

Tentative Syllabus: Fall '10
Electronics II
Prof. Rhoades

Sequence	Topic	Text Chapter	Chapter Sections	Comments
I.	Ideal Op-Amps: Configurations	8	1	Inverting, non-inverting, voltage follower
II.	Op-Amps: Applications I	8	2-3	Not all circuits
III.	Frequency Response	9	1-4, 6, (7)	“Generic”, BJT, FET. Test 1
IV.	Op-Amp Performance Limitations	10	1-6	Finite gain, small-signal bandwidth, slew rate, offsets, etc.
V.	Op-Amps: Applications II	11 12	1-2 1, 3	Integrator, differentiator, comparator, phase-shift and Wien-bridge oscillators. Test 2
VI.	Voltage Regulators	13	1-3, (4-5)	Series and shunt elements, voltage reference
VII.	Special Devices	15	1-2	SCR and optocoupler
VIII.	Power Amplifiers	16	1-9, (10-11)	Emphasis on efficiency (handout)
IX.	Linear IC Principles	17	(1-5), 6, (7)	Mostly overview, emphasis on differential stages. Test 3

Text: Bogart, Beasley & Rico, *Electronic Devices and Circuits*, 6th edition.

Class: Room D122, M 5:00-7:45 p.m. No class 9/6 & 11/11, optional makeup day 11/24 (12/20 if needed).

Office: Room C232 (office hours MW 2:00-3:20)

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Electronics II Lab
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Week	Date	Title
L1	8/26/10	(None)
L2	9/2/10	Operational Amplifier Basics
L3	9/9/10	Op-amp Applications I
L4	9/16/10	Decibel Exercise
L5	9/23/10	Low-Frequency Response
L6	9/30/10	High-Frequency Response
L7	10/7/10	Multistage Amp Freq Response: PSPICE
L8	10/14/10	BJT Cascode Amplifier
L9	10/21/10	BJT Cascode Amplifier: PSPICE
L10	10/28/10	Operational Amplifier Non-Ideal Behavior
L11	11/4/10	Op-amp Applications II
L12	11/18/10	Wien-Bridge Oscillator
L13	12/2/10	Differential Amplifier and Voltage Regulator
L14	12/9/10	Push-Pull Power Amplifiers
L15	12/16/10	Only if needed for makeup

Lab: Room B229, Thurs. 5:00-7:45p.m. No lab on 11/11/10 or 11/25/10.

Office: Room C232 (office hours MW 2:00-3:20).