

LESSION PLAN

DISCIPLINE: CIVIL ENGG.	SEMESTER: 4TH	NAME OF THE FACULTY: SUSHREE SOURAVI ROUT
SUBJECT:TH:5(C)- DESIGN OF STEEL STRUCTURES	NO OF DAYS/WEEK CLASS ALLOTED: 45	SEMESTER FROM DATE: 22.12.2025 TO 18.04.2026
WEEK	CLASS/DAY	THEORY TOPICS
1st	1	UNIT –I:Design of connections in steel structures Types of connection, bolted connection, Strength of bolted joints,
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	3	
2nd	4	Design of bolted joints for axially loaded members. Types of weld, welded connections, Permissible stresses in weld, Strength of weld.
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3rd	7	Advantages and disadvantages of weld, Design of fillet weld and butt weld for axial load.
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4th	10	UNIT-II: Design of Steel Tension (Limit State Method) Types of sections used for Tension members.
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5th	13	Strength of tension member by- yielding of section, rupture of net cross-section and block shear.
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6th	16	Design of axially loaded single angle and double angle tension members with bolted and welded connections.
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7th	19	UNIT-III:Design of Steel Compression Members (Limit State Method) Types of sections used as compression member, Calculation of effective length, Radius of gyration and slenderness ratio, Permissible values of slenderness ratio as per IS 800-2007, Design compressive stress,Design of column bases for axially loaded columns only.
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8th	22	Introduction to built up sections, lacing and battening (Meaning and purpose), Diagrams of single and double lacing and battening system. (No numerical problems).
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9th	25	Design of axially loaded single and double angle struts connected by bolted and welded connections with gusset plate.
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10th	28	
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11th	31	
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12th	34	
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	36	UNIT-IV:Design of Steel beams (Limit State Method)
13th	37	Standard beam sections, Bending stress calculations.
	38	Design of simple I and channel section.
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14th	41	Check for shear as per IS 800 2007
	42	Simple and built up sections
43		
15th	44	
	45	numerical


 Rout 24/12/25
 Sushree Souravi Rout
 Lecturer Stg-II (Civil Engg.)