

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks
1	19/8	Introduction D.E's order, degree of D.E's	I	e.g.	
2	22/8	Formation of D.E's	"	"	
3	23/8	Exact D.E's	"	"	
4	23/8	Integrating Factor, $\frac{1}{Mx + Ny}$	"	"	
5	26/8	J.F. $\frac{1}{Mx - Ny}$ e.g. $y \ln x$	"	"	
6	29/8	J.F. e.g. $y \ln y$	"	"	
7	30/8	Linear D.E's - problem	"	"	
8	30/8	Reduced to linear D.E's	"	"	
9	1/9	Orthogonal Trajectories	"	"	
10	2/9	Orthogonal Trajectories	"	"	
"	6/9	Newton's law of cooling	"	"	
12	6/9	Natural growth and decay	"	"	
13	8/9	Applications of O.D.E's 1st order.	"	"	
14	9/9	Higher order l.D.E - Introduction	II	"	
15	12/9	Homogeneous l.D.E complementary function	"	"	
16	13/9	particular integral	"	"	
17	13/9	problem on particular integral	"	"	
18	15/9	$y_p, Q = e^{ax}, a \in \mathbb{R}$	"	"	
19	16/9	$y_p, Q = \cos ax / \sin ax$	"	"	
20	19/9	$y_p, Q = x^n$	"	"	

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21	20/9	$y_p, Q = e^{ax} \cdot v(x)$	II	C.R	
22	20/9	$y_p, Q = x \cdot v(x), x^m v(x)$	"	"	
23	22/9	Solng $xy' = ax$	"	"	
24	23/9	Variation of parameters	"	"	
25	26/9	Euler's cauchy eqn	"	"	
26	27/9	Euler's - cauchy eqn	"	"	
27	27/9	Generalized mean value theorem	III	"	
28	29/9	Taylor's, Maclaurus series of one variable	"	"	
29	30/9	Taylor's series for two variables	"	"	
30	3/10	Maclaurus series for two variables	"	"	
31	4/10	partial derivative chain Rule, Total Differ	"	"	
32	4/10	Jacobian - problems	"	"	
33	6/10	Jacobian problems	"	"	
34	13/10	properties of Jacobian	"	"	
35	14/10	max/min withal-constant	"	"	
36	17/10	Maximum/minimum values	"	"	
37	18/10	Lagrange's multiplier method	"	"	
38	18/10	Maximum/min with constraint	"	"	
39	20/10	max/min values	"	"	
40	21/10	multiple integral introduction	IV	"	

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Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corre Upc
41	24/10	Double integral in xy-plane	TV	C.R	CR	
42	25/10	Double integral in xy-plane	"	"	"	
43	25/10	Double integral in polar plane	"	"	"	
44	27/10	change of variables	"	"	"	
45	28/10	change of variables	"	"	"	
46	31/10	change of order of integration	"	"	"	
47	1/11/16	change of order of integration	"	"	"	
48	1/11	Triple integral - problem	"	"	"	
49	3/11	Triple integral - problems	"	"	"	
50	4/11	Triple integral problems	"	"	"	
51	7/11	Areas using integrals	"	"	"	
52	8/11	Vectors introduction grad, del, curl, ∇^2	TV	"	"	
53	8/11	problems on grad, del, curl	"	"	"	
54	10/11	Finding scalar potential function	"	"	"	
55	11/11	Solenoidal, irrotational vectors	"	"	"	
56	14/11	Angle b/w plane	"	"	"	
57	15/11	vector identities	"	"	"	
58	15/11	Line integral, work done by force	"	"	"	
59	17/11	Surface integrals	"	"	"	
60	18/11	Volume integrals	"	"	"	

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Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
61	21/11	verification of Gauss theorem	V	C-R.		
62	22/11	Stokes's theorem - verification	"	"		
63	22/11	Stokes's theorem verification	"	"		
64	24/11	Gauss Divergence theorem verification	"	"		
65	25/11	Divergence theorem verification	"	"		
66	28/11	Finding flux of a surface	"	"		
67	29/11	Residue calculus	I, II			
68	29/11	Residue calculus	II, III			

2/10/16