



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 (B) / Prof. Dr. Agah Faisal Habib (A+C)				
Batch: 22CE	Semester: 5 th	Semester Starting Date: 09/12/2024	Semester Suspension Date: 18/04/2025	

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)
<p>★ Design Controls for Geometric Elements:</p> <ul style="list-style-type: none"> ◆ 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 <p>★ No. of lectures: 15</p>	1	25	<ul style="list-style-type: none"> ◆Lecture ◆Discussion ◆Presentation 	<ul style="list-style-type: none"> • Mid semester Exam (15) • Class Test-I (02) • Final Exam (05) • Assignment-I (03)
<p>★ Design of Geometric Elements:</p> <ul style="list-style-type: none"> ◆ Horizontal Alignments ◆ Horizontal curves ◆ Transition curve ◆ Super-elevation ◆ Vertical Alignments ◆ Grades ◆ Vertical curves <p>◆ Airport Design</p> <ul style="list-style-type: none"> ◆ Runway Configuration ◆ Geometric Design of Runway ◆ Airport Drainage System <p>★ No. of lectures: 17</p>	2	25	<ul style="list-style-type: none"> ◆Lecture ◆Discussion ◆Design practice ◆Presentation 	<ul style="list-style-type: none"> • Class Test-II (05) • Assignment-II (05) • Final Exam (15)

ASSESSMENT DETAILS

Sr. No.	Assessment Activities	Marks	Activities	CLO(s) to be assessed	
1	Class Test/Assignment	15	Assignment(s)	2	1, 2
			Class test(s)	2	1, 2
2	Mid Semester Exam	15	1	1	
3	Final Semester Exam	20	1	1, 2	

Prepared by: **Prof. Dr. Rizwan Ali Memon**



Signature :

Dated: 09/12/2024

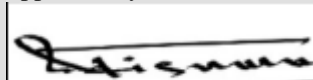
Reviewed by: **Curriculum Review Committee**



Signature:

Dated: 20-12-2024

Approved by: **Chairman, CED**



Signature:

Dated: 20-12-2024