

CA19111: INTEGRATED STUDIO - SMALL-SCALE BUILDINGS (TOPIC 1)

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Integrated Studio - Small-Scale Buildings (Topic 1)

Subject Code

CA - Civil and Architectural Engineering

Course Number

19111

Academic Unit

Architecture and Civil Engineering (CA)

College/School

College of Engineering (EG)

Course Duration

One Semester

Credit Units

6

Level

A1, A2 - Associate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

CA19101 Integrated Studio - Small-Scale Buildings; BST11081 Integrated Studio - Small-Scale Buildings; CA19121 Integrated Studio - Small-Scale Buildings (Topic 2); CA19131 Integrated Studio - Small-Scale Buildings (Topic 3)

Exclusive Courses

Nil

Part II Course Details

Abstract

This course aims to enhance students' understanding of architectural design of a small-scale building. The emphasis is on developing a set of analytical and design tools to explore spatial strategies and configurations in design precedents, and apply the findings to inform decisions in the architectural design process. Through a specific topic selected by the studio tutor, students will explore various themes relating to the development of a spatial configuration based on predetermined design intentions.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if DEC-A1 DEC-A2 DEC-A3 app.)			
1	Identify information from various sources to facilitate the preparation of design proposals.		x		
2	Develop design strategies for architectural design through the study of precedents.			x	
3	Combine simple structural systems with the spatial and functional aspects of architectural design into a coherent whole.			x	
4	Produce architectural design proposals to satisfy basic social and technical requirements of a small-scale project of a specific topic.				x
5	Produce solutions for various problems relating to small-scale building development of a specific topic.				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.

Teaching and Learning Activities (TLAs)

TLAs		Brief Description	CILO No.	Hours/week (if applicable)
1	Design Project	Design Project engages students in the production of an integrated proposal for a building design of a specific topic in response to a set of constraints and requirements. Teaching and learning are conducted through regular studio classes in which students will develop their individual design proposals under the facilitation of a studio tutor.	1, 2, 3, 4, 5	8 hrs / week

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Interim Presentation (Design development sketches and models)	1, 2	30	
2	Final Presentation (Synthesis of analysis and development into a design solution)	3, 4, 5	50	
3	Portfolio (Documentation of overall design process and outcomes)	4, 5	20	

Continuous Assessment (%)

100

Examination (%)

0

Additional Information for ATs

Students must attain a minimum mark of 30 in all assessment components AND an overall mark of 40 to pass the course.

Assessment Rubrics (AR)**Assessment Task**

1. Interim Presentation (Design development sketches and models)

Criterion

1.1 Identify relevant information from required plus additional sources. Thorough attempt to classify the various types of information to facilitate the preparation of design proposals.

1.2 Clear and comprehensive explanation of the essential information of a problem solution and design proposal. Thorough attempt to explain the various types of information through written, graphic and verbal means.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal level

Assessment Task

2. Final Presentation (Synthesis of analysis and development into a design solution)

Criterion

2.1 Demonstrate ability to develop design strategies for architectural design based on in-depth analysis and understanding of precedents.

2.2 Thorough and skilful combination of the requirements of simple structural systems with the spatial and functional aspects of architectural design. Comprehensive synthesis of all aspects into a coherent form.

2.3 Production of innovative architectural design proposals for a small-scale project. Thorough and skilful integration of all aspects of the design to satisfy basic social and technical requirements.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal level

Assessment Task

3. Portfolio (Documentation of overall design process and outcomes)

Criterion

3.1 Compile a comprehensive document that presents clearly the synthesis and design process of the creative solution using text, graphics and other presentation techniques.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal level

Part III Other Information

Keyword Syllabus

- Architectural design: Small-scale building development; single-family house; architectonics; precedent study and analysis; principles of spatial organisation.
- Design integration: Integration of simple structural systems; selection of building materials; basic assembly of building components.
- Communication: Basic graphic and oral presentation.

Reading List**Compulsory Readings**

	Title
1	Clark, R.H. and Pause M. (1996). Precedents in architecture (2nd ed). New York: Van Nostrand Reinhold.
2	Ching, F. (1996). Architecture: form, space, & order (2nd ed). New York: Van Nostrand Reinhold.
3	Davies, C. (2006). Key houses of the twentieth century: plans, sections and elevations. London: Laurence King.
4	Foster, J.S. (2007). Structure and fabric part 1 (7th ed). New York: Pearson/Prentice Hall.
5	Laseau, P. (2001). Graphic thinking for architects & designers (3rd ed). New York: J. Wiley.
6	Pressman, A. (1993). Architecture 101: a guide to the design studio. New York: Wiley.
7	Unwin, S. (2003). Analysing architecture (2nd ed). New York: Routledge.

Additional Readings

	Title
1	Nil