



MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY

FRM-001/00QSP-004

TENTATIVE TEACHING PLAN

Dec.01.2001

DEPARTMENT/INSTITUTE/DIRECTORATE: CIVIL ENGINEERING

Name of Teacher: **Prof. Dr. Fareed Ahmed Memon** Batch: **21CE(A+C)** Year: **3rd** Semester: **6th**

Subject: **Reinforced and Prestressed Concrete** Course Code: **CE336**

Semester Starting Date: **15-07-2024**

Semester Suspension Date: **06-11-2024**

Course Learning Outcomes (CLOs):

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

CLO No.	Description	Taxonomy level	Associated PLO
1	DISCUSS various reinforced and pre-stressed concrete members	C2	1
2	ANALYZE and design various reinforced and pre-stressed concrete members	C6	3

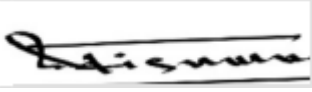
Sr. #	Description of Topic	CLO's	No. of Lec. Req.
1.	Doubly reinforced concrete beams	1	1
2.	Analysis and design of simply supported doubly reinforced concrete beams	1	3
3.	Shear in reinforced concrete beams	1	1
4.	Design of shear reinforcement for simply supported beams	1	3
5.	Column, types of columns, design considerations	1	2
6.	Analysis and design of short columns	1	3
7.	Footing, types of footing, design considerations	1	1
8.	Design of isolated square & rectangular footings	1	3
9.	Design of combined & strap footings	1	3
10.	Design of raft/mat footing	1	3
11.	Two-way slabs, types of two way slabs, design considerations	1	2
12.	Staircase, types of staircases, design considerations	1	1
13.	Design of staircases	1	3
14.	Prestressed concrete, Basic concept of prestressed concrete	2	1
15.	Advantages and applications of prestressed concrete	2	1
16.	Classification and methods of prestressing	2	1
17.	Properties and importance of high strength materials used in prestressed concrete	2	1
18.	Analysis of prestressed concrete members, Basic assumptions	2	1
19.	Analysis of prestressed concrete members based on stress concept	2	3
20.	Concept of Load balancing, Analysis of prestressed concrete members based on load balancing concept	2	3
21.	Loss of Prestress, Types of prestress losses	2	2
22.	Lump sum and detailed estimation of prestress losses	2	3
23.	Design of prestressed concrete members for flexure and shear	2	3
	Total Lectures		48


Signature of Teacher:

Dated: 12-09-2024

Remarks of DMRC: APPROVED

Signature of Chairman:

A handwritten signature in black ink, appearing to read "S. S. S.", enclosed within a thin black rectangular border.

Dated: 18-09-2024