

Class	Date	Topic	Notes Pages	Book Pages
1-1	Sept 3	Syllabus, Lab Stuff, PSpice, Semiconductor Materials, Si Crystal Structure, Intrinsic Carrier Concentration	1-8 Slides 1-27	3.7.1-3.7.4, 3.8
1-2	Sept 7	Semiconductor Physics Extrinsic Carrier Concentration, Drift and Diffusion Current, Conductivity	8-20 Slides 25-65	3.7.1-3.7.4, 3.8
1-3	Sept 8	Excess Carriers, Generation/Recombination, PN Junctions, Built-in potential, Reverse-biased PN junction capacitance.	20-34 Slides 66-70	3.7.1-3.7.4, 3.8
1-L	Sept 9	<a href="#">ECI Pre-test, Lab 1: PSpice, Agilent Scope Setup</a>		
2-1	Sept 10	Forward Biased Diode Junction, Resistor and Diode IV Characteristics, Techniques for Solving DC Diode Circuits (Iteration,).	35-53	3.1 – 3.3
2-2	Sept 14	Techniques for Solving DC Diode Circuits (MathCAD, PSpice). Load Line Solution. Ideal diode model. Rectifier. Diode model with 0.7 V Drop.	54-79	3.1 – 3.3
2-3	Sept 15	Diode model with 0.7 V Drop. Clipping Circuits.	79-84	3.1 – 3.3
2-L	Sept 16	<a href="#">Lab 2: I-V Characteristics of Diodes</a>		
3-1	Sept 17	Clipping Circuits, PWL Diode Model, Real Diode Specs	84-115	3.5 – 3.6
3-2	Sept 21	Zeners, Zener circuits, Zener Power Dissipation, Zener circuits and application of Thevenin Equivalent	116-125	3.4
3-3	Sept 22	Zener Circuits, Surge Suppressors	125-153	
3-L	Sept 23	<a href="#">Lab 3: Diode Circuits</a>		
4-1	Sept 24	Trojan, Diode Switching Speed	154-167	
4-2	Sept 28	Diode Switching Speed	168, 190	
4-3	Sept 29	<b>Exam 1</b>		
4-L	Sept 30	<a href="#">Lab 4: Zener Circuits</a>		
5-1	Oct 1	BJT Intro, Regions of Operation, BJT I-V Characteristic, BJT Load Lines, BJT as a Switch	191-212	5.2.1, 5.2.2
5-2	Oct 5	BJT as a Switch, Switching on and off a load resistor .	212-213	5.3.4, 5.10
5-3	Oct 6	Driving an LED, Driving a Relay	213-255	5.3.4
5-L	Oct 7	<a href="#">Lab 5: Diode Switching Speed and BJT Transistor Switches</a>		
6-1	Oct 8	BJT Load Lines with AC Swing	255-273	3.3.3
6-2	Oct 12	Intro to Biasing, Bad Bias, Bias with Emitter-Resistor Feedback.	274-304	5.3.1, 5.3.2, 5.3.3
6-3	Oct 13	Biasing with current sources.	305-327	5.5.1, 5.5.2, 5.5.4
6-L	Oct 14	<a href="#">Lab 6: Temperature Sensor Subsystem Design</a>		

7-1	Oct 19	Intro to Small Signal Models, Diode Small Signal Model, BJT Small Signal Model	328-348	3.3.8, 5.5 except 5.5.10
7-2	Oct 20	Two Port Models, h-parameter model, Small-signal, midband analysis, Common-Emitter Amplifier	348-378	5.5 except 5.5.10
<b>7-L</b>	<b>Oct 21</b>	<b>Lab 7: Bipolar Junction Transistor Biasing</b>		
7-3	Oct 22	Demo		
8-1	Oct 26	CE Input and Output Impedance, Source and load resistance, Emitter Follower gain	376-402	5.7
8-2	Oct 27	Emitter Follower Input and Output Impedance BJT Device Operation	402-421 422-435	5.7, 5.1
<b>8-L</b>	<b>Oct 28</b>	<b>Lab8: Single Stage BJT Amplifiers</b>		
<b>8-3</b>	<b>Oct 29</b>	<b>Exam 2</b>		
9-1	Nov 2	Review Exam.		
9-2	Nov 3	Intro to MOSFETs, MOSFET as a switch, MOSFET Bias	436-464	4.2.1, 4.2.2, 4.5
<b>9-L</b>	<b>Nov 4</b>	<b>Lab9: Single Stage MOSFET Amplifiers</b>		
9-3	Nov 5	Small Signal Model, Common Source, Source Follower, MOSFET Input and Output Impedance	465-485	4.4, 4.6, 4.7
10-1	Nov 9	MOSFET Device Operation	486 - 503	4.1
10-2	Nov 10	JFETs	504-523	
<b>10-L</b>	<b>Nov 11</b>	<b>Lab 10: Laboratory Practical Exam</b>		
10-3	Nov 12			