MEHRAN UNIUVERSITY OF ENGINEERING AND TECHNOLOGY

TENTATIVE TEACHING PLAN   Dec.01, 2001

DEPARTMENT/INSTITUTE/DIRECTORATE: CIVIL ENGINEERING

Name of Teacher: **Engr. Samar Hussain Rizvi**   Batch: 21CE C   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 to concrete and its types.	1	1
2.	Cement its types, manufacture of Portland cement	1	1
3.	Physical and chemical properties and quality test of cement	1	2
4.	Aggregates, properties of aggregates	1	2
5.	Admixtures, various types of admixtures	1	2
6.	Design of concrete mixes- Problems of Mix design.	1	3
7.	Production of concrete; batching, 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	2
14.	Design methods of reinforced concrete members	2	3
15.	Balanced, under-reinforced and over-reinforce sections	2	3
16.	Flexure Analysis of reinforced concrete beams.	2	3
17.	Design of reinforced concrete Beams- prismatic sections in flexure	2	3
18.	Analysis of T and I-sections in flexure	2	3
19.	Slabs, types of slabs- Live and Dead loads on Slabs	2	3
20.	Analysis of One-way solid slabs.	2	3
21.	Design of One-way slabs and reinforcement details -design problems.	2	3
	Total Lectures		**48**

Signature of Teacher: **Dated: 20/11/2023**

Remarks of DMRC: APPROVED

Signature of Chairman: **Dated: 21/12/2023**