



NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR
*(An autonomous Institute of National Importance under the
aegis of Ministry of Education, Govt. of India)*
**Hazratbal, Srinagar Jammu and Kashmir,
190006, INDIA**

**Structural Engineering
2025 Onwards**

REVISED SCHEME AND SYLLABUS

For

POST GRADUATE PROGRAMME

(Master of Technology)

IN

STRUCTURAL ENGINEERING

(EFFECTIVE FROM: 2025 BATCH)

DEPARTMENT OF CIVIL ENGINEERING

NATIONAL INSTITUTE OF TECHNOLOGYSRINAGAR

HAZRATBAL, SRINAGAR, KASHMIR, J&K, INDIA – 190006



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PROPOSED SCHEME OF COURSES FOR 1st SEMESTER – 2025 ONWARDS

S. No.	Course Code	Course Title	L	T	P	Credits
1.	CSE-101	Advanced Structural Analysis	2	1	0	3
2.	CSE-102	Structural Dynamics	2	1	0	3
3.	CSE-103	Building Information Modelling	2	1	0	3
4.	CSE-104	Theory of Elasticity	2	1	0	3
Elective-I						
5.	CSE-111	Design of Tall Buildings	2	1	0	3
	CSE-112	Design of Bridge Superstructures				
	MTH-105	Numerical Methods in Civil Engineering				
Elective-II						
6.	CSE-121	Behaviour and Design of Steel Structures	2	1	0	3
	CSE-122	Theory of Plates and Shells				
	CGE-102	Analysis and Design of Foundation Systems				
		Total	12	6	0	18

PROPOSED SCHEME OF COURSES FOR 2nd SEMESTER – 2025 ONWARDS

S. No.	Course Code	Course Title	Contact Hours			
			L	T	P	Credits
1.	CSE-201	Finite Element Analysis	2	1	0	3
2.	CSE-202	Earthquake Resistant Design	2	1	0	3
3.	CSE-203	Advanced Concrete Technology	2	1	0	3
Elective-III						
5.	CSE-211	Theory of Plasticity	2	1	0	3
	CWE-223	Applications of AI/ML in Civil Engineering				
	CGE-222	Soil-Structure Interaction				
Elective-IV						
6.	CSE-221	Design of Industrial Structures	2	1	0	3
	CSE-222	Construction Technology and Management				
	CGE-202	Soil Dynamics and Machine Foundations				
		Total	10	5	0	15



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PROPOSED SCHEME OF COURSES FOR 3rd SEMESTER – 2025 ONWARDS

S. No.	Course Code	Course Title	Contact Hours			
			L	T	P	Credits
1.	CSE-301	Dissertation (Stage-1)	0	0	12	6
2.	CSE-302	Advanced Concrete Design	2	1	0	3
		Elective-V				
3.	CSE-311	Design of Bridge Substructures	2	1	0	3
	CSE-312	Reliability Based Civil Engineering Design				
	CGE-305	Geotechnical Earthquake Engineering				
		Elective-VI				
4.	CSE-321	Retrofitting and Rehabilitation of Structures	2	1	0	3
	CSE-322	Behaviour and Design of Underground Structures				
	CSE-323	Pre-Stressed Concrete				
		Total	6	3	12	15

PROPOSED SCHEME OF COURSES FOR 4th SEMESTER – 2025 ONWARDS

S. No.	Course Code	Course Title	Contact Hours			
			L	T	P	Credits
1.	CSE-401	Dissertation (Stage-2)	0	0	24	12
		Total	0	0	24	12

Grand Total of Credits = 60