

**City University of Hong Kong  
Course Syllabus**

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

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**Part I Course Overview**

<b>Course Title:</b>	Design Representation and Building Information Management
<b>Course Code:</b>	CA5159
<b>Course Duration:</b>	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.)
<b>Credit Units:</b>	3
<b>Level:</b>	P5
<b>Medium of Instruction:</b>	English
<b>Medium of Assessment:</b>	English
<b>Prerequisites:</b> <i>(Course Code and Title)</i>	Nil
<b>Precursors:</b> <i>(Course Code and Title)</i>	Nil
<b>Equivalent Courses:</b> <i>(Course Code and Title)</i>	Nil
<b>Exclusive Courses:</b> <i>(Course Code and Title)</i>	Nil

## Part II Course Details

### 1. Abstract

This course aims to provide students with an awareness of architectural communication and representation by involving choice of media and creative connection of information, data, analysis and knowledge. The course focuses to train students on developing visual communication strategies and methods to represent architectural design proposals, and supplement design information management with trending BIM tools.

### 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.	recognize creative methods of visual communication in architectural design		✓	✓	
2.	practice a range of representation by applying mix-media approaches			✓	✓
3.	synthesize connection of information, data, analysis and knowledge in design representation			✓	✓
4.	create architectural representation by implementing professional and innovative strategies			✓	✓
		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 / week (if applicable)
		1	2	3	4	
Lectures	On the topics relative to Architecture Representation	✓	✓	✓	✓	
Tutorials	In class discussions and activities on problems related to lecture themes and assignment	✓	✓	✓	✓	

Semester Hours:	3 hours per week
Lecture/Tutorial/Laboratory Mix:	Lecture (Mix); Tutorial (Mix); Laboratory (Mix)
	3 hours per week including lectures, tutorials, and studio sessions

### 4. Assessment Tasks/Activities

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

Assessment Tasks / Activities	CILO No.				Weighting	Remarks
	1	2	3	4		
Continuous Assessment: 100%						
Assignments	✓	✓	✓	✓	100%	
Examination: 0%						
					100%	

## 5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following 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)
Assignments	Ability to recognize creative methods of visual communication in architectural design; Ability to practice a range of representation by applying mix-media approaches; Demonstrate synthesis and connection of information, data, analysis and knowledge in design representation; Ability to create architectural representation by implementing professional and innovative strategies.	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)
Assignments	Ability to recognize creative methods of visual communication in architectural design; Ability to practice a range of representation by applying mix-media approaches; Demonstrate synthesis and connection of information, data, analysis and knowledge in design representation; Ability to create architectural representation by implementing professional and innovative strategies.	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**

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

Architectural representation, visual communication, mixed media, digital communication, models and simulations, building information management.

**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
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**2.2 Additional Readings**

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

1.	Tufte, E. (1990) <i>Envisioning Information</i> , Cheshire, Conn.: Graphic Press.
2.	Manovich, L. (2001) <i>The Language of New Media</i> , Cambridge, Mass.: MIT Press.
3.	Evans, R. (1995) <i>The Projective Cast: architecture and its three geometries</i> , Cambridge, Mass.: MIT Press.
4.	Beckmann, J. (1998) <i>The Virtual Dimension: architecture, representation, and crash culture</i> , New York: Princeton Architectural Press.
5.	Birn, J. (2006) <i>Digital Lighting and Rendering</i> , Berkeley, CA.: New Riders; London: Pearson Education.
6.	Demers, O. (2002) <i>Digital Texturing and Painting</i> , Indianapolis, IN: New Riders.
7.	Chuck Eastman, Paul Teicholz, Rafael Sacks (2nd edition) <i>BIM Handbook: A Guide to Building Information Modeling for Owners, Managers, Designers, Engineers and Contractors</i> , Wiley
8.	Karen Kensek, Douglas Noble (1st edition) <i>Building Information Modeling : BIM in current and future practice</i> , Wiley