## MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY

FRM-001/00QSP-004

## DEPARTMENT/INSTITUTE/DIRECTORATE: CIVIL ENGINEERING TENTATIVE TEACHING PLAN Dec.01.2001

Name of Teacher: Engr.Maroosha Larik / Engr. Ghulam Mehdi/ Engr. M. Tahir Mahesar

Batch: 23CE (A+B+C+D)
Subject: Engineering Surveying (Practical)
Term Starting Date: 18-12-2023

Year: $\mathbf{1}^{\text {st }}$ Semester: $\mathbf{2}^{\text {nd }}$

Subject Code: CE127
Term Suspension Date:18/04/2024

## Course learning outcome:

After completion of the course, each student will be able to:

| CLO <br> No. | Description | Taxonomy <br> level | Linking to <br> PLOs |
| :---: | :--- | :---: | :---: |
| 4 | OPERATE various surveying instruments used for linear and <br> angular measurements. | P3 | 5 |


| S. <br> No | Topics | Lectures <br> Required |
| :---: | :--- | :---: |
| 1. | (a) : Introduction to Health and Safety measures in Engineering Surveying Lab . <br> (b) : Introduction to various Surveying instruments. <br> (c) : Various methods and equipment used for measuring distance. |  |
| $\mathbf{2 .}$ | To range out a survey line when the two ends of a line areinter-visible from each end, and <br> when two end points are not inter-visible from each end (Direct and Indirect Ranging). | $\mathbf{0 3}$ |
| $\mathbf{3 .}$ | To measure the horizontal distance between two terminal stations by different methods <br> when the ground is flat and to determine the horizontal distance between the two terminal <br> stations on a sloping ground by (I) Stepping Method (II) Using Abney Level. | $\mathbf{0 3}$ |
| $\mathbf{4 .}$ | To set out the base line and Perpendicular line / Offsets in the field. | $\mathbf{0 3}$ |
| $\mathbf{5 .}$ | Introduction to Automatic level and temporary adjustment of Automatic level. | $\mathbf{0 3}$ |
| $\mathbf{6 .}$ | To collect data for Profile Levelling and cross-sectional leveling of a proposed road using <br> Auto Level. | $\mathbf{0 3}$ |
| 7. | To draw profile of a road (L-Section) and Cross-sections of a proposed road from obtained <br> level data. | $\mathbf{0 3}$ |
| $\mathbf{8 .}$ | Introduction to theodolite and its temporary adjustment and to determine the Horizontal <br> angles, vertical angles and bearing of lines. | $\mathbf{0 3}$ |
| $\mathbf{9 .}$ | To determine the independent coordinates of an existing building by theodolite traversing. | $\mathbf{0 3}$ |
| $\mathbf{1 0 .}$ | To determine horizontal distances by tacheometric Surveying when the line of sight is <br> horizontal. | $\mathbf{0 3}$ |
| $\mathbf{1 1 .}$ | Orientation of Total Station and its Adjustment. | $\mathbf{0 3}$ |
| $\mathbf{1 2 .}$ | To set out the Simple Circular Curve by deflection Angle method. | $\mathbf{0 3}$ |
| T3. | To collect data for contour map of a given area of land by using total station. | $\mathbf{0 3}$ |
| $\mathbf{1 4 .}$ | To determine R.L at top of elevated object by Trigonometric Leveling. | $\mathbf{0 3}$ |
| $\mathbf{1 5 .}$ | To set out layout of a building by using coordinate method with the help of total station. | $\mathbf{0 3}$ |
| $\mathbf{1 6 .}$ | To perform an open-ended lab. | $\mathbf{0 3}$ |
|  | Total lectures | $\mathbf{4 8}$ |

Signature of Teacher:


Dated: 13-12-2023

Remarks by DMRC: APPROVED
Signature of Chairman: Dated: 21/12/2023

