MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY JAMSHORO
Department of Civil Engineering

LESSON PLAN

COURSE TITLE: **Computer Aided Drawing & Building Information Modeling**	COURSE CODE: **CET209**	CREDIT HOURS: **01**	MINIMUM CONTACT HOURS: **16**
COURSE INSTRUCTER: **Dr. Fahad-ur-Rehman Abro/ Engr. Adeel Awan**			
Batch: **23BS-CET**	Semester: **4th**	Semester Starting Date: **09-12-2024**	Semester Suspension Date: **18-04-2025**

COURSE LEARNING OUTCOMES:

CLO No.	Description	Taxonomy level	Associated PLO
1	**Understand** development of computer aided architectural and structural 3D drawings of basic nature including architectural and structural	C2	5
2	**Apply** BIM models up to 5D of basic nature architectural and structural	C3	5

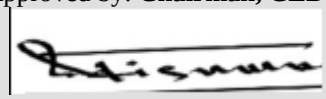
LESSON CONTENTS AND ASSOCIATED CLO(s)

Contents	CLO No.	Marks Assigned	Delivery Methods	Assessment Methods (Marks)
Computer Aided Drawing using Revit: Overview of Revit, Core Concepts, Understanding the process of developing 3D architectural and structural models in Revit, Different perspectives of 3D models, develop proficiency in Autodesk Revit software, understanding architectural building models with structural and MEP systems **No. of lectures: 06**	**1**	**17**	• Class Lectures • Discussion	• Class Test-I (02) • Mid Semester Exam (10) • Final Exam (05)
BIM Fundamentals: BIM Overview, BIM vs Traditional CAD, Common BIM Terminologies, Value of BIM, BIM as communication and collaboration tool, BIM benefits, Typical BIM process, BIM Implementation Needs and Challenges, Understanding the role of BIM in sustainability, analyzing energy performance, implementing green design strategies, discussion on BIM benefits, Clash detection between models of different disciplines. **BIM Technology:** Phased Structure of a BIM project; common BIM applications, develop understanding of how BIM models are integrated with schedules, developing templates for estimating 5D, Walkthroughs/Flythroughs/Animation, Presentation Issues/Rendering. **No. of lectures: 10**	**2**	**33**	• Class Lectures • Discussion	• Assignment (08) • Mid Semester Exam (05) • Final Exam (15) • Class Test-II (05)

ASSESSMENT DETAILS

S. No.	Assessment Activities	Marks	Activities		CLO(s) to be assessed
1	Class Test/Assignment	**15**	Assignment(s)	2	1,2
			Class test (s)	2	1,2
2	Mid Semester Exam	**15**	1		1 and 2

3	Final Semester Exam	**20**	1	1 and 2

Prepared by: **Dr. Fahad-ur-Rehman Abro**  Signature: Dated: 09-12-2024	Reviewed by: **Curriculum Review Committee**  Signature: Dated: 20-12-2024	Approved by: **Chairman, CED**  Signature: Dated: 20-12-2024