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	1.1Common steel structures, Advantages & disadvantages of steel structures	05	08
2			16/09	1.2Types of steel, properties of structural steel		
3			19/09	1.3Rolled steel sections, special considerations in steel design		
4			21/09	1.4Loads and load combinations		
5			22/09	1.5Structural analysis and design philosophy.		
6			23/09	1.6Brief review of Principles of Limit State design.		
7			24/09	CONTINUE		
8			26/09	CONTINUE		
9	CH-2		28/09	2.1Bolted connection,2.1.1Classification of bolts, advantages and disadvantages of bolted connections2.1.2.Different terminology, spacing and edge distance of bolt holes.	10	16
10			29/09	2.1.3Types of bolted connections.2.1.4.Types of action of fasteners, assumptions and principles of design.		
11			30/09	2.1.5Strength of plates in a joint, strength of bearing type bolts (shear capacity& bearing capacity), reduction factors, and shear capacity of HSFG bolts		
12		oct	01/10	2.1.6Analysis & 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	6.1Round tubular sections, permissible stresses		
42			30/11	6.2Tube 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	7.1Design 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