# City University of Hong Kong Course Syllabus

# offered by Department of Architecture and Civil Engineering with effect from Semester A 2022/23

# Part I Course Overview

Course Title:	Green Building, Architecture and People
Course Code:	CA6609
Course Duration:	1 Semester (Some courses offered in Summer Term may start a few weeks earlier than the normal University schedule. Please check the teaching schedules with CLs before registering for the courses.)
Credit Units:	3
Level:	P6
Medium of Instruction:	English
Medium of Assessment:	English
<b>Prerequisites:</b> (Course Code and Title)	Nil
<b>Precursors:</b> (Course Code and Title)	Nil
<b>Equivalent Courses:</b> (Course Code and Title)	BC6609 Green Building, Architecture and People
Exclusive Courses: (Course Code and Title)	Nil

# **Part II Course Details**

# 1. Abstract

This course aims to introduce students the concepts of green buildings and sustainability to solve contemporary environmental challenges. It helps students to understand the relationship between architecture, concerns and requirements of occupants. The course emphasizes the student's ability to formulate special study areas in green building, architecture and people, and conduct case studies or special studies of the subject matter.

### 2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	understand the concepts of green buildings and sustainability as encouraged by the HKSAR Government; green building knowledge in Hong Kong, and case study;		$\checkmark$		
2.	understand the relationship between architectural concerns and the requirements of occupants with the actual building design;		$\checkmark$		
3.	assess buildings from an architectural, interior design, landscape design and environmental protection points of view;			$\checkmark$	$\checkmark$
4.	understand the definitions of a green building, and green building assessment.		$\checkmark$		
		100%			

### 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 self-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.

**3. Teaching and Learning Activities (TLAs)** (*TLAs designed to facilitate students' achievement of the CILOs.*)

TLA	Brief Description	CILO	No.	Hours /		
		1	2	3	4	week (if applicable)
Lectures	Mass lecture on explaining history of architecture; man's behavior in varying built environment; urban versus rural development; alternative definitions of green buildings; assessment of green buildings; architects' approaches to green building design; green buildings in Hong Kong; technologies for green buildings; energy efficient and intelligent buildings; sustainability of buildings; financial viability of green buildings; harmony between human beings and the built environment.	$\checkmark$	✓			
Tutorials	Scenario-type tutorial class – Case-studies related to harmony between human beings, the built environment and green buildings should be discussed; green building assessment by using Hong Kong BEAM plus with real case studies should be applied.			$\checkmark$	✓	

Semester Hours:	3 hours per week
5	Lecture (-); Tutorial (-); Laboratory (-) Mixed lecture and tutorial sessions

# 4. Assessment Tasks/Activities

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks / Activities		O No.			Weighting	Remarks		
	1	2	3	4				
Continuous Assessment: 100%								
Assignments	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	100%	Including a 20% in-class assignment.		
Examination: 0%								
Examination					0%			
					100%			

# 5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
Assignments	<ul> <li>CAPACITY to EXPLAIN the different green building criteria.</li> <li>CAPACITY to DISCUSS the architects' approaches to green building design; energy efficient and intelligent buildings; sustainability of buildings; financial viability of green buildings; harmony between human beings and the built environment.</li> <li>ABILITY to USE the green building criteria and APPLY green building assessment to the question project/case.</li> </ul>	High	Significant	Basic	Not even reaching marginal levels

Applicable to students admitted in Semester A 2022/23 and thereafter

# Applicable to students admitted before Semester A 2022/23

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
Assignments	<ul> <li>CAPACITY to EXPLAIN the different green building criteria.</li> <li>CAPACITY to DISCUSS the architects' approaches to green building design; energy efficient and intelligent buildings; sustainability of buildings; financial viability of green buildings; harmony between human beings and the built environment.</li> <li>ABILITY to USE the green building criteria and APPLY green building assessment to the question project/case.</li> </ul>		Significant	Moderate	Basic	Not even reaching marginal levels

Part III Other Information (more details can be provided separately in the teaching plan)

### 1. Keyword Syllabus

(An indication of the key topics of the course.)

Human behaviour in various built environments; urban versus rural development; definitions of green buildings; assessment of green buildings; architects' approaches to green building design; green buildings in Hong Kong; technologies for green buildings; energy efficient and intelligent buildings; sustainability of buildings; harmony between human beings and the built environment.

# 2. Reading List

### **2.1 Compulsory Readings**

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Nil	
	1	1

# 2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	European Commission, Directorate General XVII for Energy, 1999. A Green Vitruvius: Principles and Practice of Sustainable Architectural Design, James & James, London.
2.	Sustainable Building Technical Manual: Green Building Design, Construction and Operations, Public Technology, Inc., Washington, D.C., 1996.
3.	Kibert, C. J., Sustainable construction: green building design and delivery, Hoboken, N.J. : John Wiley, 2005.
4.	Kibert, C. J., Sendzimir, J. and Guy, G. B., Construction ecology: nature as the basis for green buildings, London ; New York : Spon Press, 2002.
5.	Green buildings and Sustainable Architecture http://www.arch.hku.hk/research/BEER/sustain.htm and other education lectures and further links.
6.	Environmental Design Library - Green Design / Sustainable Architecture: Resources http://www.lib.berkeley.edu/ENVI/GreenAll.html.
7.	Building Department Environmental Reports http://www.bd.gov.hk/english/documents/index_env.html
8.	Nano-building materials and new building technologies for green buildings -e.g. solar resistant paint, concrete treated with water proofing liquid http://www.formulahk.com/english/building/nanocoasting/index.html.