

Department of Civil Engineering

M.Tech in Structural Engineering

Semester 1

Sl. No	Course Code	Name of the Course		
			L	T
1	O1PA101L	Professional and Communication Skills	0	0
2	C1PC120T	Advanced Numerical and Statistical Methods	3	1
3	G1PC101T	Structural Dynamics	3	0
4	G1PC102T	Matrix Methods of Structural Analysis	3	0
5	G1PC103T	Advanced Concrete Technology	3	0
6	G1PC104T	Design of Concrete Structural Systems	3	0
7	G1PC105L	Matrix methods of Structural Analysis Lab (STAAD PRO)	0	0
8	G1PC106L	Design of Concrete and Structural Systems Lab (STAAD PRO)	0	0
		Total Credit		

Semester II

Sl. No	Course Code	Name of the Course		
			L	T
1	G1PC201T	Finite Element Analysis	3	0
2	G1PC202T	Theory of Elasticity and Plasticity	3	0
3	G1PC203T	Limit State Design of Steel Structures	3	0
4		Elective 1	3	0
5		Elective 2	3	0
6		Elective 3	3	0
4	G1PC209L	Scientific Report Writing	0	0
5	G1PC302L	Machine Learning applications in Civil Engineering	0	0
		Total Credit		

Semester III

Sl No	Course Code	Name of the Course		
			L	T
1	G1PC301T	Application of Numerical Methods in Structural Engineering	3	0
2		Program Elective - 5	3	0
3		Program Elective - 6	3	0
4	G1PC207L	Structural Engineering lab (CASTING)	0	0
5	G1PC208L	Finite Element Analysis Lab (STAAD PRO)	0	0
6	G1PD301L	Project (Phase 1)	0	0
		Total Credit		

Semester IV

Sl No	Course Code	Name of the Course		
			L	T
1	G1PC401R	Project (Phase II)	0	0
		Total Credit		

Total Credits	7
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SI No	Course Code	Name of the Electives		
			L	T
1		Advanced Foundation Engineering	3	0
2		Design of Concrete Bridges	3	0
3		Design of Industrial Structures	3	0
4		Earthquake Resistant Design	3	0
5		Design of Tall Buildings	3	0
6		Energy Efficient Buildings	3	0
7		Environmental Engineering Structures	3	0
8		Experimental Stress Analysis	3	0
9		Machine Foundations	3	0
10		Maintenance & Rehabilitation of Structures	3	0
11		Theory and Design of Plates & Shells	3	0
12		Off Shore Structures	3	0
13		Prefabricated Structures	3	0
14		Pre-stressed Concrete Structures	3	0
15		Soil Structure Interaction	3	0
16		Stability of Structures	3	0
17		Structural Optimization	3	0
18		Composite Structures	3	0

P	C
4	2
0	4
0	3
0	3
0	3
0	3
2	1
2	1
	20

P	C
0	3
0	3
0	3
0	3
0	3
0	3
1	1
4	2
	20

P	C
0	3
0	3
0	3
2	1
2	1
0	5
	17

P	C
0	15
	15

2	
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