3-year M.Tech course curriculum
Structural Engineering, Department of Civil Engineering

Course curriculum
Semester 1

Sr. No.	Course Name	Code	Credit	Course type
1	Advanced Structural Mechanics	CE50110	3	Department core
2	Structural Engineering Lab	CE50141	1	Department core
3	Elective I	XXXX	3	Elective
4	English Communication	CEXXXX	1	Soft skills
Total credits			**8**	

Semester 2

Sr. No.	Course Name	Code	Credit	Course type
1	Finite Element Analysis	CE50130	3	Department core
2	Structural Dynamics	CE50140	3	Department core
3	Finite Element Lab	CE50131	1	Department core
4	Industrial Seminar	CE50106	1	Life skills
Total credits			**8**	

Semester 3

Sr. No.	Course Name	Code	Credit	Course type
1	Applied Elasticity and Plasticity	CE50120	3	Department core
2	Elective II	XXXX	3	Elective
3	Master's thesis	CE60015	4	Thesis
Total credits			**10**	

Semester 4

Sr. No.	Course Name	Code	Credit	Course type
1	Elective-III	XXXX	3	Elective
2	Elective-IV	XXXX	3	Elective
3	Master's thesis	CE60025	4	Thesis
Total credits			**10**	

Semester 5

Sr. No.	Course Name	Code	Credit	Course type
1	Master's thesis	CE60035	8	Thesis

Semester 6

Sr. No.	Course Name	Code	Credit	Course type
1	Master's thesis	CE60045	8	Thesis

List of Approved Electives

Course Name	Code	Credit
Advanced Reinforced Concrete Design	CE50212	3
Advanced Structural Steel Design	CE50232	3
Mathematical Methods in Civil Engineering	CE50170	3
Advanced Concrete Technology	CE50190	3
Fracture Mechanics	CE50350	3
Structural Reliability Analysis	CE50180	3
Advanced Finite Element Analysis	CE60160	3
Structural Condition Assessment and Strengthening	CE50224	3
Prestressed Concrete Design	CE60222	3
Stability of Structures	CE50150	3
Design Studio	CE50002	3
Bridge Engineering	CE50214	3
Applied Finite Elements	CE50240	3
Theory of Plates and Shells	CE60160	3
Design of Cold-Formed Light Gauge Steel Structures	CE60270	3
Computational Methods in Material Science	MS5140	3
Continuum Mechanics	ME5260	3
Analysis and Design of Composite Structures	ME5700	3
Nonlinear Dynamics and Vibration	ME5120	3
Machine learning and its applications	ME6040	3