



# MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY JAMSHORO

## Department of Civil Engineering

### LESSON PLAN

|   |                                 |   |   |                                  |
|---|---------------------------------|---|---|----------------------------------|
| COURSE TITLE:<br><b>Concrete Technology</b>                               |                                 | COURSE CODE:<br><b>CET 201</b>            | CREDIT HOURS: <b>02</b>                     | MINIMUM CONTACT HOURS: <b>32</b> |
| COURSE INSTRUCTOR: <b>Prof. Dr. Ashfaque Memon/Engr. Ali Raza Lashari</b> |                                 |   |   |                                  |
| Batch:<br><b>24B.E. Tech. (Civil)</b>                                     | Semester: <b>2<sup>nd</sup></b> | Semester Starting Date: <b>06-01-2025</b> | Semester Suspension Date: <b>24-04-2025</b> |                                  |

**COURSE LEARNING OUTCOMES:** Upon successful completion of the course, the student will be able to:



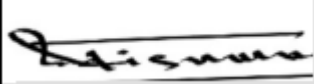
| CLO No. | Description  | Taxonomy level | Associated PLO |
|---------|--|----------------|----------------|
| 1       | <b>DISCUSS</b> various properties of concrete and its constituent materials.                                   | C2             | 1              |
| 2       | <b>DEMONSTRATE</b> the basics of concrete mix design considering various parameters using standard guidelines. | C3             | 3              |

#### LESSON CONTENTS AND ASSOCIATED CLO(s)

| Contents  | CLO No. | Marks Assigned | Delivery Methods  | Assessment Methods (Marks)  |
|---|---------|----------------|---|---|
| <ul style="list-style-type: none"> <li>Cement, physical and chemical properties of cement, Type of cements and their use.</li> <li>Aggregate, types of aggregate, various properties of aggregates.</li> <li>Admixtures, various types of admixtures and their use in concrete.</li> <li>Water, quality of water for the use in concrete.</li> <li>Production of concrete, batching, mixing, transportation, placing, compaction and curing of concrete.</li> <li>Properties of concrete in fresh state.</li> <li>Properties of concrete in hardened state</li> <li>Non-destructive testing of concrete samples</li> </ul> <p>➤ (Total Classes: 26)</p> | 1       | 40             | <ul style="list-style-type: none"> <li>Class Lecture</li> <li>Discussion</li> </ul>                           | <ul style="list-style-type: none"> <li>Class Test-I (05)</li> <li>Class Test-II (02)</li> <li>Assignment-I (03)</li> <li>Mid semester Exam (15)</li> <li>Final Exam (15)</li> </ul> |
| <ul style="list-style-type: none"> <li>Procedure for design of concrete mixes using DOE method,</li> <li>Procedure for design of concrete mixes using ACI method</li> </ul> <p>➤ (Total Classes: 06)</p>  | 2       | 10             | <ul style="list-style-type: none"> <li>Class Lecture</li> <li>Discussion</li> <li>Related Problems</li> </ul> | <ul style="list-style-type: none"> <li>Assignment-II (05)</li> <li>Final Exam (05)</li> </ul>   |

#### ASSESSMENT DETAILS

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

|   |  |  |
|---|--|--|
| <hr/>   |  |  |
| <p>Prepared by: <b>Prof. Dr. Ashfaque Ahmed Memon</b></p>  <p>Signature:<br/>Dated: 18-12-2024</p> | <p>Reviewed by: <b>Curriculum Review Committee</b></p>  <p>Signature:<br/>Dated: 20/12/2024</p> | <p>Approved by: <b>Chairman, CED</b></p>  <p>Signature:<br/>Dated: 20/12/2024</p> |