LESSON PLAN

Academic Session :- 2021-2022

Discipline: Civil.Engineering				**Name of teaching faculty: Swagatika Dani**	
Subject: Structural Design-II(Th.2)				**Semester from Date:01/10/2021 to 08/01/2022**	
Semester: 5th				**No. of weeks: 14**	**4P/week**
No. of Days/ week class allotted: 04 period per week(Monday 2periods, Tuesday and Saturday 1 period each)					**Total period: 60**
MONTH	**Week**	**DATE**	**DAYS/PERIOD**	**Syllabus to be covered**	**NO. OF PERIODS AVAILABLE**
				CHAPTER-1- Introduction (5P)	
OCTOBER		04/10/2021	Monday	1.1.Common steel structures, Advantages and disadvantages of steel structures; Types of steel, properties of structural steel	1
		04/10/2021	Monday	1.2.Rolled steel sections, special considerations in steel design	1
		05/10/2021	Tuesday	1.3.Loads and load combinations	1
	2ND	09/10/2021	Saturday	1.4.Structural analysis and design philosophy	1
	3RD	23/10/2021	Saturday	1.5.Brief review of Principles of Limit State design	1
				CHAPTER-2-Structural Steel Fasteners and connections(10P)	
				2.1.Bolted Connection	
		25/10/2021	Monday	2.1.1.Classification of bolts, advantages and disadvantages of bolted connections	1
		25/10/2021	Monday	2.1.2. Different terminology, Spacing and edge distance of bolt holes	1
		26/10/2021	Tuesday	2.1.3.Types of bolted connections.	1
	4TH	30/10/2021	Saturday	2.1.4.Types of action of fasteners, assumptions and principles of design	1
NOVE		01/11/2021	Monday	2.1.5.Strength of plates in a joint, strength of bearing type bolts(shear capacity and bearing capacity), reduction factors, and shear capacity of HSFG bolts	1
		01/11/2021	Monday	2.1.6.Analysis and design of joints using bearing type and HSFG bolts(expert eccentric load and prying forces)	1
		02/11/2021	Tuesday	2.1.7.Efficiency of a joint	1
				2.2.Welded connections:	
	1ST	06/11/2021	Saturday	2.2.1. Advantages and Disadvantagew of welded connection	1
		08/11/2021	Monday	2.2.2.Types of welded joints and specifications for welding	1
		08/11/2021	Monday	2.2.3.Design stresses in welds, strength of welded joints	1
		09/11/2021	Tuesday	Class test	1
				CHAPTER-3-Design of Steel tension Members(10P)	

M	2ND	13/11/2021	Saturday	3.1 .Common shapes of tension members.	1
B		15/11/2021	Monday	3.2.Common shapes of tension members	1
E		15/11/2021	Monday	3.3.Maximum values of effective slenderness ratio	1
R		16/11/2021	Tuesday	3.4.Maximum values of effective slenderness ratio	1
	3RD	20/11/2021	Saturday	3.5.Analysis of tension member	1
		22/11/2021	Monday	3.6.Analysis of tension member	1
		22/11/2021	Monday	3.7.Design of tension members	1
		23/11/2021	Tuesday	3.8.Design of tension members	1
	4TH	27/11/2021	Saturday	3.8.Design considering strength only	1
		29/11/2021	Monday	3.9.Design considering concept of block shear failure	1
		29/11/2021	Monday	3.10.Design considering concept of block shear failure	1
				CHAPTER-4-Design of steel compression members.	
	5TH	30/11/2021	Tuesday	4.1.common shapes of compression members	1
	1ST	04/12/2021	Saturday	4.2.Bulking class of section	
		06/12/2021	Monday	4.3.Slenderness ratio	1
		06/12/2021	Monday	4.4.Design of compressive stress	1
		07/12/2021	Tuesday	4.5.Design of compressive stress	1
	2ND	11/12/2021	Saturday	4.6.Design strength of compression members	1
		13/12/2021	Monday	4.7.Design strength of compression member	1
D		14/12/2021	Tuesday	4.8.Analysis of compression member	1
E	3RD	18/12/20	Saturday	4.9.Design of compression members	1
C		20/12/2021	Monday	4.10.Design of compression members	1
E				**5.CHAPTER-5-Design of steel beams(10P)**	
M		20/12/2021	Monday	5.1.common cross sections	1
B		20/12/2021	Monday	5.2.Classification of steel cross section	1
E	4TH	21/12/2021	Tuesday	5.3.Classification of steel cross section	1
R		27/12/2021	Monday	5.4.Deflection limits	1
		27/12/2021	Monday	5.5.Web buckling	1
	5TH	28/12/2021	Tuesday	5.6.web crippling	1
J	1ST	01/01/2022	Saturday	5.7.Design of laterally supported beam against bending	1
A		03/01/2022	Monday	5.8. Design of laterally supported beam against bending	1
N		03/01/2022	Monday	5.9.Design of laterally supported beam against shear	1
U		04/01/2022	Tuesday	5.10.Design of laterally supported beam against shear	1
A				**CHAPTER-6-Design of Tubular steel structure(6P)**	
R	2ND	08/01/2022	Tuesday	6.1.Round tubular sections	1
Y				6.2.permissible stresses	1
				6.3.Permissible stresses	1

		E		6.4.Tubular compression members	1
		X		6.5. Tubular tension members	1
		T		6.6.Joints in Tubular trusses	1
		R		**CHAPTER-7-Design of Masonry structures (9P)**	
		A		7.1.Design consideration of masonry walls	1
				7.2.Design consideration of masonry walls	1
		C		7.3.Design consideration of masonry columns	1
		L		7.4.Design consideration of masonry columns	1
		A		7.5. Load bearing and non-load bearing walls	1
		S		7.6. Permissible stresses	1
		S		7.7.Slenderness ratio	1
		E		7.8.Effective length	1
		S		7.9.Effective height and effective thickness	1