

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M. Tech in STRUCTURAL ENGINEERING
Effective from Academic Year 2022 - 23 Admitted Batch
R22 COURSE STRUCTURE AND SYLLABUS

I YEAR I – SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	Professional Core - I	Advanced Structural Mechanics	3	0	0	3
2	Professional Core - II	Theory of Elasticity and Plasticity	3	0	0	3
3	Professional Elective - I	1. Theory of Plates and Shells 2. Computer Oriented Numerical Methods 3. Structural Stability	3	0	0	3
4	Professional Elective - II	1. Advanced Reinforced Concrete Design 2. Structural Health Monitoring 3. Structural Optimization	3	0	0	3
5	Lab - I	Computer Aided Design Laboratory	0	1	2	2
6	Lab - II	Structural Engineering Laboratory	0	1	2	2
7		Research Methodology & IPR	2	0	0	2
8	Audit - I	Audit Course - I	2	0	0	0
		Total	16	02	4	18

I YEAR II – SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	Professional Core - III	Finite Element Analysis	3	0	0	3
2	Professional Core - IV	Structural Dynamics	3	0	0	3
3	Professional Elective - III	1. Advanced Steel Design 2. Structural Reliability 3. Design of High-Rise Buildings	3	0	0	3
4	Professional Elective - IV	1. Advanced Prestressed Concrete Design 2. Structural Health Monitoring 3. Design of Bridges	3	0	0	3
5	Lab - III	Numerical Analysis Laboratory	0	1	2	2
6	Lab - IV	Advanced Structural Analysis and Design Laboratory	0	1	2	2
7		Mini Project with Seminar	0	0	4	2
8	Audit-II	Audit Course- II	2	0	0	0
		Total	14	02	08	18

II YEAR I – SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	Professional Elective - V	1. Earthquake Resistant Design of Structures 2. Pre-Engineered Buildings 3. Rehabilitation and Retrofitting of Structures	3	0	0	3
2	Open Elective	Open Elective	3	0	0	3
3	Dissertation	Dissertation Work Review - II	0	0	12	6
		Total	6	0	12	12

II YEAR II - SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	Dissertation	Dissertation Work Review - III	0	0	12	06
2	Dissertation	Dissertation Viva-Voce	0	0	28	14
		Total	0	0	40	20

Open Elective Offered by the Department:

1. Green Buildings
2. Construction Project Management
3. Safety and Construction Practice Regulations