



# MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY

FRM-001/00QSP-004

## TENTATIVE TEACHING PLAN

Dec.01.2001

**DEPARTMENT/INSTITUTE/DIRECTORATE: CIVIL ENGINEERING**

Name of Teacher: **Dr. Muhammad Rehan** Batch: **22CE (A+B+D)** Year: **3<sup>rd</sup>** Semester:

Subject: **Mechanics of Solids-I**

Course Code: **CE 212**

Semester Starting Date: **20-11-2023**

Semester Suspension Date: **29-03-2024**

### **Course Learning Outcomes (CLOs):**

Upon successful completion of the course, the student will be able to:

CLO No.	Description	Taxonomy level	Associated PLO
1	SOLVE problems related to simple stress and strain in members subjected to linear.	C3	1
2	ANALYZE simple beams subjected to simple bending loads and explain torsion and energy theory.	C4	2

Sr. #	Description of Topic	CLO's	No. of Lec. Req.
1.	Introduction to the subject, Course outline, Reference books	1	1
2.	Stress, strain and Hooks Law	1	1
3.	Deformation of a body due to force acting on it	1	2
4.	Deformation of a body due to self weight	1	1
5.	Principle of superposition	1	2
6.	Deformation in the bars of different sections	1	1
7.	Stresses & strains in statically indeterminate structures	1	2
8.	Thermal stress in simple and composite bars	1	2
9.	Modulus of Elasticity, Poisson's Ratio, Bulk Modulus	1	1
10.	Relationship b/w bulk modulus & young's modulus	1	1
11.	Shear modulus, Relationship b/w young's modulus & shear modulus	1	2
112.	Centre of gravity	2	1
15.	Moment of Inertia	2	1
16.	Moment of inertia of different sections	2	3
17.	Moment of inertia of composite sections, Product of Inertia	2	2
19.	Bending stress and determination of flexural formula	2	2
21.	Strain energy stored in a body due to gradual, sudden and impact loads	2	2
22.	Strain energy stored in a body of varying section	2	2
23.	Theory of torsion of solids	2	2
24.	Torsion of circular shafts	2	1
	<b>Total Lectures</b>		<b>32</b>

Signature of Teacher:

Dated: 13-12-2023

Remarks of DMRC: **APPROVED**

Signature of Chairman:

Dated: 21/12/2023