



MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY JAMSHORO

Department of Civil

Engineering LESSON PLAN

COURSE TITLE: Engineering Surveying	COURSE CODE: CE127	CREDIT HOURS: 03	CONTACT HOURS:48
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COURSE INSTRUCTOR: Dr. Rizwan Ali Memon (A) / Engr. Maroosha Larik (B+ C+ D)

Batch: **23CE** Semester: **2nd** Semester Starting Date: **18-12-2023** Semester Suspension Date: **18-04-2024**

COURSE LEARNING OUTCOMES:

CLO	Description	Taxonomy level	PLO
1	DEMONSTRATE various surveying equipment and techniques used for linear and angular measurements and for computation of the areas and volumes.	C3	1
2	COMPUTE the reduction of levels and draw L-section and X-section.	C3	2
3	UNDERSTAND the setting out of different civil engineering works	C2	2

LESSON CONTENTS AND ASSOCIATED CLO(s)


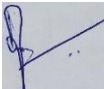

Contents	CLO No.	Marks Assigned	Delivery Methods	Assessment Methods (Marks)
<ul style="list-style-type: none"> • Introduction <ul style="list-style-type: none"> - Introduction to Surveying - Classification of surveying - Distance Measurement • Theodolite Traversing <ul style="list-style-type: none"> - Traverse and types of traverse - Bearing and designation of bearings - Computation of Bearings and Angles. - Adjustment of theodolite - Traversing with theodolite - Traverse computations • Computation of Areas and Volumes <ul style="list-style-type: none"> - Computation of areas by using trapezoidal and Simpson rule - Computation of areas by co-ordinates - Computation of volume by trapezoidal and end area method. <p>No. of lectures: 20</p>	1	44	<ul style="list-style-type: none"> • Class Lecture • Discussion 	<ul style="list-style-type: none"> • Class Test -I (5) • Mid semester Exam (30) • Final Exam (09)

<ul style="list-style-type: none"> • Levelling - Principles and classification of levelling - Types of levels, their temporary and permanent adjustments - Surveying and drafting - Plotting profiles, cross sections, and contours • Trigonometric levelling - Determination of Reduced levels of elevated objects when the base is accessible and inaccessible. • Tachometric Surveying - Tachometry, System of tachometry - Principles and field procedures of tachometry - Use of tachometry for traversing. <p>No. of Lectures: 15</p>	2	30	<ul style="list-style-type: none"> • Class Lecture • Discussion 	<ul style="list-style-type: none"> • Assignment –I (5) • Final Exam (25)
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<ul style="list-style-type: none"> • Highway Curves - Introduction to curves - Types of curves: - Simple circular curves - Compound curves - Reverse curves - Transition curves - Vertical curves - Computation and setting out of curves by different methods. • Setting out works • Setting out the buildings, roads, culverts, bridges. <p>No. of Lectures: 13</p>	3	26	<ul style="list-style-type: none"> • Class Lecture • Discussion 	<ul style="list-style-type: none"> • Assignment - II (5) • Class Test - II (5) • Final Exam (16)
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ASSESSMENT DETAILS

Sr. No.	Assessment Activities	Marks	Activities	CLO(s) to be assessed	
1	Class Test/Assignment	20	Assignment/ Class Test	4	1,2
2	Mid Semester Exam	30	1		1
3	Final Semester Exam	50	1		1,2

Prepared by: Prof. Dr. Rizwan Ali  Signature: Dated: 07-12-2023	Reviewed by: Curriculum Review Committee  Signature: Dated: 12-12-2023	Approved by: Chairman, CED  Signature: Dated: 12-12-2023
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