

# CA29113: ARCHITECTURAL DESIGN – SITE AND ENVIRONMENT (TOPIC 1)

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## Effective Term

Semester A 2022/23

## Part I Course Overview

### Course Title

Architectural Design – Site and Environment (Topic 1)

### Subject Code

CA - Civil and Architectural Engineering

### Course Number

29113

### 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

CA29112 Integrated Studio - Medium-Scale Buildings (Topic 1); or CA29122 Integrated Studio - Medium-Scale Buildings (Topic 2); or CA29132 Integrated Studio - Medium-Scale Buildings (Topic 3); or CA29102 Integrated Studio - Medium-Scale Buildings; or BST21082 Integrated Studio - Medium-Scale Buildings

### Precursors

Nil

### Equivalent Courses

CA29103 Integrated Studio - High-Rise Buildings; BST21083 Integrated Studio - High-Rise Buildings; CA29123 Integrated Studio - High-Rise Buildings (Topic 2); CA29133 Integrated Studio - High-Rise Buildings (Topic 3)

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

This course aims to reinforce students' understanding relationship between the building and the site - indoor and outdoor environment. The subject of the design project detailed by the studio tutor consists on a cluster of small building(s) on a specific, characteristic and demanding site. The site is considered in this design studio as a challenge and starting point for all the architectural experimentations and strategies. The aim of the course is to understand the importance of the site for the design project development in order to propose an original architectural solution that is modern, functional but also fully adapted to the surroundings.

### Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Review information from various sources to facilitate the solving of preparation of design proposals.		x		
2	Integrate the requirements of building and development control legislations into the design of a high-rise building project.			x	
3	Integrate various sustainable strategies into the design and development of a building project.			x	
4	Develop architectural design proposals to satisfy the functional and technical requirements of a high-rise building project.				x
5	Formulate solutions for various problems relating to high-rise building development.				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)**

	<b>TLAs</b>	<b>Brief Description</b>	<b>CILO No.</b>	<b>Hours/week (if applicable)</b>
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)**

	<b>ATs</b>	<b>CILO No.</b>	<b>Weighting (%)</b>	<b>Remarks (e.g. Parameter for GenAI use)</b>
1	1. Interim Presentation (Design development sketches and models)	1, 2	30	
2	2. Final Presentation (Synthesis of analysis and development into a design solution)	3, 4, 5	50	
3	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 Review 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 Demonstrate the ability of comprehensive and essentially accurate integration of the requirements of building and development control legislations into the design of a high-rise 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 marginal level

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**Assessment Task**

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

**Criterion**

2.1 Demonstrate ability to develop design strategies incorporation of innovative environmental and sustainable technologies into the design of a high-rise building project.

2.2 Production of innovative architectural design proposals for a high-rise project. Thorough and skilful integration of all aspects of the design to satisfy the environmental and technical requirements.

2.3 Formulation of in-depth and coherent solutions for various problems relating to high-rise building development.

**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

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**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: High-rise building development; office buildings; residential buildings; sustainable strategies in design.
- Design integration: Building and development control legislations in design; integration of high-rise structural systems; selection of building envelope systems and materials; detailing of advanced building components.
- Communication: Advanced graphic and verbal presentation.

**Reading List****Compulsory Readings**

	Title
1	Bailey, S. (1990). Offices. London: Butterworth Architecture.
2	Chandler, R. [et al.] (2005). Building type basics for housing. Hoboken: J. Wiley & Sons.
3	Eisele, J. and Kloft, E. [ed.] (2003). High-rise manual. Basel: Birkhauser.
4	Foster, J.S. (2007). Structure and fabric Part 2 (7th ed). New York: Pearson/Prentice Hall.
5	Kohn, A.E. and Katz, P. (2002). Building type basics for office buildings. New York: John Wiley & Sons.
6	Marmot, A. and Eley, J. (2000). Office space planning: designing for tomorrow's workplace. New York: McGraw-Hill.
7	Poon, T. and Chan, E. [ed.] (1998). Real Estate Development in Hong Kong. Hong Kong: Pace Publishing Ltd.
8	BD (Latest Edition). Codes of Practice and Design Manuals. Buildings Department Hong Kong.
9	BD (Latest Edition). Practice Notes for AP and RSE. Buildings Department Hong Kong.
10	Statute Laws of Hong Kong Chapter 123 (Latest Edition). Buildings Ordinance and Regulations.

**Additional Readings**

	Title
1	Nil