MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY

FRM-001/00QSP-004
Dec. 01, 2001

TENTATIVE TEACHING PLAN (THEORY)

Department: **CIVIL ENGINEERING**
Name of Teacher: **Engr. Fahad Ali Shaikh**
Subject: **Steel Structures** Course Code**: CE316** Batch: **21CE(A+B+D)** Year: **3rd** Semester: **2nd**
Semester Starting Date**: 15-07-2024** Semester Suspension Date: **06-11-2024**

Course Learning Outcomes:

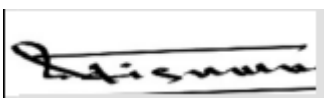
After Completing the "Steel Structures" course, each student will be able to:

CLO No.	Description	Taxonomy level	Linking to PLO
1	DISCUSS the properties of steel and basic concepts related to design of steel structures along with design loads.	C2	1
2	ANALYZE and design main structural members and connection of steel structures.	C4	3

S. #	Topic	CLOs	No. of Lectures (Hrs.) Required
1	Introduction, properties of steel and stress-strain diagram	1	1
3	Advantages and disadvantages of Steel Structures as compared to R.C.C & Timber	1	2
4	Various steel sections used in design of steel structures. Use of Steel Table	1	1
5	Basic concepts related to design methods used in steel structures (ASD versus LRFD)	1	2
6	AISC manual and design specifications	1	1
7	Consideration of gravity dead, live load and environmental loads in design	1	1
8	Introduction to lateral loads (wind and earthquake load)	1	1
9	Calculation of earthquake load for high rise structures	1	2
10	Design loads on bridges and Load factors considered in LRFD method	1	2
13	Design procedure for beams	2	1
14	Design of beams with different loading conditions	2	4
15	Design of beams with additional flange plates	2	3
16	Web buckling and web crippling in steel beams	2	2
17	Importance of plate girder	2	2
18	Design of plate girder	2	4
19	Significance of stiffeners in plate girder design	2	1
20	Euler's column theory, slenderness ratio, effective length, buckling of columns	2	2
21	Design procedure for column	2	1
22	Design of column using different steel sections	2	4
23	Types and strength of steel connections, significance and design of steel connection	2	4
24	Design of purlin	2	2
25	Significance of truss design in steel structures and design of tension member	2	3
26	Fabrication and erection methods involved in steel structure construction	2	2
	Total Lecture hrs.		**48**

Signature of Teacher  Dated: 15-07-24

Remarks by DMRC: **APPROVED**

Signature of Chairman:  Dated:18/09/2024