

Listado de los diferentes temas a cubrirse durante el curso según el libro “Microelectronics Circuits,” 6<sup>ta</sup> edición. El orden a seguir puede variar y los tópicos a discutirse pueden variar.

Lectures	Subject	Articles	Problems
1-3	Introduction, Signals	1.1, 1.2, 1.3	16, 22, 23, 25, 28, 29
	Amplifiers	1.4	39, 40
	Models for amplifiers	1.5	43, 45, 46, 49, 51, 52, 53, 54
4-6	Models for amplifiers (cont.)	1.5	
	Physics of diodes	3.1-3.2	1, 3, 5
	Physics of diodes	3.3	5, 8, 10
7-9	Diodes and the diode equation	4.1, 4.2	1, 2, 3, 4, 9, 10, 18, 19, 20, 21, 23, 29
	Diode models	4.3	33, 34, 35, 40, 41, 42, 44, 45
	Diode models (cont.)	4.3	
10-12	Reverse breakdown-Zener diodes	4.4	59, 62, 64
	Zener diodes as shunt regulators	4.4	
	Rectifier circuits	4.5	65, 69, 70, 71, 74, 75, 78, 79, 81, 82
13	Review		
14	Examination # 1		
15-17	Bipolar junction transistors (BJT)	6.1	1, 2, 5, 7, 8, 15, 17
	BJT characteristics	6.2	28, 29, 32, 34, 35, 36, 39, 40, 47
18-20	DC analysis of BJT circuits	6.3	52, 53, 54, 55, 57, 60, 62, 63, 68
	DC analysis of BJT circuits (cont.)	6.3	
	Small signal models	6.5	87, 88, 89, 91, 95, 96, 104, 105
21-23	Small signal models (cont.)	6.5	
	Biasing	6.7	128, 129, 130, 131, 135, 136, 137
	Biasing (cont.)	6.7	

24-26	Single stage amplifiers-common emitter	6.6/6.8	142, 144, 146, 147, 148
	Single stage amplifiers-common base	6.6/6.8	150, 151
	Single stage amplifiers-common collector	6.6/6.8	152, 153, 155
27	Review		
28	Examination #2		
29-31	Enhancement MOSFETs	5.1	
	Characteristics of E-MOSFETs	5.2	18, 19, 20, 22, 31, 41
	DC analysis of MOSFET circuits	5.3	45, 49, 40, 53, 55
32-34	Biasing in MOSFET amplifiers	5.7	101, 103, 104, 106, 107
	Biasing in MOSFET amplifiers (cont.)	5.7	
	Small signal model	5.5	71, 72, 77, 78, 79
35-37	MOSFET common source amplifier	5.6/5.8	85, 86, 88, 91
	MOSFET common gate amplifier	5.6/5.8	93, 94
	MOSFET common drain amplifier	5.6/5.8	95, 96
38	The depletion MOSFET	5.9.6	121, 122, 123
	The depletion MOSFET (cont.)	5.9.6	
39	Review		
40	Examination # 3		
41-43	Current mirrors	7.4	46, 47, 48, 53, 55, 56, 58
	MOSFET Differential amplifiers	8.1/8.2	13, 25, 29
	BJT Differential amplifiers	8.3/8.4	61, 62, 63, 64
44	Active loads	8.5.2	85, 86
	Active loads (cont.)	8.5.5	93, 94, 97

