

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF CIVIL ENGINEERING



LESSON PLAN

SUBJECT: STRUCTURAL DESIGN-II (TH 2)

FACULTY: IPSITA THAKUR

ACCADEMIC SESSION: 2023-24

SEMESTER: 5th

SEC: B

Sd/-
H O D (Civil Engg.)

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Discipline: Civil Engineering	Semester: 5th (B)		Name of the teaching faculty: IPSITA THAKUR
Subject: STRUCTURAL DESIGN -II	No. of Days/ per week class allotted: 04 periods per week. (Tue, Wed, Fri ,sat– 1 period each)		Semester From Date: 01/08/2023 To Date: 30-11-2023 No. of weeks: 17 weeks
Week	Class Day	No of period available	Theory Topics
1ST	01/08/23	1	1.1 Common steel Structures, advantages and disadvantages of steel structure.
	02/08/23		
	04/08/23		
	05/08/23		
2ND	08/08/23	1	1.2 Type of steel, properties of structural steel.
	09/08/23	1	1.3 Rolled steel sections, special consideration in steel design.
	11/08/23	1	1.4 Load and its combinations 1.5 Structural analysis and design philosophy
	12/08/23	1	1.6 Brief review of principle of limit state design.
3RD	16/08/23	1	2.1 Bolted connections.
	18/08/23	1	2.1.1 Classification of bolts, advantages and disadvantages of bolted connection
	19/08/23	1	2.1.2 Different terminology, spacing and edge distance of bolt holes.
4TH	22/08/23	1	assumptions and principle of design
	23/08/23	1	2.1.3 types of bolted connections 2.1.4 Types of action of fasteners, assumptions and principle of design 2.1.5 strength of plates in a joint, strength of bearing type of bolts, reduction factors and shear capacity of HSFG bolts
	25/08/23	1	2.1.6 Analysis and design of joint using bearing type2.1.7

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			Efficiency of a joint
	26/08/23	1	2.2.1 Welded connections and its advantages and disadvantages. 2.2.2 Types of welded joints and specification of welding.
5TH	28/08/23	1	2.2.3 Design Stress in welds. 2.2.4 Strength in welded joints.
	01/09/23	1	Problems related to bolted and welded connections.
	02/09/23	1	Monthly Class test
6TH	05/09/23	1	3.2 maximum values of effective slenderness ratio.
	08/09/23	1	3.4 analysis and design of tension members
	09/09/23	1	Problems on tension member
7TH	12/09/23	1	. 4.1 common shapes of compression members
	13/09/23	1	4.2 buckling class of cross sections, slenderness ratio
	15/09/23	1	. 4.3 design compressive stress and strength of compression members
	16/09/23	1	4.4 analysis and design of compression members (axial load only).
8TH	22/09/23	1	5.1 Common cross sections and their classifications of steel beams 5.2 deflection limits, web buckling and web crippling
9TH	26/09/23	1	Doubt clearing classes
	27/09/23	1	Internal Assessment
	30/09/23	1	5.3 design of laterally supported beams against bending and shear
10TH	03/10/23	1	problem solving classes
	04/10/23	1	6.1 round tubular sections , permissible stresses
	06/10/23	1	6.2 tubular compression and tension members
	07/10/23	1	6.3 joints in tubular trusses
11TH	10/10/23	1	Problem solving classes
	11/10/23	1	Problem solving classes
	13/10/23	1	Monthly class test-2

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	14/10/23	1	7.1 design considerations of masonry walls.
12TH	17/10/23	1	7.1 Design considerations of columns
	18/10/23	1	7.2 load bearing walls
	20/10/23	1	7.2 load non bearing walls 7.3 slenderness ratio, effective length, height and thickness
13TH	31/10/23	1	Analysis on masonry wall problems
	01/11/23	1	Analysis on masonry wall problems
	03/11/23	1	Revision class
	04/11/23	1	Monthly class test-3
14TH	07/11/23	1	Previous year question discussion
	08/11/23	1	Previous year question discussion
	10/11/23	1	Previous year question discussion
	11/11/23	1	Discussion
15 TH	14/11/23	1	Previous year question discussion
	15/11/23	1	Previous year question discussion
	17/11/23	1	Previous year question discussion
	18/11/23	1	Discussion
16TH	21/11/23	1	Previous year question discussion
	22/11/23	1	Previous year question discussion
	24/11/23	1	Previous year question discussion
	25/11/23	1	Discussion

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17TH	28/11/23	1	Previous year question discussion
	29/11/23	1	Previous year question discussion