City University of Hong Kong
Course Syllabus

offered by Division of Building Science and Technology
with effect from Semester A 2018/19

Part I Course Overview

Course Title:	Design and Specification
Course Code:	BST22231
Course Duration:	1 semester
Credit Units:	3 credits
Level:	A2
Proposed Area: *(for GE courses only)*	☐ Arts and Humanities ☐ Study of Societies, Social and Business Organisations ☐ Science and Technology
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course aims to equip students with the development of fundamental principles and skills for solving design problems of small-scale buildings; and the understanding of the functions and types of different specifications and prepare specifications for minor building works.

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.	Explain the fundamental concepts and development of architecture.		✓		
2.	Explain key design factors, theories and principles related to new buildings and conservation of buildings.			✓	
3.	Solve design problems of new and/or existing small-scale buildings by providing graphic solutions.			✓	✓
4	Analyse the functions, requirements, types and structures of different specifications.			✓	
5	Develop specifications for minor building works.			✓	✓
		100%			

** If weighting is assigned to CILOs, they should add up to 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: 30 hours (Average class size: Around 100 students)	Lectures are delivered to describe the relevant and essential theories and principles.	✓	✓		✓		2hrs/wk
Workshops 6 hours (3 hours per group) in computer labs, max. group size 50	Workshops are used for students to apply design theories and principles to prepare a brief analytical report of selected building types and to design a small-scale building and to prepare specifications for minor building works. This intends to enhance interactions and group dynamics among students and tutors.			✓		✓	1hr/wk

4. Assessment Tasks/Activities (ATs)

(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: 50%							
Individual assignment is in the form of a mini-project in which students are required to prepare and present the appropriate design solutions for a new or existing building, by means of drawings and brief reports.	✓	✓	✓			30%	
An assignment is in form of a mini-project in which students are required to prepare specifications for minor building works. Students will be assessed individually.					✓	20%	
Examination: 50% (duration: 2.5 hours, if applicable)							
** The weightings should add up to 100%.*						100%	

Note: A student must obtain a minimum mark of 35 in both coursework and examination components and an overall mark of 40 to pass the course.

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)	Failure (F)
1. Analysis-written Reports	Content, structure, analysis, writing skills and referencing	***Excellent*** execution of various criteria as stated.	***Very good to fairly good*** execution of various criteria	***Fair to barely satisfactory*** execution of various criteria	Demonstrating a ***barely sufficient*** understanding and coverage.	***Not able to*** demonstrate a little understanding and less than 40% of coverage.
2. Design drawing	Fulfilling the requirements of design brief and presentation techniques	Fulfilling ***most*** requirements of design criteria with ***excellent to very good*** design and presentation skills.	Fulfilling a ***substantial to large portions*** of requirements of design criteria and ***good*** presentation skills	Fulfilling a ***fair amount*** of requirements of design criteria and completion and fairly good presentation skills.	***Not able*** to fulfil a ***sufficient amount*** of requirements of design criteria and completion and ***little satisfactory*** presentation skills.	***Not able*** to fulfil a ***sufficient*** amount of requirements of design criteria and completion and unsatisfactory presentation skills.
3. Examination	Knowledge of concepts, principles and theories of architectural design and specifications	Demonstration of ***excellent*** execution of such criteria	Demonstration of ***very good to good*** execution of such criteria	Demonstration of ***fair to barely satisfactory*** execution of such criteria	Demonstration of a ***sufficient*** amount of such criteria said	Demonstration of only ***a little bit*** amount of such criteria said

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.)

Architecture and society: Built forms, design features, characteristics, principles, concepts and methods in architectural Practice; Analysis and evaluation criteria of user requirements.
Design process: The design process and constraints from inception to completion; Interior spatial planning and optimisation of space; Applications of design theory, major government regulations and practice to the conservation, adaptation and extension of existing buildings, use and application of computer graphics.
Study of major building types: environmental, socio-cultural, technological and economic factors affecting design decisions of architectural development; Material selection criteria: aesthetic and function requirements, colour, texture and pattern, etc.; Introduction to sustainable architecture.
Standard specifications and codes of practice: Types, use and limitation.
Specifications: Functions and types of specifications; Relationship between specification and other tender documents.
Specification writing: formats, skills and techniques; essential elements in specification.

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.	Ching, Francis (2007) Architecture –form, space and order, Hoboken, NJ: John Wiley & Sons, 3rd Ed.
2.	Chung Wah Nan (1989) Contemporary Architecture in Hong Kong, HK: Joint Publishing.
3.	Clark, Roger & Pause, Michael (1985) Precedents in Architecture, Van Nostrand Reinhold Inc.
4.	Kalin, Mark (2010) Construction Specification Writing: principles and procedures, Hoboken, NJ: John Wiley & Sons, 6th Ed.

2.2 Additional Readings

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

1.	Cherry, E. (1999) Programming for Design: from theory to practice, NY: John Wiley & Sons, Inc.
2.	Ching, F. (1998) A Visual Dictionary of Architecture, NY: Van Nostrand Reinhold Inc.
3.	Roth, Leland (1993) Understanding Architecture: its elements, history and meaning, NY: Harper-Collins
4	Melvin, Jeremy (2005) Understanding Architecture, London: Herbert Press.