

LESSON PLAN.				
ACADEMIC SESSION :-2021 (W)				
Subject :- STRUCTURAL DESIGN - II , TH-2				
Teacher :- SIMADRI KUMAR BAL			Total Period :- 60 per Sem	
Theory :- 4P/week				
SEMESTER:-5th (2ND Shift)				
MONTH	DATE	DAYS	SYLLABUS TO BE COVERED	NO.OF PERIODS AVAILABLE
			Chapter-1 Introduction (5p)	
OCTOBER	10/26/2021	Tuesday	1.1 Common steel structures, Advantages & disadvantages of steel structures.	1
	10/28/2021	Thursday	1.2 Types of steel, properties of structural steel.	1
	10/30/2021	Saturday	1.3 Rolled steel sections, special considerations in steel design	1
	11/1/2021	Monday	1.4 Loads and load combinations.	1
	11/2/2021	Tuesday	1.5 Structural analysis and design philosophy 1.6 Brief review of Principles of Limit State design.	1
			Chapter-2 Structural steel fasteners and connections (10P)	
NOVEMBER	11/6/2021	Saturday	2.1 Bolted connection 2.1.1 Classification of bolts, advantages & disadvantages of bolted connection	1
	11/8/2021	Monday	2.1.2 Different terminology, spacing and edge distance of bolt holes.	1
	11/9/2021	Tuesday	2.1.3 Types of bolted connections.	1
	11/11/2021	Thursday	2.1.4 Types of action of fasteners, assumptions and principles of design.	1
	11/15/2021	Monday	2.1.5 Strength of plates in a joint, strength of bearing type bolts (shear capacity& bearing capacity), reduction factors, and shear capacity of HSG bolts.	1
	11/16/2021	Tuesday	2.1.6 Analysis & design of Joints using bearing type and HSG bolts (except eccentric load and prying forces)	1
	11/18/2021	Thursday	2.1.7 Efficiency of a joint.	1
	11/20/2021	Saturday	2.2 Welded Connections: 2.2.1 Advantages and Disadvantages of welded connection. 2.2.2 Types of welded joints and specifications for welding	1
	11/22/2021	Monday	2.2.3 Design stresses in welds.	1
	11/23/2021	Tuesday	2.2.4 Strength of welded joints.	1

			3.0 Design of steel tension member (10P)	
	11/25/2021	Thursday	3.1 Common shapes of tension members.	1
	11/29/2021	Monday	3.2 Maximum value of effective slenderness ratio	1
	11/30/2021	Tuesday	Problem practice	1
DECEMBER	12/2/2021	Thursday	3.4 Analysis and Design of tension members.	1
	12/4/2021	Saturday	Yielding of gross cross section	1
	12/6/2021	Monday	Rupture of critical section and the concept of block shear	1
	12/7/2021	Tuesday	Problem Practice	1
	12/9/2021	Thursday	Problem practice	1
	12/13/2021	Monday	Problem practice	1
	12/14/2021	Tuesday	Design problem practice	1
		Saturday	4.0 SLOPE AND DEFLECTION (10P)	
	12/16/2021	Thursday	4.1 Common shapes of compression members.	1
	12/18/2021	Saturday	4.2 Bulking class of cross sections	1
	12/20/2021	Monday	Slenderness ratio, Problems.	1
	12/21/2021	Tuesday	4.3 Design compressive stress	1
	12/23/2021	Thursday	Strength of compression members	1
	12/27/2021	Monday	Problem practice	1
12/28/2021	Tuesday	4.4 Analysis and Design of compression member	1	
12/30/2021	Thursday	Problem practice	1	
JANUARY	1/1/2022	Saturday	Problem practice	1
	1/3/2022	Monday	Problem practice	1
			5.0 DESIGN OF STEEL BEAMS (10P)	
	1/4/2022	Tuesday	5.1 Common cross sections and their classification.	1
	1/6/2022	Thursday	Plastic moment capacity of sections, Moment capacity and shear resistance	1
	1/8/2022	Saturday	5.2 Deflection limits,	1
22 More classes required				
			Web buckling and web crippling.	1
			Problem practice	1
			Problem practice	1
			5.3 Design of laterally supported beams against bending and shear.	1
			Problem practice	1
			Problem practice	1
			Problem practice	1
			6.0 DESIGN OF TUBULAR STEEL STRUCTURES (6P)	
			6.1 Round tubular sections,	1
			permissible stresses.	1
			6.2 Tubular Compression & Tension Members	1
			6.3 Joints in Tubular trusses	1
			Problem practice	1
			Problem practice	1
			7.0 DESIGN OF MASONRY STRUCTURES:(9P)	

		7.1 Design consideration for masonry walls	1
		(a) Load bearing walls -Permissible stresses,	1
		Slenderness ratio, Effective length, Effective height,	1
		Effective thickness,	1
		(b) Non-Load bearing walls	1
		7.2 Design consideration for masonry columns	1
		Problem practice	1
		Problem practice	1
		Problem practice	1

