

		LESSON PLAN			
Academic Session :- 2023-2024					
Discipline: Civil.Engineering				Name of teaching faculty: Swagatika Dani	
Subject: Structural Design-II(Th.2)				Semester from Date:01/08/2023 to 30/11/2023	
Semester: 5th				No. of weeks: 14	4P/week
No. of Days/ week class allotted: 04 period per week(MONDAY, TUESDAY, THURSDAY, FRIDAY) One class each day					Total period: 60
MONTH	Week	DATE	DAYS/PERIOD	Syllabus to be covered	NO. OF PERIODS AVAILABLE
				CHAPTER-1- Introduction (5P)	5
	1ST	01/08/2023	Tuesday	1.1.Common steel structures, Advantages and disadvantages of steel structures; Types of steel, properties of structural steel	1
		03/08/2023	Thursday	1.2.Rolled steel sections, special considerations in steel design	1
		04/08/2023	Friday	1.3.Loads and load combinations	1
		07/08/2023	Monday	1.4.Structural analysis and design philosophy	1
		08/08/2023	Tuesday	1.5.Brief review of Principles of Limit State design	1
				CHAPTER-2-Structural Steel Fasteners and connections(10P)	10
				2.1.Bolted Connection	
		10/08/2023	Thursday	2.1.1.Classification of bolts, advantages and disadvantages of bolted connections	1

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2ND	11/08/2023	Friday	2.1.2. Different terminology, Spacing and edge distance of bolt holes	1
3RD	14/08/2023	Monday	2.1.3.Types of bolted connections.	1
	17/08/2023	Thursday	2.1.4.Types of action of fasteners, assumptions and principles of design	1
	18/08/2023	Friday	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
	21/08/2023	Monday	2.1.6.Analysis and design of joints using bearing type and HSFG bolts(expert eccentric load and prying forces)	1
4TH	22/08/2023	Tuesday	2.1.7.Efficiency of a joint	1
			2.2.Welded connections:	
	24/08/2023	Thursday	2.2.1. Advantages and Disadvantages of welded connection	1
	25/08/2023	Friday	2.2.2.Types of welded joints and specifications for welding	1
5TH	28/08/2023	Monday	2.2.3.Design stresses in welds, strength of welded joints	1
	29/08/2023	Tuesday	Class test	1
			CHAPTER-3-Design of Steel tension Members(10P)	10
	31/08/2023	Thursday	3.1 .Common shapes of tension members.	1

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	1ST	01/09/2023	Friday	3.2.Common shapes of tension members	1
		04/09/2023	Monday	3.3.Maximum values of effective slenderness ratio	1
		05/09/2023	Tuesday	3.4.Maximum values of effective slenderness ratio	1
		07/09/2023	Thursday	3.5.Analysis of tension member	1
					1
	2ND	08/09/2023	Friday	3.6.Analysis of tension member	1
		11/09/2023	Monday	3.7.Design of tension members	1
		12/09/2023	Tuesday	3.8.Design of tension members	1
		14/09/2023	Thursday	3.8.Design considering strength only	1
		15/09/2023	Friday	3.9.Design considering concept of block shear failure	1
		18/09/2023	Monday	3.10.Design considering concept of block shear failure	1
				CHAPTER-4-Design of steel compression members.(10P)	10
		21/09/2023	Thursday	4.1.common shapes of compression members	1
		04/12/2021	Saturday	4.2.Buckling class of cross sections	1
					1
	4TH	22/09/2023	Friday	4.2.Bulking class of section	

O C T O B E R	5TH	25/09/2023	Monday	4.3.Slenderness ratio	1
		26/09/2023	Tuesday	4.4.Design of compressive stress	1
		28/09/2023	Thursday	4.5.Design of compressive stress	1
	1ST	03/10/2023	Tuesday	4.6.Design strength of compression members	1
		05/10/2023	Thursday	4.7.Design strength of compression member	1
		06/10/2023	Friday	4.8.Analysis of compression member	1
		09/10/2023			1
	2ND		09/10/2023	4.9.Design of compression members	1
		10/10/2023	Tuesday	4.10.Design of compression members	1
		5.CHAPTER-5-Design of steel beams(10P)			10
		12/10/2023	Thursday	5.1.common cross sections	1
				5.2.Classification of steel cross section	1
		13/10/2023	Friday		
		16/10/2023	Monday	5.3.Classification of steel cross section	1
		17/10/2023	Tuesday	5.4.Deflection limits	1
		19/10/2023	Thursday	5.5.Web buckling	1

O C T O B E R	3RD	20/10/2023	Friday	5.6.web crippling	1
		21/10/2023	Saturday		
		22/10/2023	Sunday		
		23/10/2023	Monday	5.7.Design of laterally supported beam against bending	1
	4TH	24/10/2023	Tuesday	5.8. Design of laterally supported beam against bending	1
		25/10/2023	Wednesday		
		26/10/2023	Thursday		
	5TH	27/10/2023	Friday		
		28/10/2023	Saturday		
		29/10/2023	Sunday		
N O V E M B E R	1ST	01/11/2023	Monday	5.9.Design of laterally supported beam against shear	1
		02/11/2023	Tuesday		
		03/11/2023	Wednesday	5.10.Design of laterally supported beam against shear	1
		04/11/2023	Thursday		
	2ND	05/11/2023	Friday	CHAPTER-6-Design of Tubular steel structure(6P)	6
		06/11/2023	Saturday		
		06/11/2023	Monday	6.1.Round tubular sections	1
		07/11/2023	Tuesday		
		07/11/2023	Wednesday	6.2.permissible stresses	1
		08/11/2023	Thursday		
		09/11/2023	Friday	6.3.Permissible stresses	1
	3RD	10/11/2023	Saturday		
		10/11/2023	Monday	6.4.Tubular compression members	1
		11/11/2023	Tuesday		
		12/11/2023	Wednesday	6.5. Tubular tension members	1
		13/11/2023	Thursday		
		14/11/2023	Friday	6.6.Joints in Tubular trusses	1
		15/11/2023	Saturday		
D I C E M B E R	1ST	16/11/2023	Sunday	CHAPTER-7-Design of Masonry structures (9P)	9
		17/11/2023	Monday		
F E B R U A R Y	2ND	18/11/2023	Tuesday		
		19/11/2023	Wednesday	7.1.Design consideration of masonry walls	1

		20/11/2023	Monday	7.2.Design consideration of masonry walls	1
		21/11/2023	Tuesday	7.3.Design consideration of masonry columns	1
		23/11/2023	Thursday	7.4.Design consideration of masonry columns	1
		24/11/2023	Friday	7.5. Load bearing and non-load bearing walls	1
	4TH				
		28/11/2023	Tuesday	7.6. Permissible stresses	1
		30/11/2023	Thursday	7.7.Slenderness ratio	1
	5TH				
				7.8.Effective length	1
		EXTRA CLASSES		7.9.Effective height and effective thickness	1