

### ECE 255 Electronic Circuit Analysis and Design (as of Feb 11, 2003)

Lecture	Date	Topics	Pages
1	1/13	Introduction; Semiconductors and pn diodes	3–23
2	1/15	DC diode circuit models	23–32
3	1/17	AC diode circuit models	32–35
	1/20	<b>No Class – Martin Luther King Jr. Day</b>	
4	1/22	Zener diodes	39–40
5	1/24	Diode applications (power supplies)	49–63
6	1/27	Diode applications (LEDs)	82–84
7	1/29	Monolithic resistors; MOSFETs (n-channel, e-mode)	243–253
8	1/31	MOSFETs (n-channel, d-mode; p-channel)	253–258
9	2/3	Review for Exam 1	
10	2/5	MOSFET circuit analysis	262–269
11	2/6	<b>Exam 1: 7-8pm</b>	
12	2/7	MOSFET amplifiers	313–318
13-14	2/10-12	MOSFET small signal models	318–323
15	2/14	NMOS, CMOS inverters	269–281; 1034–1045 1003–1018
16	2/17	Bipolar junction transistors (BJTs)	97–113
17	2/19	BJT circuit analysis	113–130
18	2/21	Thermal effects	477–480
19	2/24	BJT bias circuits; stability	138–145
20	2/26	BJT applications (current mirrors)	145–147
21	2/28	Review for Exam 2	
22	3/3	Multi-stage circuits	147–150
	3/5	<b>No Class – Exam 1 Compensation</b>	
23	3/5	<b>Exam 2: 7-8pm</b>	
24	3/7	BJT amplifiers	163–170
25	3/10	BJT small signal models	170–185
26	3/12	MOSFET amplifiers (Review)	313–318
27	3/14	Common emitter amplifier analysis	185–205
	3/17	<b>No Class – Spring Vacation</b>	
	3/19	<b>No Class – Spring Vacation</b>	
	3/21	<b>No Class – Spring Vacation</b>	
28	3/24	Common source amplifier analysis	323–334
29	3/26	CE and CS amplifier design	
	3/28	<b>No Class – Exam 2 Compensation</b>	
30	3/31	CC (emitter follower) and CB amplifier analysis	205–219
31	4/2	CD (source follower) and CG amplifier analysis	334–345
32	4/4	BJT multi-stage amplifiers	219–226
33	4/7	Review for Exam 3	
	4/9	<b>No Class – Exam 3 Compensation</b>	
34	4/9	<b>Exam 3: 7-8 PM</b>	
35	4/11	MOSFET multi-stage amplifiers	355–362
36	4/14	Amplifier low frequency response	398–416
37	4/16	Amplifier general frequency response	383–398
38	4/18	High frequency transistor models	416–422; 426–430
39	4/21	Miller effect	422–426; 430–433
40	4/23	Amplifier high frequency response (CE/CS)	433–436
41	4/25	Amplifier high frequency response (CB/CG)	436–440
42	4/28	Amplifier high frequency response (multi-stage)	440–448
43	4/30	Multi-stage amplifier design	448–450
44	5/2	Multi-stage amplifier design; Review for Final Exam	