

# ECE 2100

## Tentative COURSE SCHEDULE

A. Stolp 01/05/03

Week	Date	lect	Topics	Textbook §
1	M 01/06	1	Introduction, Signals	1.1
	W 01/08	2	Signals, Frequencies, Digital signals, Signal processing, Amplification	1.2, 3
	F 01/10	3	Transfer characteristic, Clipping, dB, $R_{in}$ , $R_{out}$ , Amplifier model	1.4, 5
2	M 01/13	4	Frequency response, Bode Plots	1.6
	W 01/15	5	Frequency response, Bode Plots	Nilsson, 15.6,7
	F 01/17	6	Operational Amplifiers, Feedback	2.1 - 3
3	M 01/20	Martin Luther King Day		
	W 01/22	7	Op-Amp circuits	2.4, 5
	F 01/24	8	Op-Amp circuits, Instrumentation amplifier	2.6, 7
4	M 01/27	9	Non-ideal Op Amps, Frequency response, Clipping, Slew rate, bias	2.8, 9
	W 01/29	10	Non-linear Op-Amp circuits, Special circuits	
	F 01/31	11	Diodes, DC Diode circuits	3.1
5	M 02/03	12	Diode models, Zener, Shunt Regulator	3.4, 5, 9
	W 02/05	13	Shunt Regulator	3.6
	F 02/07	Exam 1		
6	M 02/10	14	Rectification, Power supplies	3.7
	W 02/12	15	Real power supplies, Clippers	Handout, 3.8
	F 02/14	16	Doublers, Triplers, Quadruplers, Special circuits	3.8
7	M 02/17	Presidents Day		
	W 02/19	17	Diode Equation	3.2
	F 02/21	18	Semiconductors, Basic Diode Physics	3.3
8	M 02/24	19	Semiconductors physics, Diode depletion region	
	W 02/26	20	Semiconductors physics, Diode forward bias	
	F 02/28	21	BJT transistor introduction	4.1, 4
9	M 03/03	22	Semiconductors physics in BJTs	4.2, 3
	W 03/05	23	Transistor bias	4.6, 10
	F 03/07	Exam 2		
10	M 03/10	24	Emitter follower, Current amplification, $R_{in}$ , $R_{out}$	4.11, 5
	W 03/12	25	Common emitter, Voltage amplification, $R_{in}$ , $R_{out}$	4.7, 8
	F 03/14	26	Partial bypass, Load lines	4.9
	M 03/17	Spring Break		
	W 03/19			
	F 03/21			
11	M 03/24	27	misc	4.12, 15
	W 03/26	28	Current mirrors, High frequency rolloff, Miller effect, Darlington, Sziklai	4.15
	F 03/28	29	FET transistor introduction, N-channel MOSFET construction, Regions	5.1
12	M 03/31	30	MOSFET characteristics, P-channel, N-channel depletion	5.2
	W 04/02	31	Diodes, LEDs, Diodes in AC circuits, Rectification	
	F 04/04	32	MOSFET characteristics, Breakdown, Bias	5.3
13	M 04/07	Exam 3		
	W 04/09	33	MOSFET DC circuits, Bias	5.4
	F 04/11	34	Transconductance, Common source	5.5
14	M 04/14	35	Other MOSFET bias methods, Current mirrors	5.6
	W 04/16	36	MOSFET amplifier circuits	5.7
	F 04/18	37	MOSFET amplifier circuits	5.8
15	M 04/21	38	MOSFET amplifier circuits	5.9
	W 04/23	39	FET types, JFETS	5.11
	F 04/25	Review, 3:30 - 5:30 pm		
16	M 04/28	Final Exam, 8:00 - 10:00		