

Week	Lecture	Section	Description	Chapter Problems	Labs	Tutorials	Tests
1	1		Course introduction and motivation			#1 Ideal op amp circuits	
	2	§1.4 - 1.5	Amplifiers: circuit models & parameters	48, 51, 56(skip e)			
2	3	§2.1-2.3	Introduction to op amps, ideal op amp circuits: inverting and noninverting configurations	2, 9, 15, 22, 25, 31, 55, 62		#1 Ideal op amp circuits	
	4	§2.2.4, §2.4	Op amp circuits: Summing and difference amplifiers	65			
	5	§2.5	Op amp Circuits: Integrators and Differentiators	81, 86			
3	6	§2.6	Opamp nonidealities (DC offsets and input bias current)	94, 95	Lab 1 Operational Amplifiers (PRA 1,3,5,7)	#2 Op amps with nonidealities	
	7	§2.8	Large Signal Limitations of Op Amps (output limits)				
	8	§2.8	Large Signal Limitations of Op Amps (slew rate)	121, 123			
4	9	§4.1	Ideal Diode, Simple Diode Circuits	2, 4, 7, 9	Lab 1 Operational Amplifiers (PRA 2,4,6,8)	#3 Diode circuits using ideal diode model	
	10	§3.1 - 3.3, 4.2	Semiconductor physics, Terminal Characteristics of Junction Diodes	20, 21, 23, 24, 27, 28			
	11	§4.3.1 - 4.3.6	diode models: Exponential, constant-voltage-drop, and ideal	36,37,40			
5	12	§4.2.3, 4.3.3, 4.3.7	Breakdown region, zener diodes, iterative analysis		Lab 2 Alarm (PRA 1,3,5,7)	#4 Diode small-signal analysis	Quiz 1 (Oct.2) Opamp (lec1-8)
	13	§4.4	small-signal diode model: derivation and applications (attenuator only)	49, 51, 56			
	14	§4.4	small-signal diode model: applications				
6	15	§4.6	Rectifier Circuits: half-wave, full-wave, bridge, peak	68, 70	Lab 2 Alarm (PRA 2,4,6,8)	#5 Diode: limiting & clamping circuits	
	16	§4.7	Limiting/clamping circuits, clamped capacitor, DC restorer, voltage doubler, LEDs	86, 87, 88(skip f,h)			
	17	§5.1	MOSFET Structure and Operation				
7			THANKSGIVING DAY OCT 13				
	18	§5.1	MOSFET (n-ch) Operating Regions	5, 13, 14	Lab 3 Diodes (PRA 1,3,5,7)	#6 MOSFET operating regions	
	19	§5.2	MOSFET Current-Voltage Characteristics				
8	20	§5.2	MOSFET Output resistance, p-ch	16, 17, 26, 37, 42	Lab 3 Diodes (PRA 2,4,6,8)	Midterm (Thu. Oct 23) coverage: op amps & diodes (lec 1-16)	
	21	§5.3	MOSFET DC Circuit Analysis	43, 45, 53, 58, 60			
	22	§6.1	BJT Structure and operation				
			STUDY BREAK OCT 27 - 31				

Week	Lecture	Section	Description	Chapter Problems	Labs	Tutorials	Tests
9	23	§6.2	BJT Current-Voltage Characteristics		Lab 4 DC Motor (PRA 1,3,5,7)	#7 DC analysis of MOSFET	
	24	§6.2	BJT output resistance and Early Effect, pnp BJTs	28, 29, 48			Quiz 2 (Nov.6) DC MOSFETs (lec17-21)
	25	§6.3	BJT Circuits at DC	54, 61, 62			
10	26	§6.3	BJT Circuits at DC (cont.)		Lab 4 DC Motor (PRA 2,4,6,8)	#8 DC analysis of BJT circuits	
	27	§7.1-7.2	MOSFET Small-Signal Models	25, 32			
	28	§7.1-7.2	BJT Small-Signal Models	48, 53, 58			
11	29	§7.3	Basic Amplifier Configurations (CS & CS with degeneration)	64, 65, 70, 73	Lab 5 BJT Amplifier (PRA 1,3,5,7)	#9 Transistor amplifiers	
	30	§7.3	Basic Amplifier Configurations (CE & CE with degeneration)				
	31	§7.3	Basic Amplifier (CG/CB brief, source/emitter follower)	78, 83, 85, 88			
12	32	§7.4	Biassing	92, 97, 101, 102	Lab 5 BJT Amplifier (PRA 2,4,6,8)	#10 Biassing and Small-signal analysis of transistors amplifiers	
	33	§7.5	Discrete-Circuit Amplifiers & Examples	118ab, 119ab, 120, 121, 125			
	34	§7.5	Discrete-Circuit Amplifiers & Examples	129, 133, 135			
13	35		overflow				
	36		Course review				