

LESSON PLAN.

W.E.F:- 01/08/2023

Subject :-STRENGTH OF MATERIAL , Subject code - Th-2

Total Period :- 60 per Sem

Teacher :- SUBHASINI MUDULI (PTGF, MECHANICAL ENGINEERING DEPT.)

Theory :- 4p/week

SEMESTER:-3rd

SL NO	MONTH	Week	DATE	UNIT NO/PERIOD ALLOTTED	Syllabus to be covered	Syllabus actually covered	Short fall	Signature
1	AUG	1ST	02-08-2023	10	1) - SIMPLE STRESS AND STRAIN - INTRODUCTION.,Types of load , Define stress and strain,Stress and Strain diagram for ductile and brittle material			
2			02-08-2023		Types of stress and strain , Hooke's law,Define young's modulus , modulus of rigidity , Bulkmodulus ,Define poisson's ratio and derieve relation between young's modulus,modulus of rigidity,bulk modulus and poisson's ratio			
3			04-08-2023		Derive the relation between three elastic constant			
4			07-08-2023		Derive the relation between three elastic constant			
5		2ND	09-08-2023		principle of super position ,stress in composite section			
6			09-08-2023		principle of super position ,stress in composite section			
7			11-08-2023		problems related superposition,Temperature stress and derieve the deformation and strain due to it			
8			14-08-2023		etermine the temperature stress in composite bar			
9			16-08-2023		Define strain energy and Resilience and Establish the formulae associated with it,			
10			3RD		16-08-2023	Determine stress due to gradually applied load , suddenly applied load and impact load		
11		4TH	18-08-2023	8	2) THIN CYLINDER AND SPHERICAL SHELL UNDER INTERNAL PRESSURE - Definition of hoop and longitudinal stress, strain			
12			21-08-2023		Derieve Hoop stress and Longitudinal stress for thin cylinder			
13			23-08-2023		Derieve Hoop stress and Longitudinal stress for thin cylinder			
14			23-08-2023		Derieve Hoop strain, Longitudinal strain and Volumetric strain,Numericals on thin cylinder and spherical shell under internal pressure			
15			25-08-2023		Computation of change in length , diameter and volume for thin cylinder			
16			5TH		28-08-2023	Computation of change in length , diameter and volume for thin cylinder		
17	1ST	01-09-2023	Numericals on thin cylinder and spherical shell under internal pressure					
18	2ND	04-09-2023	Numericals on thin cylinder and spherical shell under internal					
19		08-09-2023	10	3) Two dimensional stress systems -Determination of normal				
20	3RD	11-09-2023		Location of principal plane				
21		13-09-2023		Location of principal plane				
22		13-09-2023		Location of principal plane				
23		15-09-2023		computation of principal stress				
24	4TH	18-09-2023		computation of principal stress				
25		22-09-2023		Location of principal plane and computation of principal stress				
26		25-09-2023		Location of principal plane and computation of principal stress				

27	OCT	5TH	27-09-2023	computation of principal stress and Maximum shear stress using Mohr's circle			
28			27-09-2023	Maximum shear stress using Mohr's circle			
29	OCT	1ST	04-10-2023	4) Bending moment & shear force -Types of beam and load			
30			04-10-2023	bending moment			
31			06-10-2023	bending moment			
32		2ND	09-10-2023	Shear Force and Bending moment diagram and its salient			
33			11-10-2023	Shear Force and Bending moment diagram and its salient			
34			11-10-2023	10 Shear Force and Bending moment diagram and its salient			
35			13-10-2023	simply supported beam			
36		3RD	16-10-2023	over hanging beam under point load and uniformly distributed load			
37			18-10-2023	over hanging beam under point load and uniformly distributed load			
38			18-10-2023	over hanging beam under point load and uniformly distributed			
39	OCT	4TH	20-10-2023	5) Theory of simple bending			
40			23-10-2023	5) Theory of simple bending			
41			25-10-2023	5) Theory of simple bending			
42			25-10-2023	Bending equation, Moment of resistance			
43			27-10-2023	10 Bending equation, Moment of resistance			
44			30-10-2023	5TH section modulus			
45	NOV	1ST	01-11-2023	neutral axis.			
46			01-11-2023	simple problems.			
47			03-11-2023	simple problems.			
48			06-11-2023	simple problems.			
49		2ND	08-11-2023	6) Combined direct & bending stresses- Define column			
50			08-11-2023	6) Combined direct & bending stresses- Define column			
51			10-11-2023	6 Axial load, Eccentric load on column,			
52		3RD	13-11-2023	6 Direct stresses, Bending stresses, Maximum & Minimum			
53			15-11-2023	Buckling load computation using Euler's formula (no derivation)			
54		15-11-2023	Buckling load computation using Euler's formula (no derivation)				
55	4TH	17-11-2023	7) Torsion -. Assumption of pure torsion				
56		20-11-2023	The torsion equation for solid shaft				
57		22-11-2023	6 The torsion equation hollow circular shaft				
58		22-11-2023	6 Comparison between solid and hollow shaft subjected to pure				
59	5TH	24-11-2023	Revision				
60		29-11-2023	Revision				

Subhasini Modali