

Department of Civil Engineering

I M.Tech I SEM, Theory of Elasticity And Plasticity (2015-16)

LESSON PLAN

Faculty name: Ch Chandra Mouli

Period	Date	Topic	Unit No	Teaching Methodology	Cumulative Periods
1,2	12-10-2015	Introduction on Elasticity and Plasticity and its basics	I	CR	2
1,2	13-10-2015	Notation for forces and stresses & components of stresses	I	CR	4
1,2	19-10-2015	Components of strain- Hooke's law	I	CR	6
1,2	26-10-2015	Plane stress and plane strain analysis	I	CR	8
1,2	27-10-2015	Plane stress and plane strain, Stress at point & strain at point	I	CR	10
1,2	02-11-2015	Differential equation of equilibrium and boundary conditions	I	CR	12
1,2	03-11-2015	Compatibility equation boundary conditions and stress function	I	CR	14
1,2	09-11-2015	Two – Dimensional problems in rectangular coordinates – solution by polynomials	II	CR	16
1,2	10-11-2015	Saint-venant's principle	II	CR	18
1,2	16-11-2015	Determination of displacements, bending of simple beams, application of fourier series for two dimensional problems for gravity loading	II	CR	20
1,2	17-11-2015	Two – Dimentional problems in polar coordinates general equation in polar coordinates	III	CR	22
1,2	23-11-2015	Strain components in polar coordinates-displacements for symmetrical stress distribution	III	CR	24
1,2	24-11-2015	Circular discs-stress on plates with circular holes	III	CR	26
1,2	30-11-2015	Analysis of stress and strain in three dimensional principle stress – strain ellipsoid and stree director surface	IV	CR	28
1,2	07-12-2015	Determination of principal stress maximum shear stress	IV	CR	30
1,2	08-12-2015	Homogenous deformation principle axes of strain	IV	CR	32

1,2	14-12-2015	Torsion of prismatical bars	IV	CR	34
1,2	15-12-2015	Bars with elliptical cross section	IV	CR	36
1,2	21-12-2015	Other elementary solution membranes analogy	IV	CR	38
1,2	22-12-2015	Torsion of rectangular Bars	IV	CR	40
1,2	28-12-2015	Theory of plasticity introduction	V	CR	42
1,2	29-12-2015	Concepts of Plasticity	V	CR	44
1,2	05-01-2016	Assumptions of plasticity	V	CR	46
1,2	06-01-2016	Revision of unit-1,2	VI	CR	48
1,2	19-01-2016	Revision of unit-3,4	VI	CR	50
1,2	20-01-2016	Revision of unit-5	VI	CR	52

NOTE: C.R - Class Room Teaching

Signature