

# BALASORE SCHOOL OF ENGINEERING, BALASORE

## LESSON PLAN FOR 2022-23

BRANCH-CIVIL ENGINEERING	SEMESTER:5TH
SUBJECT- STRUCTURAL DESIGN-II	THEORY-02
NAME OF TEACHER-ER.SHUCHISMITA ROUT	

SL. No	CH. NO.	Month	DATE	NAME OF THE CHAPTER/OBJECTIVES	NO. OF PERIOD AVAIL. AS PER SYLLABUS	NO. OF PERIODS AVAILABLE AS PER PLAN
1	CH-1	sep	15/09/22	1.1 Common steel structures, Advantages & disadvantages of steel structures	05	08
2			16/09	1.2 Types of steel, properties of structural steel		
3			19/09	1.3 Rolled steel sections, special considerations in steel design		
4			21/09	1.4 Loads and load combinations		
5			22/09	1.5 Structural analysis and design philosophy.		
6			23/09	1.6 Brief review of Principles of Limit State design.		
7			24/09	CONTINUE		
8			26/09	CONTINUE		
9	CH-2	oct	28/09	2.1 Bolted connection, 2.1.1 Classification of bolts, advantages and disadvantages of bolted connections 2.1.2. Different terminology, spacing and edge distance of bolt holes.	10	16
10			29/09	2.1.3 Types of bolted connections. 2.1.4. Types of action of fasteners, assumptions and principles of design.		
11			30/09	2.1.5 Strength of plates in a joint, strength of bearing type bolts (shear capacity & bearing capacity), reduction factors, and shear capacity of HSFG bolts		
12			01/10	2.1.6 Analysis & design of Joints using bearing type and HSFG bolts (except eccentric load and prying forces)		
13			10/10	2.1.7. Efficiency of a joint		
14			12/10	CONT...		
15			13/10	CONT...		
16		14/10	.continue			



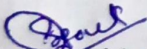
17			15/10	2.2.welded connection 2.2.1Advantages and Disadvantages of welded connection.		
18			17/10	2.2.2Types of welded joints and specifications for welding.		
19			19/10	2.2.3Design stresses in welds.		
20			20/10	2.2.4Strength of welded joints.		
21			21/10	continue		
22			22/10	CONTINUE		
23			26/10	CONTINUE		
24			27/10	CONTINUE		
25	CH-3		28/10	3.1Common shapes of tension members.	10	07
26			31/10	.3.2Maximum values of effective slenderness ratio.		
27		nov	02/11	3.3analysis andDesign strength of tension members, yielding of gross cross section, rupture of critical section and the concept of block shear		
28			03/11	CONTINUE		
29			04/11	CONTINUE		
30			05/11	CONTINUE		
31			07/11	Continue		
32	CH-4		09/11	.Common shapes of compression members.	10	04
33			10/11	Bulking class of cross sections and slenderness ratio		
34			11/11	Design compressive stress and strength of compression members		
35			12/11	Analysis and Design of compression members (axial load only)		
36	CH-5		21/11	5.design of steel beams	10	05
37			23/11	5.1-common cross section and classification.		
38			24/11	5.2Deflection limits, web buckling and web crippling.		
39			25/11	5.3Design of laterally supported beams		



			against bending and shear					
40	CH-6		26/11	6.design of tubular section	06	08		
41			28/11	6.1 Round tubular sections, permissible stresses				
42			30/11	6.2 Tube columns and compression members, crinkling. Tube tension members and tubular roof trusses.				
43		dec	01/12	6.3 Joints in tubular trusses ,				
44			02/12	CONTINUE				
45			03/12	CONTINUE				
46			05/12	CONTINUE				
47			07/12	CONTINUE				
48	ch-07		08/12	7.1 Design consideration for masonry walls			09	08
49			09/12	(a) Load bearing wall and non load bearing wall -Permissible stresses, Slenderness ratio,				
50			10/12	Effective length Effective height, Effective thickness				
51			12/12	continue				
52			14/12	continue				
53			15/12	continue				
54			16/12	CONTINUE				
55			17/12	CONTINUE				

**Brief Summary of the Plan**

SL NO	MONTH	UNITS/CHAPTER TO BE COVERED	% OF COVERAGE
1	sep	Ch-1,CH-2	10%
2	oct	Ch-2,CH-3	30%
3	nov	CH-3 ,CH-4.CH-5,CH-6	40%
4	dec	CH-6,CH-7	20%

  
 Signature of the Faculty  
 Date 14.09.22

Signature of the Principal  
 Date