

CA3349A: ARCHITECTURAL DESIGN: BUILDING INTEGRATION (TOPIC 1)

Effective Term

Semester A 2025/26

Part I Course Overview

Course Title

Architectural Design: Building Integration (Topic 1)

Subject Code

CA - Civil and Architectural Engineering

Course Number

3349A

Academic Unit

Architecture and Civil Engineering (CA)

College/School

College of Engineering (EG)

Course Duration

One Semester

Credit Units

6

Level

B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

CA2344A Architectural Design – Site and Environment (Topic 1); or
CA2344B Architectural Design – Site and Environment (Topic 2)

Equivalent Courses

CA3349B Architectural Design: Building Integration (Topic 2)

Exclusive Courses

Nil

Part II Course Details

Abstract

This course provides students with the awareness and understanding of, and the ability to apply and integrate, various theories, knowledge and skills relating to the design and development of an architectural project informed by functionality and programming. 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 app.)	DEC-A1	DEC-A2	DEC-A3
1	Identify and explore multiple theories and aspects of architecture design.		x	x	
2	Review and apply information from various sources to facilitate the preparation of an integrated design proposal.		x	x	
3	Understand and apply practical design solutions considering functionality and programming of a building project.		x	x	
4	Formulate a design proposal to integrate multiple theories, knowledge and skills and create an articulated building project.				x
5	Develop architectural design proposals to satisfy the programming and functionality requirements.				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 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	
2	Lecture/Seminar	Knowledge pertaining to the topic to facilitate the acquisition of theoretical tools for design development.	1, 2, 5	

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks ("- for nil entry)	Allow Use of GenAI?
1	Assignments	1, 2, 3	50		No
2	Final Presentation	3, 4, 5	50		No

Continuous Assessment (%)

100

Examination (%)

0

Minimum Continuous Assessment Passing Requirement (%)

40

Minimum Examination Passing Requirement (%)

0

Assessment Rubrics (AR)**Assessment Task**

Assignments

Criterion

- 1.1 Ability to identify multiple theories and aspects of architecture design;
- 1.2 Thorough review and skilful application of various information to facilitate the preparation of building design;
- 1.3 Tactful application of design solutions to address the functionality and programming issues of the building project.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching a marginal level

Assessment Task

Final Presentation

Criterion

2.1 Tactful application of design solutions to address the functionality and programming issues of the building project;
2.2 Formulate an innovative and articulated design proposal to integrate multiple theories, knowledge and skills;
2.3 Develop and communicate a comprehensive architectural design proposals to satisfy the programming and functionality requirements.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching a marginal level

Part III Other Information

Keyword Syllabus

Formulation of the design brief; programme development and integration; Functionality and spatial articulation; integration of programmatic and functional concerns; accessibility and other systems; human diversity and needs; scenario-based building design.

Reading List

Compulsory Readings

Title	
1	Nil

Additional Readings

Title	
1	Cherry, C. (1999). Programming for design: From theory to practice. New York: John Wiley & Sons.
2	Christ, E. (Ed.) (2010). Hong Kong typology: An architectural research on Hong Kong building types. Zurich: GTA.
3	Pena, W. and Parshall, S. (2001). Problem seeking: An architectural programming primer (4th ed). New York: Wiley
4	Clark, R. S. (2009). Integrated Architectural Design. In Structures Congress 2009 (pp. 1-4).
5	Moe, K. (2008). Integrated design in contemporary architecture (1st ed.). New York, N.Y.: Princeton Architectural Press.
6	Clark, R.H. and Pause, M. (2005). Precedents in architecture: analytic diagrams, formative ideas, and partis (3rd ed). Hoboken, N.J.: Wiley.
7	Christ, E. (Ed.) (2010). Hong Kong typology: An architectural research on Hong Kong building types. Zurich: GTA.