

VIGNANA BHARATHI INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

M.Tech – STRUCTURAL ENGINEERING

COURSE STRUCTURE (R22 Regulations)

I YEAR I SEMESTER

Sr.No	Course Code	Course Name	Core/Elective	L	T	P	Credits
1.	22SE6111	Advanced Structural Mechanics	Professional Core-I	3	0	0	3
2.	22SE6112	Theory of Elasticity and Plasticity	Professional Core-II	3	0	0	3
3.	22SE6171 22SE6172 22SE6173	Theory of Plates and Shells Computer Oriented Numerical Methods Structural Stability	Professional Elective-I	3	0	0	3
4.	22SE6174 22SE6175 22SE6176	Advanced Reinforced Concrete Design Advanced Foundation Engineering Structural Optimization	Professional Elective-II	3	0	0	3
5.	22MC6111	Research Methodology and IPR	MC	2	0	0	2
6.	22SE6151	Computer Aided Design Laboratory	Lab-I	0	0	4	2
7.	22SE6152	Structural Engineering Laboratory	Lab-II	2	0	4	2
8.	22AU6101	Audit Course-I	Audit-I	2	0	0	0
		Total Credits		16	0	8	18

I YEAR II SEMESTER

Sr.No	Course Code	Course Name	Core/Elective	L	T	P	Credits
1.	22SE6211	Finite Element Analysis	Professional Core-III	3	0	0	3
2.	22SE6212	Structural Dynamics	Professional Core-IV	3	0	0	3
3.	22SE6271 22SE6272 22SE6273	Advanced Structural Steel Design Structural Reliability Design of High-Rise Buildings	Professional Elective-III	3	0	0	3
4.	22SE6274 22SE6275 22SE6276	Advanced Prestressed Concrete Design Structural Health Monitoring Design of Bridges	Professional Elective-IV	3	0	0	3
5.	22SE6291	Mini Project with Seminar	MPWS	0	0	4	2
6.	22SE6251	Numerical Analysis Laboratory	Lab-III	0	0	4	2
7.	22SE6252	Advanced Structural Analysis and Design Laboratory	Lab-IV	0	0	4	2
8.	22MC6201	Audit Course-II	Audit-II	2	0	0	0
		Total Credits		14	0	12	18

II YEAR I SEMESTER

III Semester				L	T	P	Credits
Sr.No	Course Code	Course Name	Core/Elective				
1.	22SE7171 22SE7172 22SE7173	Earthquake Resistant Design of Structures Pre-Engineered Buildings Rehabilitation and Retrofitting of Structures	Professional Elective-V	3	0	0	3
2.	-	Open Elective	Open Elective	3	0	0	3
3.	22SE7181	Dissertation Work Review - I	Dissertation	0	0	12	6
		Total Credits		6	0	12	12

II YEAR I SEMESTER

IV Semester				L	T	P	Credits
Sr.No	Course Code	Course Name	Core/Elective				
1.	22SE7281	Dissertation Work Review - II	Dissertation	0	0	12	6
2.	22SE7282	Dissertation Viva-Voce	Dissertation	0	0	28	14
		Total Credits		0	0	40	20

For Dissertation Work Review – I, please refer 7.10 in R22 Academic Regulations

Open Electives Offered by the Department:

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

Audit Course I & II

4. English for Research Paper Writing.
5. Disaster Management.
6. Sanskrit for Technical Knowledge.
7. Value Education.
8. Constitution of India.
9. Pedagogy Studies.
10. Stress Management by Yoga.
11. Personality Development through Life Enlightenment Skills.