Introduction pp. 3-6	N/A	N/A	N/A
1	Resistance pp. 75-89	Resistance (continued) Energy bands pp. 23-34	I for 100 e/s A/cm^2	Equipment Input/output impedance	
2	Energy bands (continued) Doping pp. 35-40,57-61	Density of States Fermi Level pp. 41-57,61-67	ρ from R vice versa log plots (HW #2.1 '03 R_{AB} =10kΩ,10Ω)	Soldering, RC circuits	HW#1: current sizes (Due Wed)
3	Density of States Fermi Level (continued)	Diode I-V intro Band bending, pp. 89-93	μ from N_D, N_A ρ from N_D, N_A R from N_D, N_A	Resistivity measurement	HW#2: ρ from R R from ρ n,p from N_A, N_D (Due Wed)
4	MT 1 Covers HW 1,2 pp. 3-6,23-67,75-89	Diffusion, equilibrium, Einstein relationship pp. 94-104	E_F from N_D ('03 midterm #1)	Diode I-V	
5	Diffusion, equilibrium, Einstein relationship (continued)	p-n intro. pp. 195-208 BJT intro. pp. 371-372	Band bending examples p.144	Diode transient response	
6	p-n under bias pp. 215-221	p-n I-V pp. 235-240	p-n Electrostatics pp. 209-218	Transistor	HW#3 Band bending E_F from N_D (Due Wed)
7	Ebers-Moll and diode circuits pp. 371-379	Transistors circuits, biasing	p-n pp.209-214 Ex. calcs. of x_p,x_n,V_{bi}	Transistor switches	
8	Transistor amplifiers	HOLIDAY (Thanksgiving)	Example circuit biasing	No lab this week	
9	MOSFET pp. 563-571	LAB QUIZ	npn vs pnp	Amplifiers	
10	MOSFET pp. 611-617	MOSFET (continued)	CMOS	Amplifiers	HW#4: Circuits (diode, BJT,MOSFET) (Due Wed)
Finals	COURSE FINAL EXAM				