

Tentative Syllabus: Fall '07
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 224E Thames, M 5:30-8:20 p.m.
Office: Room 124 Thames (office hours TBA)

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Week	Date	Title
L1	8/28/07	(None)
L2	9/4/07	Operational Amplifier Basics
L3	9/11/07	Op-amp Applications I
L4	9/18/07	Decibel Exercise
L5	9/25/07	Low-Frequency Response
L6	10/2/07	High-Frequency Response
L7	10/9/07	Multistage Amp Freq Response: PSPICE
L8	10/16/07	BJT Cascode Amplifier
L9	10/23/07	BJT Cascode Amplifier: PSPICE
L10	10/30/07	Operational Amplifier Non-Ideal Behavior
L11	11/6/07	Op-amp Applications II
L12	11/13/07	Wien-Bridge Oscillator
L13	11/27/07	Push-Pull Power Amplifiers
L14	12/4/07	Differential Amplifier
L15	12/11/07	Final Exam Period (only if needed for makeup)

Lab: Room 117 Thames, Tues. 5:30-8:20 p.m.