CA5152: ADVANCED ARCHITECTURAL DESIGN STUDIO: EVIDENCE-BASED DESIGN

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Advanced Architectural Design Studio: Evidence-based Design

Subject Code
CA - Civil and Architectural Engineering
Course Number
5152

Academic Unit
Architecture and Civil Engineering (CA)

College/School
College of Engineering (EG)

Course Duration
One Semester

Credit Units
6

Level
P5, P6 - Postgraduate Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Nil

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

The themed studio series includes four different studio foci; it aims to provide students with a studio environment to explore areas of their own interest and prepare them to formulate their independent study in the Architectural Thesis Studio.

This studio focuses on the use of empirical evidence to inform design decisions. The studio explores the relationship between design and human behavior and how research can be used to create more effective, efficient, and sustainable buildings and urban environment. The studio highlights the importance of evidence-based design in today's world, where the need for sustainable, healthy, and comfortable living spaces is becoming increasingly critical.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Describe contextual issues in a design project considering emerging topics of evidence-based design		x	x	
2	Formulate design concepts and schematic design alternatives by proposing new strategies of architectural or urban design		x	x	x
3	Incorporate empirical evidence into design decisions, evaluate the impact of design decisions			x	x
4	Complete professional presentation and documentation of a design proposal			x	x

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Design Studio	Students will engage in the design studio to attain a comprehensive understanding of the principles and practices of evidence-based design and their application in architectural design. Students will develop a portfolio of evidence-based design projects that showcase their understanding of the course concepts and their ability to apply them in real-world scenarios.	1, 2, 3, 4	

Additional Information for LTAs

Semester Hours: 6 hours per week

Lecture/Tutorial/Laboratory Mix: Lecture (0); Tutorial (0); Laboratory (6*)

*Studio

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Assignments	1, 2, 3, 4	100	Design project	Yes

Continuous Assessment (%)

100

Examination (%)

0

Minimum Continuous Assessment Passing Requirement (%)

40

Minimum Examination Passing Requirement (%)

0

Assessment Rubrics (AR)

Assessment Task

Assignments (Applicable to students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Quality of design proposition, appropriateness of depth and complexity of the design proposition, coherence of resolution of architecture's relationship with research evidence and / or reflective discourse, quality of research conclusions and / or reflection on architectural proposition, communication quality, organisation and skill of presentation, ability to respond to questions.

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

Assignments (Applicable to students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Quality of design proposition, appropriateness of depth and complexity of the design proposition, coherence of resolution of architecture's relationship with research evidence and / or reflective discourse, quality of research conclusions and / or reflection on architectural proposition, communication quality, organisation and skill of presentation, ability to respond to questions.

Excellent

(A+, A, A-) High

Good

(B+, B,) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

Architectural design, Design studio, Contextual analysis, Sustainable development, Adaptive reuse of heritage building, Architectural and urban conservation

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	Kopec, D., Sinclair, E., & Matthes, B. (2011). Evidence based design: A process for research and writing. Pearson Higher Ed.
2	Hamilton, D. K., & Watkins, D. H. (2008). Evidence-based design for multiple building types. John Wiley & Sons.