

COURSE STRUCTURE

TWO YEAR M. TECH. PROGRAM IN STRUCTURAL ENGINEERING

SEMESTER - I

Course Code	Course Title	Hrs/week			Credits
		L	T	P	
11M1WCE111	Advanced Structural Analysis	3	0	0	3
11M1WCE112	Structural Dynamics	3	0	0	3
11M1WCE113	Design of Reinforced Concrete Structures	3	0	0	3
11M1WCE114	Modelling, Simulation and Computer Applications	3	0	0	3
	Elective-I	3	0	0	3
11M1WCE713	Concrete Structures Laboratory	0	0	4	2
	TOTAL	15	0	4	17

SEMESTER – II

Course Code	Course Title	Hrs/week			Credits
		L	T	P	
	Solid Mechanics in Structural Engineering	3	0	0	3
	Design of Steel Structures	3	0	0	3
	Earthquake Resistant Design of Structures	3	0	0	3
	Theory of Plates and Shells	3	0	0	3
	Elective-II	3	0	0	3
	CAD Laboratory	0	0	4	2
	TOTAL	15	0	4	17

SEMESTER - III

Course Code	Course Title	Hrs/week			Credits
		L	T	P	
	Elective-III	3	0	0	3
	Elective-IV	3	0	0	3
	Seminar	0	0	0	2
	Project Part-I	0	0	24	12*
	TOTAL	6	0	24	20

* The credits shall be managed with Project Part II.

SEMESTER - IV

Course Code	Course Title	Hrs/week			Credits
		L	T	P	
	Elective-V	3	0	0	3
	Elective-VI	3	0	0	3

	Project Seminar	0	0	0	2
	Project Part II	0	0	24	14*
	TOTAL	6	0	24	22

* The result of Project Part I & II shall be forwarded cumulatively after evaluation of Dissertation

Grand Total of Credits = 76

LIST OF ELECTIVES

Sr. No.	Course Code	Course Title	Hrs/week			Credits
			L	T	P	
1.		Design of Industrial Structures	3	0	0	3
2.		Finite Element Methods	3	0	0	3
3.		Bridge Engineering	3	0	0	3
4.		Pre-stressed Concrete Design	3	0	0	3
5.		Composite Materials and Structures	3	0	0	3
6.		Plastic Analysis of Structures	3	0	0	3
7.		Analysis and Design of Tall Buildings	3	0	0	3
8.		Advanced Steel Design	3	0	0	3
9.		Wind Resistant Design of Structures	3	0	0	3
10		Stability of Structures	3	0	0	3
11		Cable Stayed and Suspension Bridges	3	0	0	3
12		Computer Application in Structural Analysis and Design	3	0	0	3
13		Masonry Structures	3	0	0	3
14		Recent Advances in Construction Materials	3	0	0	3
15		Repair and Retrofitting of Structures	3	0	0	3
16		Construction Methods and Equipments	3	0	0	3
17		Design of Substructures	3	0	0	3
18		Ground Improvement Engineering	3	0	0	3
19		Soil Dynamics and Machine Foundations	3	0	0	3
20		Soil Structure Interaction	3	0	0	3
21		Water Resources System Planning	3	0	0	3
22		Hydraulic Structures	3	0	0	3
23		Geoenvironmental Engineering	3	0	0	3
24		Solid and Hazardous Waste Management	3	0	0	3
25		Advanced Environmental Engineering				
26		Analysis and Design of Transportation Systems				

27		Analysis and Design of Pavement Systems	3	0	0	3
28		Quality and Safety Management in Construction	3	0	0	3
29		Construction, Economics and Finance	3	0	0	3
30		Research Methodology	3	0	0	3
31		Nanotechnology and Concrete	3	0	0	3