

## LESSON PLAN

Period	Date (tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
1	6/10/17	Energy bands in solids Carrier concn	I			
2	10/10/17	Intrinsic/extrinsic semiconductors	I			
3	14/10/17	Carrier -transposition	I			
4	11/10/17	diffusion currents	I			
5	13/10/17	velocity saturation	I			
6	17/10/17	Device equation	I			
7	17/10/17	Poisson's equation	I			
8	18/10/17	Current density equations	I			
9	20/10/17	conductivity equation	I			
10	24/10/17	Continued...	I			

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11	24/10/17	p-n junction barriers	II			
12	24/10/17	Built-in potential	II			
13	23/10/17	Diode current equation	II			
14	24/10/17	V-I characteristic	II			
15	31/10/17	Temperature dependence	II			
16	01/11/17	Diode leakage currents	II			
17	31/11/17	breakdown characteristics	II			
18	31/11/17	excess charge carriers	II			
19	31/11/17	diffusion capacitance	II			
20	31/11/17	problems solution	II			

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21	16/11/17	MOS Capacitors surface potentials	III			
22	17/11/17	Electrostatic Potential	III			
23	18/11/17	Charge distribution in silicon	III			
24	19/11/17	Capacitances in MOSFETs	III			
25	20/11/17	LF, HF, C-V Characteristics poly silicon work function	III			
26	21/11/17	Depletion charge	III			
27	22/11/17	Charge in SI, <del>sub</del> surface effect of interface traps	III			
28	23/11/17	Surface generation	III			
29	24/11/17	Recombination	III			
30	25/11/17	BJT	IV			

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31	5/12/17	MPS transistor operation	IV			
32	6/12/17	PNP transistor operation	IV			
33	7/12/17	MPS vs characteristics	IV			
34	12/12/17	PNP transistor VI Characteristics	IV			
35	12/12/17	BJT DEVICE MODELLING	IV			
36	13/12/17	HF parameter modelling	IV			
37	5/12/17	High frequency modelling	IV			
38	19/12/17	EBERHART 011 model	IV			
39	19/12/17	Parameters solution	IV			
40	20/12/17	MOSFET basics	IV			



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41	22/11/18	DELETION MODE OPERATION	IV			
42	24/11/18	ENHANCEMENT MODE OPERATION	IV			
43	26/11/18	DEPLETION- VS CHAR-	IV			
44	28/11/18	ENHANCEMENT- MODE-CHAR	IV			
45	29/11/18	SHORT CHANNEL EFFECTS	IV			
46	2/12/18	velocity saturation	IV			
47	2/12/18	channel length modulation	IV			
48	3/12/18	source-drain barrier reference	IV			
49	5/12/18	problems & solution.	IV			
50	9/12/18	dynamic MODEL Basics.	IV			

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51	9/12/18	MEYER MODEL	V			
52	14/12/18	CHARGE BASED CAPACITANCE MODEL	VB			
53	18/12/18	Long channel Charge Model	VB			
54	19/12/18	Channel charge MODEL	VI			
55	23/12/18	Limitation of Quasi-static MODEL	VI			
56	23/12/18	Small signal MODEL	VI			
57	24/12/18	Parameter extraction	VI			
58	24/12/18	Problems - solution.	VI			

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