# MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY 

FRM-001/00QSP-004

## DEPARTMENT/INSTITUTE/DIRECTORATE: CIVIL ENGINEERING

TENTATIVE TEACHING PLAN Dec. 01.2001

Name of Teacher: Dr. Rehan Hakro / Engr. Ghulam Mehdi
Batch: 23CE (A+B+C+D)
Subject: Engineering Geology (Practical)

Year: $\mathbf{1}^{\text {st }}$ Semester: $\mathbf{2}^{\text {nd }}$<br>Subject Code: CE129

Term Starting Date: 18-12-2023
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 |
| :---: | :--- | :---: | :--- |
| 3 | RECOGNIZE rocks/minerals, folds and faults and draw cross <br> sections and landslide models. | P1 | 4 |


| S. <br> No | Topics | Lectures <br> Required |  |  |
| :---: | :--- | :---: | :---: | :---: |
| $\mathbf{1 .}$ | Introduction to the Engineering Geology Laboratory and HSE (Health, <br> Safety and Environment) measures |  |  |  |
| $\mathbf{2 .}$ | To determine the hardness of minerals using Moh's scale. | $\mathbf{0 3}$ |  |  |
| $\mathbf{3 .}$ | To determine the lustre streak of minerals. | $\mathbf{0 3}$ |  |  |
| $\mathbf{4 .}$ | To determine the compressive strength of rocks using Schmitt hammer. | $\mathbf{0 3}$ |  |  |
| $\mathbf{5 .}$ | To determine the unconfined compressive strength of rocks in UTM machine. | $\mathbf{0 3}$ |  |  |
| $\mathbf{6 .}$ | To determine the tensile strength of rocks in UTM machine. | $\mathbf{0 3}$ |  |  |
| $\mathbf{7 .}$ | To determine the slake durability index (Weathering) of <br> rocks. | $\mathbf{0 3}$ |  |  |
| $\mathbf{8 .}$ | To determine the presence of carbonates in rocks using acid test. | $\mathbf{0 6}$ |  |  |
| $\mathbf{9 .}$ | To observe the folds using sand box. | $\mathbf{0 3}$ |  |  |
| $\mathbf{1 0 .}$ | To observe the different types of faults using sand box. | $\mathbf{0 3}$ |  |  |
| $\mathbf{1 1 .}$ | To determine the dip and strike of geological structure on site. | $\mathbf{0 3}$ |  |  |
| $\mathbf{1 2 .}$ | To prepare the various slopes in landslide Physical Model. | $\mathbf{0 3}$ |  |  |
| $\mathbf{1 3 .}$ | To observe the relationship between rainfall intensity and erosion <br> using landslide physical model. | $\mathbf{0 3}$ |  |  |
| $\mathbf{1 4 .}$ | To prepare drawing of Cross Sections from Geological maps. | $\mathbf{0 3}$ |  |  |
| $\mathbf{1 5 .}$ | To perform an open-ended lab. | $\mathbf{0 3}$ |  |  |
|  | Total lectures $\mathbf{l}$ |  |  |  |

Signature of Teacher: leh .

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

