

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
1	19/3/14	Review of vector calculus		?		
2	20/3	Review of Coordinate system				
3	21/3	"				
4	24/3	Electrostatics Coulomb's law	2			
5	"	E due to point charge	4			
6	26/3	E due to l_c	4			
7	27/3	E due to l_s	4			
8	28/3	E due to l_o	4			
9	2/4	Electric flux density D	4			
10	3/4	Gauss law & app's	4			
11	4/4	V, E & V relations	4			
12	7/4	Maxwell's first equation	4			
13	"	Energy density	6			
14	9/4	Connection of Coulomb's law & Gauss's law	4			
15	10/4	E, in dielectric, homogeneous medium	4			
16	16/4	Continuity equation $\nabla \cdot J = -\frac{\partial \rho}{\partial t}$	4			
17	17/4	Potential & Laplace equation	4			
18	21/4	Capacitance - problems	4			
19	"	Maxwell's 2nd Biot-Savart's law	11			
20	23/4	Ampere's circ-law & app's	4			

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21	24/4	B (magnetic flux density).	<u>II</u>	?		
22	25/4	magnetic fields	"			
23	26/4	magnetic scalar & vector potentials	"			
24	"	forces due to mag. fields	"			
25	30/4	Ampere's force law	"			
26	1/5	Inductance of mag. energy problems	"			
27	2/5	magnetic fields (magnetic field) Faraday's law	<u>III</u>			
28	2/6	Transformer emf	"			
29	"	Inconsistency of Amp's law	"			
30	4/6	displacement current density	"			
31	5/6	magnetic fields	"			
32	6/6	Boundary conditions for electrostatic fields	"			
33	9/6	Boundary conditions for magnetic fields	"			
34	12/6	EM wave ch-2 different media	<u>IV</u>			
35	16/6	wave equations	"			
36	"	uniform plane waves	"			
37	18/6	wave propagation in different media	"			
38	19/6	Conditions for dielectric materials	"			
39	20/6	Good conductors, lossy dielectrics	"			
40	23/6	Polarization, problems	"			

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41	23/6	<u>Em wave class-II</u> Reflection & Refraction	<u>V</u>	?		
42	24/6	Normal incidence	4			
43	24/6	Oblique incidence	4			
44	27/6	Env. Trans. & total internal reflection	4			
45	30/6	Surface impedance	4			
46	30/6	Impedance of parallel & series	4			
47	2/7	Power loss, problems	4			
48	3/7	<u>Guided waves</u> parallel plate waveguide	<u>VI</u>			
49	4/7	TE waves	4			
50	7/7	TM waves	4			
51	"	TEM waves	4			
52	9/7	TE, TM, TEM characteristics	4			
53	10/7	f_c , v_p , v_g , λ_c wave impedance	4			
54	11/7	Attenuation factors problems	4			
55	14/7	<u>TL-I</u> Types, parameters	<u>VII</u>			
56	"	TL examples	4			
57	16/7	Primary & Secondary Constants	4			
58	17/7	Characteristic impedance	4			
59	18/7	Propagation const v_p , v_g	4			
60	21/7	Infinite line concepts low loss / lossless line	4			

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61	21/7	distortion, attenuating losses concepts	III	?		
62	23/7	TL-II input impedance concepts	III			
63	24/7	SC fdc losses	4			
64	25/7	reflector coefficient VSWR, dBS losses	4			
65	28/7	$\lambda/4, \lambda/2, \lambda/8$ lines	4			
66	31/7	Smith chart Stub matching concepts	4			

[Signature]
21/9/19