

**City University of Hong Kong
Course Syllabus**

**offered by Department of Architecture and Civil Engineering
with effect from Semester A 2017/18**

Part I Course Overview

Course Title:	Integrated Building Project Development (Architectural Engineering)
Course Code:	CA4527
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:	B4
Proposed Area: <i>(for GE courses only)</i>	<input type="checkbox"/> Arts and Humanities <input type="checkbox"/> Study of Societies, Social and Business Organisations <input type="checkbox"/> Science and Technology
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: <i>(Course Code and Title)</i>	Nil
Precursors: <i>(Course Code and Title)</i>	Nil
Equivalent Courses: <i>(Course Code and Title)</i>	CA4521 Integrated Building Project Development (Building Services Engineering)
Exclusive Courses: <i>(Course Code and Title)</i>	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

The aim of the integrated building project development is to give students the opportunity to demonstrate their ability to develop a building project, as initiated by a client, from its preliminary design phase to construction planning through teamwork with students of other disciplines. In undertaking the course, the student will be able to demonstrate his/her capability of interpreting the client's requirements and transforming them into feasible solution. The student will also develop and demonstrate his/her abilities to apply skills and techniques in architectural engineering and contribute to the accomplishment of the requirements of the project client. In addition, students should be able to communicate with his/her teammates, to comprehend how problems of different disciplines are resolved, and to report and present his/her work as a part of the integrated building project outcome.

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.	Develop criteria based on the client's requirements and develop a conceptual solution based on the criteria;			✓	✓
2.	Define the key issues of own discipline and comprehend other members' disciplines;			✓	✓
3.	Define the utilities' connections, locations and sizes of plant rooms and major pipe/duct shaft, etc. of the architectural engineering systems;			✓	✓
4.	Produce schematic diagrams, major routings and equipment layouts of the architectural engineering systems;			✓	✓
5.	Create practical solution(s) through teamwork with members of other disciplines			✓	✓
* If weighting is assigned to CILOs, they should add up to 100%.		100%			

Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

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	5	
Lectures and team meetings	Students from various disciplines will form groups to carry out the project. A supervisor will be assigned to each group to facilitate lectures and team meetings on a weekly base.	✓	✓	✓	✓	✓	3 hours/week

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

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	5		
Continuous Assessment: 100%							
Oral presentations / written submissions / group discussions	✓	✓	✓	✓	✓	100%	
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, B-)	Fair (C+, C, C-)	Marginal (D)/ Pass (P) on P/F basis	Failure (F)
Oral presentations / written submissions / group discussions	<p>Oral presentation</p> <p>1.1 ABILITY to COLLABRATE to form a teamwork</p> <p>1.2 ABILITY to ORGANIZE the presentation</p> <p>1.3 ABILITY to clearly PRESENT the contents (including the use of English, eye contact, voice, and the use of technology)</p> <p>Written submission</p> <p>2.1 ABILITY to COLLABRATE as a team</p> <p>2.2 ABILITY to ORGANIZE the submission</p> <p>2.3 ABILITY to USE students' discipline specific knowledge in the project</p> <p>2.4 ABILITY to graphically PRESENT the solutions</p> <p>2.5 ABILITY to CONCLUDE the findings</p> <p>Group discussion</p> <p>3.1 ABILITY to COMMUNICATE and ORGANIZE</p> <p>3.2 ABILITY to have INDEPENDENT and CRITICAL THINKING</p> <p>3.3 ABILITY to have CREATIVE ideas</p>	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.)

Teamwork, interpretation of client's brief, problem identification, feasible solution generation, fulfilment of requirements, key details production, report production and presentation

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.	Roy Meador, Guidelines for preparing proposals, 2nd edition, Lewis Publishers, 1991
2.	Ros Jay, How to write proposals and reports that get results, Pitman, 1994
3.	Simon Mort, Professional report writing, Gower, 1992
4.	Institute of Plumbing. 2002, Plumbing Engineering Services Design Guide, Institute of Plumbing, Hornchurch, Essex.
5.	BSI. 2000, BS EN 12056-2 Gravity drainage systems inside buildings. Sanitary pipework, layout and calculation, BSI.
6.	Water Supplies Department. 1995, A Guide to the Preparation of Plumbing Proposals, Water Supplies Department.
7.	Fire Services Department. 2005, Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment, Fire Services Department, Hong Kong.
8.	Loss Protection Council and Fire Protection Association. 2001, LPC Rules for Automatic Sprinkler Installations: including BS 5306, part 2 and LPC technical bulletins 1 to 33, Fire Protection Association, England.
9.	EMSD. 2009, Code of Practice for Electricity (wiring) Regulations, EMSD of HKSAR.
10.	EMSD. 2000, Code of Practice on the Design and Construction of Lifts and Escalators, EMSD of HKSAR.
11.	CIBSE 1997, Code for Interior Lighting, CIBSE, London.
12.	ASD. 2002, Building Services Branch Testing and Commissioning Procedure No. 2 for Electrical Installation in Government Buildings Hong Kong, Building Services Branch of ASD of Hong Kong, HKSAR.
13.	EMSD. 2005, Code of Practice for Energy Efficiency of Air Conditioning Installations, EMSD, HKSAR.
14.	EMSD.2007, Performance-based Building Energy Code, EMSD, HKSAR.
15.	CIBSE. (latest ed.), CIBSE Guides, Vol. A to C, The Chartered Institution of Building Services, London, U.K.
16.	ASHRAE. 2005, ASHRAE Fundamentals Handbook, ASHRAE, Atlanta, U.S.
17.	Ross, Donald E. 2004, HVAC Design Guide for Tall Commercial Buildings, ASHRAE, Atlanta, GA.

