

**SCHEME OF TEACHING AND EXAMINATION
M.TECH. COMPUTER AIDED DESIGN OF STRUCTURES**

I SEMESTER

Subject Code	Name of the Subject	Teaching Hours / Week		Duration of Exam in Hours	Marks for		Total Marks
		Lecture	Practical / Field Work		LA	Exam	
08CCS11	Mechanics of Deformable Bodies	4	2	3	50	100	150
08CCS12	Computational Structural Mechanics	4	2	3	50	100	150
08CCS13	Computational Structural Dynamics	4	2	3	50	100	150
08CCS14	Computer Aided Optimum Design of Structures	4	2	3	50	100	150
08CCS15x	Elective- I	4	2	3	50	100	150
08CCS16	Seminar	--	3	--	50	--	50
TOTAL		20	13	15	300	500	800

ELECTIVE - I

- 08CCS151 Computer Based Advanced Numerical Methods
- 08CCS152 Computer Aided Advanced Design of Metal Structures
- 08CCS153 Composite and Smart – Materials

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II SEMESTER

Subject Code	Name of the Subject	Teaching Hours / Week		Duration of Exam in Hours	Marks for		Total Marks
		Lecture	Practical / Field Work		LA	Exam	
08CCS21	Computer Aided Stability Analysis of Structures	4	2	3	50	100	150
08CCS22	Computer Aided Analysis of Plates and Shells	4	2	3	50	100	150
08CCS23	Computer Aided Analysis of Structures (FE Approach)	4	2	3	50	100	150
08CCS24	Applications of AI and Expert Systems in Structural Engineering	4	2	3	50	100	150
08CCS25x	Elective- II	4	2	3	50	100	150
	*Project Phase I (6 weeks Duration)	--	--	--	50	--	50
08CCS26	Seminar	--	--	--	50	--	50
TOTAL		20	13	15	300	500	800

ELECTIVE - II

- 08CCS251 Advanced Reinforced Concrete Design
- 08CCS252 Reliability Analysis and Reliability Based Design of Structures
- 08CCS253 Computer Aided Analysis and Design of Foundations and Earth Retaining Structures

* Between the II Semester and III Semester. After availing a vacation of 2 weeks.

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III SEMESTER

Subject Code	Name of the Subject	Teaching Hours / Week		Duration of Exam in Hours	Marks for		Total Marks
		Lecture	Practical / Field Work		LA	Exam	
08CCS31	Earthquake Resistant Design of Structures	4	--	3	50	100	150
08CCS32x	Elective-III	4	--	3	50	100	150
08CCS33x	Elective-IV	4	--	3	50	100	150
	*Project Phase II (5 weeks Duration)	--	*	--	--	--	--
08CCS34	Evaluation of Project Phase I	--	3	--	50	--	50
TOTAL		12	03	09	20	300	500

ELECTIVE - III

- 08CCS321 - Computer Aided Advanced Mechanics of Materials
- 08CCS322 - Computer Aided Advanced Structural Dynamics
- 08CCS323 - Computer Aided Design of Sub Structure

ELECTIVE - IV

- 08CCS331 - Computer Aided Design of Structural Elements (RC, Steel and PSC)
- 08CCS332 - Computer Aided Design of Lifeline Structures
- 08CCS333 - Concept of Pre Fabrication and Precast Structures

* 3 Days Course and 3 Days of Project Work.

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IV SEMESTER

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks
		Lecture	Practical / Field Work		LA	Exam	
08CCS41	Evaluation of Project Phase – II	-	3	-	50	-	50
08CCS42	Evaluation of Project work	-	3	-	50	-	50
08CCS42	Project work evaluation and Viva-voce	-	--	3	--	100+100	200
TOTAL		-	06	03	100	200	300
Grand Total (I to IV Semester): 2400							

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