

DEPARTMENT OF CIVIL ENGINEERING

M. Tech. (Structural Engineering)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1st YEAR					Semester- I (Autumn)									
1.	CEN-541	Matrix Structural Analysis	PCC	4	3	-	2	3	-	15	25	20	40	-
2.	CEN-542	Continuum Mechanics	PCC	4	3	1	-	3	-	25	-	25	50	-
3.	CEN-543	Advanced Concrete Design	PCC	4	3	-	2	3	-	15	25	20	40	-
4.	CEN-544	Structural Dynamics	PCC	4	3	1	-	3	-	25	-	25	50	-
5.		Programme Elective-1	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		20										
					Semester-II (Spring)									
1.	CEN-545	Finite Element Analysis	PCC	4	3	-	2	3	-	15	25	20	40	-
2.	CEN-700	Seminar	SEM	2	0	0	2	-	-	-	-	-	100	-
3.		Programme Elective-II	PEC	4	-	-	-	-	-	-	-	-	-	-
4.		Programme Elective-III	PEC	4	-	-	-	-	-	-	-	-	-	-
5.		Programme Elective-IV	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		18										
2nd YEAR					Semester- I (Autumn)									
1.	CEN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
					Semester-II (Spring)									
1.	CEN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										
		Total Credits		68										

Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.

Program Elective Courses (Structural Engineering)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	CEN-521	Advanced Numerical Analysis (Autumn)	PEC	4	3	-	2	3	-	15	25	20	40	-
2.	CEN-638	Climate Change and its Impact on Water Resources	PEC	4	3	1	-	3	-	20-35	-	20-30	40-50	-
3.	CEN-641	Behaviour & Design of Steel Structures (Autumn)	PEC	4	3	-	2	3	-	15	25	20	40	-
4.	CEN-642	Analysis and Design of Bridges	PEC	4	3	-	2	3	-	15	25	20	40	-
5.	CEN-643	Analysis and Design of High rise Buildings	PEC	4	3	-	2	3	-	15	25	20	40	-
6.	CEN-644	Analysis and Design of Plates and Shells	PEC	4	3	-	2	3	-	15	25	20	40	-
7.	CEN-645	Mechanics of Composites	PEC	4	3	1	-	3	-	25	-	25	50	-
8.	CEN-646	Engineering Design Optimization and Reliability	PEC	4	3	-	2	3	-	15	25	20	40	-
9.	CEN-647	Condition Assessment and Retrofitting of Structures	PEC	4	3	-	2	3	-	15	25	20	40	-
10.	CEN-648	Concrete Technology	PEC	4	3	-	2	3	-	15	25	20	40	-
11.	CEN-649	Fracture Mechanics in Quasi-Brittle Materials	PEC	4	3	1	-	3	-	25	-	25	50	-
12.	CEN-650	Design of Bridge Sub-structure	PEC	4	3	-	2	3	-	15	25	20	40	-
13.	CEN-651	Wind Engineering	PEC	4	3	-	2	3	-	15	25	20	40	-
14.	CEN-639	Transportation Data Analysis Techniques	PEC	4	3	1	-	3	-	20-35	-	20-30	40-50	-