

**GANESH INSTITUTE OF ENGINEERING AND TECHNOLOGY, POLYTECHNIC**

**DEPARTMENT OF CIVIL ENGINEERING**

**NAME OF FACULTY:- Er. D. R. Mohapatra**

**LESSONPLAN CUM PROGRESS REPORT**

SUBJECT:DESIGN OF STEEL STRUCTURE				SEMESTER: 4 <sup>TH</sup>			BRANCH: CIVIL ENGINEERING		
LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME/CHAPTER NO./PAGE NO.	WEB REFERENCE IF ANY	TEACHING LEARNING METHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
1	1	4	Design of connections in steel structures	B. N. Duggal / Samal&Panigrahi	<a href="https://youtu.be/vQRJyA7BNVA?si=fGOrOGrnOBuzVbWN">https://youtu.be/vQRJyA7BNVA?si=fGOrOGrnOBuzVbWN</a>	1-Introduction to DSS by LSM-5 min 2-Prerequisites for DSS, PPT/Smart board-10 min 3-Syllabus & CO discussion-10 min	22.12.2025		
2	1	2	Types of connection, bolted connection, Strength of bolted joints,	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	23.12.2025		
3	1	2	Types of connection, bolted connection, Strength of bolted joints,	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	24.12.2025		
4	1	4	Design of bolted joints for axially loaded members.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	29.12.2025		
5	1	4	Design of bolted joints for axially loaded members.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	30.12.2025		
6	1	1	Types of weld, welded connections, Permissible stresses in weld, Strength of weld.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	31.12.2025		
7	1	1	Types of weld, welded connections, Permissible stresses in weld, Strength of weld.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	05.01.2026		
8	1	1	Types of weld, welded connections, Permissible stresses in	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	06.01.2026		
9	1	2	Advantages and disadvantages of weld, Design of fillet weld and butt weld for axial load.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	07.01.2026		
10	1	2	Advantages and disadvantages of weld, Design of fillet weld and butt weld for axial	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	12.01.2026		

LECTURE NO.	CO	BTL	TOPIC TO BE COVERED		WEBREFERENCEIF ANY	TEACHING LEARNING METHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
11	2	4	Design of Steel Tension (Limit State Method)	B. N. Duggal / Samal&Panigrahi	<a href="https://youtu.be/1ntF-4217JU?si=pB2UsPydBnuIEbyN">https://youtu.be/1ntF-4217JU?si=pB2UsPydBnuIEbyN</a>	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer-30 4-Doubts	13.01.2026		
12	2	1	Types of sections used for Tension members.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	15.01.2026		
13	2	1	Types of sections used for Tension members.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	19.01.2026		
14	2	1	Types of sections used for Tension members.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	20.01.2026		
15	2	2	Strength of tension member by- yielding of section, rupture of net cross-section and block shear.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	21.01.2026		
16	2	2	Strength of tension member by- yielding of section, rupture of net cross-section and block shear.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	27.01.2026		
17	2	2	Strength of tension member by- yielding of section, rupture of net cross-section and block shear.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	28.01.2026		
18	2	4	Design of axially loaded single angle and double angle tension members with bolted and welded connections.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	29.01.2026		
19	2	4	Design of axially loaded single angle and double angle tension members with bolted and welded connections.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	02.02.2026		
20	2	4	Design of axially loaded single angle and double angle tension members with bolted and welded connections.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	03.02.2026		
21	3	4	Design of Steel Compression Members (Limit State Method)	B. N. Duggal / Samal&Panigrahi	<a href="https://youtu.be/7YMJVTwEX_M?si=YiXxX5HzK3XWr3gI">https://youtu.be/7YMJVTwEX_M?si=YiXxX5HzK3XWr3gI</a>	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer-30	04.02.2026		
22	3	1	Types of sections used as compression member,	B. N. Duggal / Samal&Panigrahi		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	09.02.2026		

LECTURE NO	CO	BTL	TOPIC TO BE COVERED	WEB REFERENCE IF ANY	TEACHING LEARNING METHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
23	3	2	Calculation of effective length, Radius of gyration and slenderness ratio.	B. N. Duggal / Samal & Panigrahi	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	10.02.2026		
24	3	2	Calculation of effective length, Radius of gyration and slenderness ratio, Permissible values of slenderness ratio as per IS 800-2007 Design	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	11.02.2026		
25	3	2	Calculation of effective length, Radius of gyration and slenderness ratio, Permissible values of slenderness ratio as per IS 800-2007 Design	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	16.02.2026		
26	3	3	Design of column bases for axially loaded columns only.	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	17.02.2026		
27	3	3	Design of column bases for axially loaded columns only.	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	18.02.2026		
28	3	2	Introduction to built up sections, lacing and battening (Meaning and purpose), Diagrams of	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	23.02.2026		
29	3	2	Introduction to built up sections, lacing and battening (Meaning and purpose), Diagrams of	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts	24.02.2026		
30	3	2	Introduction to built up sections, lacing and battening (Meaning and purpose), Diagrams of	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	25.02.2026		
31	3	4	Design of axially loaded single and double angle struts connected by bolted and welded connections with gusset plate.	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	02.03.2026		
32	3	4	Design of axially loaded single and double angle struts connected by bolted and welded	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	05.03.2026		
33	3	4	Design of axially loaded single and double angle struts connected by bolted and welded connections with gusset	Lecture Note	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	06.03.2026		
34	3	4	Design of axially loaded single and double angle struts connected by bolted and welded connections with gusset	B. N. Duggal / Samal & Panigrahi	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	09.03.2026		

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35	3		Design of axially loaded single and double angle struts connected by bolted and welded connections with gusset	B. N. Duggal / Samal&Panigrahi		1-Previous class topic Review-5 min 2-Lecturer- & 3-Doubts & Assignment-10 min	10.03.2026		
36	4	2	Design of Steel beams (Limit State Method) Standard beam sections, Bending stress calculations.	B. N. Duggal / Samal&Panigrahi	<a href="https://youtu.be/2kGwnIqJly0?si=L59UIQE0YtEvtQJU">https://youtu.be/2kGwnIqJly0?si=L59UIQE0YtEvtQJU</a>	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer-4-Doubts	11.03.2026		
37	4	2	Standard beam sections, Bending stress calculations.	B. N. Duggal / Samal&Panigrahi		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	16.03.2026		
38	4	2	Design of simple I and channel section.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	17.03.2026		
39	4	2	Design of simple I and channel section.	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	18.03.2026		
40	4	2	Check for shear as per IS 800 2007	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	23.03.2026		
41	4	1	Check for shear as per IS 800 2007	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	24.03.2026		
42	4	3	Simple and built up sections,	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	30.03.2026		
43	4		Simple and built up sections,	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	31.03.2026		
44	4	1	Introduction to plate girder: Components and functions (no numerical)	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts -10 min	02.04.2026		
45	4	1	Introduction to plate girder: Components and functions (no numerical)	Lecture Note		1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assienment-10 min	06.04.2026		

Principal

Faculty

HOD, Civil Engineering