MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY, JAMSHORO.
Department of Civil Engineering

LESSON PLAN

COURSE TITLE: **Geometric Design of Highways and Airports**	COURSE CODE: **CE366**	CREDIT HOURS: **02**	MINIMUM CONTACT HOURS: **32**
COURSE INSTRUCTOR: **Prof. Dr. Rizwan Ali Memon (A+B)/ Engr. Lal Chand (C+D)**			
Batch: **21CE**	**S**emester: **5th**	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:

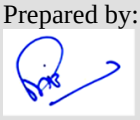
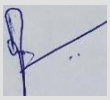
CLO No.	Description	Taxonomy Level	Associated PLOs
1	DISCUSS design controls for geometric elements of highways and airports.	C2	1
2	DESIGN geometric parameters of Highways and airports.	C6	3

LESSON CONTENTS AND ASSOCIATED CLO(s)

Contents	CLO No.	Marks Assigned	Delivery Methods	Assessment Methods (Marks)
★ **Design Controls for Geometric Elements:** ✦ Evolution of Transportation ✦ Highway Engineering: Highway Planning ✦ Functional classification of roads ✦ Introduction to Design controls ✦ Design vehicle and Design Driver ✦ Design speed ✦ Design Volume ✦ Sight Distances ✦ Cross section elements ✦ **Airport Engineering**: Introduction ✦Airport Classification ✦ Factors affecting airport site selection ★ **No. of lectures: 15**	**1**	**24**	✦Lecture ✦Discussion ✦Presentation	•Mid semester Exam (10) •Class Test-I (02) •Assignment-I (02) • Final Exam (10)
★ **Design of Geometric Elements:** ✦ Horizontal Alignments ✦ Horizontal curves ✦ Transition curve ✦ Super-elevation ✦ Vertical Alignments ✦ Grades ✦ Vertical curves ✦ **Airport Design** ✦ Runway Configuration ✦ Geometric Design of Runway ✦ Airport Drainage System ★ **No. of lectures: 17**	**2**	**26**	✦Lecture ✦Discussion ✦Design practice ✦Presentation	• Class Test-II (03) • Assignment-II (03) • Final Exam (20)

ASSESSMENT DETAILS

Sr. No.	Assessment Activities	Marks	Activities		CLO(s) to be assessed
1	Class Test/Assignment	**10**	Assignment(s)	**2**	**1, 2**
			Class test(s)	**2**	**1, 2**
2	Mid Semester Exam	**10**	**1**		**1**
3	Final Semester Exam	**30**	**1**		**1, 2**

Prepared by: **Prof. Dr. Rizwan Ali Memon**	Reviewed by: **Curriculum Review Committee**	Approved by: **Chairman, CED**
		
Signature: Dated: 13-11-2023	Signature: Dated: 12-12-2023	Signature: Dated: 12-12-2023