

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI

भारतीय प्रौद्योगिकी संस्थान तिरुपति

Yerpedu-Venkatagiri Road, Yerpedu Post, Tirupati District, Andhra Pradesh - 517 619

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1.	Title of the course	Structural Analysis
2.	Course number	CE208L
3.	Structure of credits (L-T-P-C)	2-1-0-3
4.	New course/modification to	Modified with CE206L/STRUCTURAL ANALYSIS
5.	To be offered by	Civil and Environmental Engineering
6.	Proposed by	Bijily B
7.	Prerequisite	None
8.	Course Objective(s): To discuss the basic concepts of structural analysis of statically determinate and indeterminate structures.	
9.	Course Content: Structures and structural components, load, responses, indeterminacy, free-body diagrams; Analysis of statically determinate structures: trusses, beams and frames, cables and arches; Influence lines for beams under moving loads; Displacement responses in statically determinate structures: principle of virtual work, energy methods; Indeterminate structures: force and displacement methods.	
10.	Textbook(s): 1. Menon D, Structural Analysis, 3rd Edition, Narosa Publishing House, New Delhi (2023). 2. Hibbeller R C, Structural Analysis, 11th Edition, Pearson, London (2023).	
11.	Reference(s): 1. Wang C K, Intermediate Structural Analysis, McGraw Hill, India (2017). 2. Yuan Y H, Elementary Theory of Structures, 3rd Edition, Prentice Hall, New Jersey (1987). 3. Norris C H, Wilbur J B and Uktu S, Elementary Structural Analysis, 4th Edition, McGraw-Hill Inc., US (1991).	