



MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY

FRM-001/00QSP-004

TENTATIVE TEACHING PLAN

Dec.01.2001

DEPARTMENT/INSTITUTE/DIRECTORATE: CIVIL ENGINEERING

Name of Teacher: **Engr. Masroor Ali Jatoi** Batch: 21CE D Year: 3rd Semester: 5th

Subject: Plain and Reinforced Concrete

Course Code: CE345

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	DESCRIBE various properties of concrete and its ingredients	C2	1
2	DESIGN various structural elements of reinforced concrete	C6	3

Sr. #	Description of Topic	CLO's	No. of Lec. Req.
1.	Plain concrete, introduction about concrete making materials	1	1
2.	Cement, manufacture of Portland cement	1	1
3.	Physical and chemical properties of cement	1	2
4.	Aggregates, properties of aggregates	1	2
5.	Admixtures, various types of admixtures	1	2
6.	Design of concrete mixes	1	3
7.	Production of concrete; batching, mixing, transportation and placing of concrete	1	2
8.	Compaction and curing of concrete	1	2
9.	Properties of concrete in fresh state	1	1
10.	Properties of concrete in hardened state	1	2
11.	Durability of concrete structures	1	2
12.	Cracks and repair of concrete structures	1	2
13.	Reinforced concrete, Basic principles of reinforced concrete design	2	1
14.	Design methods of reinforced concrete members	2	3
15.	Balanced, under-reinforced and over-reinforce sections	2	3
16.	Analysis of prismatic sections in flexure	2	3
17.	Design of prismatic sections in flexure	2	3
18.	Analysis of T and I-sections in flexure	2	4
19.	Design of T and I-sections in flexure	2	4
20.	Slabs, types of slabs	2	2
21.	Analysis and Design of one-way solid slabs	2	3
	Total Lectures		48

Signature of Teacher:

Dated: 13/12/2023

Remarks of DMRC: APPROVED

Signature of Chairman:

Dated: 21/12/2023