# City University of Hong Kong Course Syllabus

# offered by Department of Architecture and Civil Engineering with effect from Semester A 2022 / 2023

## **Part I Course Overview**

<b>Course Title:</b>	Green Building, Architecture and People
Course Code:	CA8609
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:	R8
<b>Medium of Instruction:</b>	English
<b>Medium of Assessment:</b>	English
Prerequisites: (Course Code and Title)	Nil
Precursors: (Course Code and Title)	Nil
<b>Equivalent Courses:</b> (Course Code and Title)	BC8609 Green Building, Architecture and People
Exclusive Courses: (Course Code and Title)	Nil

## **Part II Course Details**

#### 1. Abstract

To study the importance of environmental protection through the design and construction of green buildings.

## 2. Course Intended Learning Outcomes (CILOs)

No.	CILOs #	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		d es
			A1	A2	A3
1.	understand the concepts of green buildings and sustainability as encouraged by the Buildings Department, HKSAR Government and case study;			<b>✓</b>	
2.	understand the relationship between architectural concerns and the requirements of occupants with the actual building design;			<b>√</b>	
3.	implement an assessment on buildings from an architectural, interior design, landscape design and environmental protection points of view;				<b>✓</b>
4.	understand the definitions of a green building, and green building assessment.			<b>√</b>	
* If	weighting is assigned to CILOs, they should add up to 100%.	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)

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.	<b>V</b>	<b>√</b>				
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.			<b>√</b>	<b>√</b>		

Semester Hours:	3 hours per week
Lecture/Tutorial/Laboratory Mix:	Lecture (2); Tutorial (1); Laboratory (0)

# 4. Assessment Tasks/Activities

Assessment Tasks / Activities	CILO No.		Weighting*	Remarks			
	1	2	3	4			
Continuous Assessment: 100%							
Assignment (Individual Report)	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	70%		
Test	<b>✓</b>	<b>✓</b>		<b>√</b>	30%		
Examination: 0%							
* The weightings should add up to 100%.							

## **5.** Assessment Rubrics

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

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
Assignment (Individual Report)	2.1 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.  ABILITY to USE the green building criteria and APPLY green building assessment to the question project/case.		Significant	Basic	Not even reaching marginal levels
Test	CAPACITY to EXPLAIN the different green building criteria and APPLY green building assessments	High	Significant	Basic	Not even reaching marginal levels

# 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)
Assignment (Individual Report)	2.1 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.  ABILITY to USE the green building criteria and APPLY green building assessment to the question project/case.	High	Significant	Moderate	Basic	Not even reaching marginal levels
Test	CAPACITY to EXPLAIN the different green building criteria and APPLY green building assessments	High	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

History of architecture; man's behaviour 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.

### 2. Reading List

## 2.1 Compulsory Readings

1. BEAM Plus New Buildings & Existing Buildings, HKGBC, 2014.

## 2.2 Additional Readings

- 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.