

**Details of Course Structure: Semester-I F.Y.M.Tech (Structural Engineering)** 

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			E	valuati		Credits								
			TH	TU	PR	In Sem	End Sem	CC E	TU	TW	PR	OR	Total	TH	TU	PR	Total
CIV225101	DCC	F1: Numerical Methods in Structural Engineering	3	-	-	20	60	20	-	-	-	-	100	3	-	-	3
CIV225102	DCC	F2: Structural Dynamics	3	-	-	20	60	20	-	-	-	-	100	3	-	-	3
CIV225103	DCC	F3: Solid Mechanics	3	-	-	20	60	20	-	-	-	-	100	3	-	-	3
CIV225104	DEC	F4:Elective I A: Advanced Design of Steel Structures B:Optimization Techniques C:Structural Design of Precast Structures D: Structural Design of Concrete Bridges	3	-	-	20	60	20	-	-	-	-	100	3	-	1	3
CIV225105	LHS M	F5:Research Methodology and Intellectual Property Rights	3	-	-	20	60	20	-	1	1	-	100	3	1	-	3
CIV225106	DCC	F6 - Lab Practice- 1	-	-	4	-	-	-	-	25	-	25	50	-	-	2	2
		Total	15	-	4	100	300	100	-	25	-	25	550	15	-	2	17

**Abbreviations :** TH : Theory PR : Practical TU : Tutorial OR : Oral CA: Continuous Comprehensive Evaluation TW:Termwork

Dr. Pravinchandra Dhake

**PG** Coordinator

**Dr. P. D. Jadhao** HOD (Civil)



#### **Details of Course Structure: Semester-II** F.Y.M.Tech (Structural Engineering)

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week				-	Evaluati		Credits							
			TH	TU	PR	In Sem	End Sem	CCE	TU	TW	PR	OR	Total	TH	TU	PR	Total
CIV225107	DCC	F7: Theory of Plates and Shells	3	-	-	20	60	20	-	-	-	-	100	3	-	-	3
CIV225108	DCC	F8: Finite Element Method	3	-	-	20	60	20	-	-	-	-	100	3	-	-	3
CIV225109	DCC	F9: Advanced Design of Concrete Structures	3	-	-	20	60	20	-	-	-	-	100	3	-	-	3
CIV225110	DEC	F10: Elective-II A: Analysis & Design of EarthquakeResistant Structures B:Structural Design of Steel Bridges C:Structural Reliability	3	1	-	20	60	20	ı	1	ı	ı	100	3	1	-	3
CIV225111	DCC	F11: Lab Practice 2	-	-	4	-	-	-	-	25	-	25	50	-	-	2	2
CIV225112	PSI	F12:Seminar1	-	-	4	-	-	-	-	25	-	25	50	-	-	2	2
CIV225113	IMC	F13: Computer Aided Design	-	-	4	-	-	-	-	25	25	-	50	-	-	2	2
		Total	12		12	80	240	80	-	75	25	50	550	12		6	18

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PG Coordinator

**Dr. P. D. Jadhao** HOD (Civil)



Details of Course Structure: Semester-III S.Y.M.Tech (Structural Engineering)

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week				E	valuatioi		Credits							
			TH	TU	PR	In	End	CCE	TU	TW	PR	OR	Total	TH	TU	PR	Total
CIV226101	DEC	S1: Elective III A: High Rise Structures B: Design of Industrial Steel Structures C: Biomechanics & Biomaterials	3		-	20	<b>Sem</b> 60	20	-	-	-	-	100	3	-	-	3
CIV226102	LHSM	S2:IntroductiontoConstitution	2		- '	-	30	20	-	-	-	-	50	2	-	-	2
CIV226103	PSI	S3: Dissertation Phase-I	_		20	-	-	50	-	50	-	50	150	-	-	10	10
CIV226104	IMC	S4:InternshipSeminar	-		4	-	-	-	-	25	-	25	50	-	-	2	2
		Total	5		24	20	90	90	-	75	-	75	350	5	-	12	17

S4 will be seminar on internship and report submission. The internship of minimum 4 weeks is required to be done after 2<sup>nd</sup> semester examination.

Dr. Pravinchandra Dhake

**PG** Coordinator

**Dr. P. D. Jadhao** HOD (Civil)



Details of Course Structure: Semester-IV S.Y. M.Tech (Structural Engineering)

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week				F	Evaluati		Credits							
			TH	TU	PR	In Sem	End Sem	CC E	TU	TW	PR	OR	Total	TH	TU	PR	Total
CIV226105	MOOCS	S5*:MOOCs/NPTEL	-		-		100	-	-		-		100	3	-	-	3
CIV226106	PSI	S6: Dissertation Phase-II	-		30		-	50	-	100	-	100	250	-	-	15	15
		Total			30	ı	-	50	100	100	1	100	250	3	1	15	18

<sup>\*</sup>For S5 (MOOCs/NPTEL), students shall enroll for the MOOCs/NPTEL course in third semester and its evaluation shall be considered in the fourth semester. A course of minimum 8 weeks is mandatory.

Students can choose subjects from the following list-

- A: Design of Advanced Foundation
- B: Structural Stability, Retrofitting & strengthening of Structures
- C: Advanced Design of Prestressed Concrete Structures
- D: Design of Composite Structures
- E: Non linear analysis of Structures
- F: Disaster Management

G&H: Courses based on advanced topics as per recommendations from BOS based on available courses in relevant semester.

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