



AUTONOMOUS SCHEME - MTech Structural Engineering First Year CSE

SCHEME: 2023

Aca. Year.: 2023-24

SL No	Course Type	Course type series	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations					
								L	T	P	S	CIE Marks	SEE			Tot. Marks	
								Lecture	Tutorial	Practical	PBL/ABL/SL/Othrs.		Dur.	Th. Mrks	Lab. Mrks.		
SEM: I																	
1	BSC	1	23CSET11	Optimization Techniques	CV	CV	3	3	0	0		50	3	50	-	100	
2	IPCC	2	23CSEI12	Advanced Design of RC Structures	CV	CV	4	3	0	2		50	3	50	-	100	
3	PCC	3	23CSET13	Matrix methods of Structural Analysis	CV	CV	3	3	0	0		50	3	50	-	100	
4	PCC	4	23CSET14	Mechanics of Deformable Bodies	CV	CV	3	3	0	0		50	3	50	-	100	
5	PCC	5	23CSET15	Structural Dynamics	CV	CV	3	3	0	0	2	50	3	50	-	100	
6	PCC	6	23CSET16	Research Methodology and IPR	CV	CV	3	3	0	0		50	3	50	-	100	
7	PCCL	7	23CSEL17	Structural Engineering Lab	CV	CV	2	1	0	2		50	3	-	50	100	
SEM-I Total							21	19	0	4	2	350		300	50	700	
SEM: II																	
1	PCC	1	23CSET21	Advanced Design of Steel Structures	CV	CV	3	3	0	0	2	50	3	50	-	100	
2	IPCC	2	23CSEI22	Finite Element Method of Analysis	CV	CV	4	3	0	2		50	3	50	-	100	
3	PEC	3	23CSEP21x	Professional elective 1	CV	CV	3	3	0	0		50	3	50	-	100	
4	PEC	4	23CSEP22x	Professional elective 2	CV	CV	3	3	0	0		50	3	50	-	100	
5	PRJ	5	23CSEPR25	Mini Project with Seminar	CV	CV	4	0	0	0	@PBL	50	3	50	-	100	
6	PCCL	6	23CSEL26	Advanced Computation Laboratory	CV	CV	2	1	0	2		50	3	-	50	100	
SEM-II Total							19	13	0	4	2	300		250	50	600	
FIRST YEAR TOTAL							40										

BSC: Basic science course, PCC: Professional core, IPCC-Integrated Professional Core Courses, PCCL-Professional Core Course lab, PEC: Professional elective course, PRJ:Project, INT: Internship(G), SLC: Self learning course, L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities(Hours are for Interaction between faculty and students)

PEC-1

PEC-2

Course Code	Course Title	Course Code	Course Title
23CSEP211	Theory of Plates and Shells	23CSEP221	Stability of Structures
23CSEP212	Design of Precast & Composite Structures	23CSEP222	Design of High-Rise Structures
23CSEP213	Earthquake resistant Structures	23CSEP223	Design of Masonry Structures
23CSEP214	Advanced structural analysis	23CSEP224	Reliability Analysis of Structures

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AUTONOMOUS SCHEME - MTech Structural Engineering Second Year CSE

SCHEME: 2023

Aca. Year.: 2024-25

SL No	Course Type	Course type series	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks.	
SEM: III																
1	PCC	1	23CSET31	Design of Bridges	CV	CV	4	3	2	0		50	3	50	-	100
2	PEC	2	23CSEP33X	Professional elective 3	CV	CV	3	3	0	0		50	3	50	-	100
3	PEC	3	23CSEP34X	Professional elective 4	CV	CV	3	3	0	0		50	3	50	-	100
4	PRJ	4	23CSEPR34	Project Work phase 1	CV	CV	3	0	0	0	@PBL	50	3	50	-	100
5	PRJ	5	23CSEPR35	Societal Project	CV	CV	3	0	0	0	6	50	3	50	-	100
6	INT	6	23CSEG36	Internship			6	(06 weeks between II and III semesters.)				50	3	-	50	100
SEM-I Total							22	9	2	0	6	300		250	50	600

PEC-3				PEC-4			
Course Code	Course Title		Course Code	Course Title			
23CSEP331	Design Concepts of Substructures		23CSEP341	Special Concrete			
23CSEP332	Composite materials		23CSEP342	Prefabricated Structures			
23CSEP333	Design of Industrial Structures		23CSEP343	Fracture Mechanics			
23CSEP334	Structural Health Monitoring		23CSEP344	Repair and Rehabilitation of Structures			

SEM: IV																	
1	PRJ	2	23CSEPR41	Project work phase 2			18	-	-	-	@PBL	100	03	-	100	200	
2	SLC	1	23CSES1y	Self learning course - 1	NPTEL	NPTEL	PP/NP	0	0	0							
3	SLC	2	23CSES2y	Self learning course - 2	NPTEL	NPTEL	PP/NP	0	0	0							
SEM-II Total							18	-	-	-		100			100	200	
SECOND YEAR TOTAL							40										

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