Department of Applied Mechanics

List of Courses for Postgraduate (PG)Program

M. Tech. in Structural Engineering

I. To be offered in Odd Semester

Sr. No.	Course Code*	Course Title	Type DC/DE /AU	Structure L-T-P	Credits	Pre-requisite
1	AML523	Theory of Elasticity and Plasticity	DC	3-0-0	3	
2	AML	Finite Element Analysis	DC	3-0-2	4	
3	AML	Structural Dynamics	DC	3-0-2	4	
4	AML541	Theory of Plates and Shells	DC	3-0-0	3	
5	AMP	Technical Writing and Communication Skills	DC	0-0-2	1	
6		Elective	DE	-	3/4	
7	AMD501	Project Phase-I	DC	-	3	25 Credits
8	AML	Earthquake Engineering	DE	3-0-0	3	
9	AML547	Numerical Methods and Programming	DE	3-0-2	4	
10	AML	Foundations	DE	4-0-0	4	
11	AML542	Stability of Structures	DE	3-1-0	4	
12	AML	Masonry Structure and Retrofitting	DE	3-0-2	4	
13	AML	Advanced Concrete Technology and Testing	DE	3-0-2	4	
14	AML	Reinforced Concrete Design to IRC112	DE	3-0-2	4	
15	AML	Earthquake-Resistant Design of Structures	DE	3-0-0	3	
15	AML	Numerical Methods for Dynamic Systems	DE	3-0-2	4	
16	CEL520	Advanced Soil Mechanics	DE	3-0-0	3	

* The scheme has been sent to Examination Section for assignment of Course Codes for new courses.

II. To be offered in Even Semester

Sr. No.	Course Code*	Course Title	Type DC/DE / AU	Structure L-T-P	Credits	Pre-requisite
1	AML	Concrete structures	DC	3-0-2	4	
2	AML	Steel Structures	DC	3-0-2	4	
3	AML	Experimental Stress Analysis and Instrumentation	DC	2-0-2	3	
4		Elective	DE	-	3/4	
5		Elective	DE	-	3/4	

6		Elective	DE	-	3/4	
7	AMP	Research Methodology and Presentation	DC	0-0-2	1	
8	AMD502	Project Phase-II	DC	-	9	35 Credits + Project Phase-I
9	AML543	Earthquake Dynamics	DE	2-0-2	3	
10	AML	Bridges	DE	3-0-2	4	
11	AML	Industrial Steel Structures	DE	3-0-2	4	
12	AML	Water Retaining Structures	DE	3-0-2	4	
13	AML	Multistoried Buildings	DE	3-0-2	4	
14	AML	Blast Loading of Structures	DE	4-0-0	4	
15	AML	Advanced Finite Element Analysis	DE	3-0-2	4	
16	AML	Machine Foundations	DE	4-0-0	4	
17	AML	Seismic Evaluation and Retrofitting of Structures	DE	2-0-2	3	
18	AML	Analysis and Design of Pipes	DE	3-0-2	4	
19	AML	Composite Structures	DE	4-0-0	4	
20	AML	Structural Health Monitoring and Rehabilitation	DE	2-0-2	3	
21	AML	Irrigation Structures	DE	3-0-2	4	
22	AML	Advanced Earthquake-Resistant Design of Structures	DE	3-0-0	3	
23	AML	Nonlinear Structural Analysis	DE	3-0-0	3	
24	AML	Prestressed Concrete Structures	DE	3-0-2	4	
25	CIV	Advanced Foundation Engineering	DE	3-0-0	3	
26	CIV	Design of Underground Structures	DE	3-0-0	3	
27	CIV	Soil Structure Interaction	DE			
28	AML566	Random Vibration Analysis	DE	3-0-0	3	
29	AML	Earthquake-Resistant Design of Concrete Buildings	AU	3-0-2	4	
30	AML	Earthquake-Resistant Design of Steel Buildings	AU	3-0-2	4	

* The scheme has been sent to Examination Section for assignment of Course Codes for new courses.

III. Total credits to be earned for completion of the degree program:

a) Through DC category courses = 39 credits
b) Through DE category courses = 14/15 credits

Total = 53/54 credits

IV. This DC/DE categorization of the courses for the M. Tech. program in **Structural Engineering** is approved in the BoS meeting held **Through Circulation in April, 2020** and will be applicable for the students admitted to the first semester of the program during the academic year 2020-2021.

Date:

(Prof. M. M. Mahajan)
Chairman, Board of Studies