



MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY JAMSHORO

Department of Civil Engineering

LESSON PLAN

COURSE TITLE: Civil Engineering Materials	COURSE CODE: CE106	CREDIT HOURS: 03	MINIMUM CONTACT HOURS: 48
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COURSE INSTRUCTOR: **Prof. Dr. Tauha Hussain Ali/Engr. Muhammad Saleem Raza (A+B+C+D)**

Batch: **23CE** Semester: **1st** Semester Starting Date: **15-08-2023** Semester Suspension Date: **24-11-2023**

COURSE LEARNING OUTCOMES:

CLO No.	Description	Taxonomy level	Associated PLO
1	EXPLAIN various materials and their physical characteristics used in different types of civil engineering works	C2	1
2	ILLUSTRATE the suitability of different materials and their behavior for their use in civil engineering projects.	C3	4




LESSON CONTENTS AND ASSOCIATED CLO(s)

Contents	CLO No.	Marks Assigned	Delivery Methods	Assessment Methods (Marks)
<ul style="list-style-type: none"> • Bricks and Tiles General characteristics, Varieties, Manufacturing, Strength tests, Uses. • Building Stone Quarrying, Dressing, Varieties, Strength tests, Uses. • Aggregates Characteristics and classifications, Fineness modulus, Strength and durability, Quality tests of aggregates. • Cement Manufacturing, Properties and uses of cement, Types of cement, Quality tests • Lime Composition, Manufacturing, Varieties, Uses • Concrete Composition, Varieties, Properties, Tests and uses. • Timber Varieties and uses, Identification, Methods of seasoning and sawing, Decay and preservation of timber, Laminated materials. • Glass Composition, Varieties, Properties, Uses. 	1	70	<ul style="list-style-type: none"> • Class Lectures • Discussion 	<ul style="list-style-type: none"> • Assignment-I (05) • Class Test-I (05) • Mid Semester Exam (30) • Final Exam (30)

<ul style="list-style-type: none"> • Metals and Alloys Manufacturing, characteristics, strength and uses of different metals & alloys, Ferrous and non-ferrous metals and alloys, Iron, and its types, reinforcing steel bars, copper, tin, zinc, lead, aluminium, nickel, brass and bronze, Induced corrosion and methods of corrosion control, Cathodic protection, epoxy coats, antirust compounds. Galvanizing • Pipes and Sheets Pipes, their types and uses, Plain and corrugated sheets. • Paints and Plasters Composition, Preparation, Properties, Tests, Uses of paints, plasters, Varnishes, and distempers. • Other Materials Composition, preparation, tests and uses of Bitumen, Asphalt, Tar, Plastics, Fibre Glass, Epoxy, Bearing Pads, Resin materials, Laminates, Adhesive, Asbestos, Gypsum. <p>No. of Lectures: 35</p>				
<p>Precast Materials and their use Uses of Stones, bricks, tiles, and blocks Use of Binders Uses of concrete and mortar Uses of Timber Use of Glass and different types of metals Use of paint, plastic, and varnishes Use of Asbestos and Bituminous materials</p> <p>No. of Lectures: 13</p>	2	30	<ul style="list-style-type: none"> • Class Lectures • Discussion 	<ul style="list-style-type: none"> • Assignment-II (05) • Class Test-II (05) • Final Exam (20)

ASSESSMENT DETAILS

S. No.	Assessment Activities	Marks	Activities		CLO(s) to be assessed
1	Class Test/Assignment/Project Design/ Presentation/Quiz/Field Report	20	Assignment(s)	2	1 and 2
			Class Test(s)	2	1 and 2
2	Mid Semester Exam	30	1		1
3	Final Semester Exam	50	1		1 and 2

<p>Prepared by: Prof. Dr. Tauha Hussain Ali</p>  <p>Signature: _____ Dated: 13/10/2023</p>	<p>Reviewed by: Curriculum Review Committee</p>  <p>Signature: _____ Dated: 14/10/2023</p>	<p>Approved by: Chairman, CED</p>  <p>Signature: _____ Dated: 14/10/2023</p>
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