

**City University of Hong Kong  
Course Syllabus**

**offered by Department of Architecture and Civil Engineering  
with effect from Semester A 2023/24**

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**Part I Course Overview**

<b>Course Title:</b>	Dissertation - Civil Engineering
<b>Course Code:</b>	CA6535
<b>Course Duration:</b>	2 Semesters + 1 Summer Term (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>	9
<b>Level:</b>	P6
<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

To guide students to develop project theme with useful objectives. To learn relevant research tools in research projects.

### 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.	analyze civil engineering problems in depth;		✓	✓	✓
2.	apply formal techniques in report writing and oral presentation;		✓	✓	✓
3.	propose an innovative and effective solution to a civil engineering problem, which is better than those derived from conventional approaches;		✓	✓	✓
4.	apply stream specific research procedures to arrive at findings.		✓	✓	✓
		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	
Meetings and discussions	Weekly meeting between students and their respective supervisors	✓	✓	✓	✓	
Oral presentation	Interim oral presentation in the first semester and final oral presentation in the second semester	✓	✓	✓	✓	
Report and thesis writing	Submission of interim report in the first semester and a complete thesis in the second semester	✓	✓	✓	✓	

Semester Hours:	hours per week
Lecture/Tutorial/Laboratory Mix:	Lecture (2); Tutorial (2/fortnight); Laboratory (0)
	There is a total of 26 contact hours between supervisor and student.

### 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%						
Interim report and presentation	✓	✓	✓	✓	40%	
Thesis and final oral presentation	✓	✓	✓	✓	60%	
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)
Interim report and presentation	<p>1.1 ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques in the area of civil engineering.</p> <p>1.2 CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a stream specific research topic.</p> <p>1.3 ABILITY to APPLY the scientific techniques in solving theoretical and application problems of a stream specific research topic.</p> <p>1.4 ABILITY to COMMUNICATE and PRESENT scientific information effectively and confidently.</p>	High	Significant	Basic	Not even reaching marginal levels
Thesis and final oral presentation	<p>2.1 ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques in the area of civil engineering.</p> <p>2.2 CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a stream specific research topic.</p> <p>2.3 ABILITY to APPLY the scientific techniques in solving theoretical and application problems of a stream specific research topic.</p> <p>2.4 ABILITY to COMMUNICATE and PRESENT scientific information effectively and confidently.</p>	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)
Interim report and presentation	<p>1.1 ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques in the area of civil engineering.</p> <p>1.2 CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a stream specific research topic.</p> <p>1.3 ABILITY to APPLY the scientific techniques in solving theoretical and application problems of a stream specific research topic.</p> <p>1.4 ABILITY to COMMUNICATE and PRESENT scientific information effectively and confidently.</p>	High	Significant	Moderate	Basic	Not even reaching marginal levels
Thesis and final oral presentation	<p>2.1 ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques in the area of civil engineering.</p> <p>2.2 CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a stream specific research topic.</p> <p>2.3 ABILITY to APPLY the scientific techniques in solving theoretical and application problems of a stream specific research topic.</p> <p>2.4 ABILITY to COMMUNICATE and PRESENT scientific information effectively and confidently.</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.)*

Each student will be assigned under a supervisor based on the stream and interest of the student and each supervisor supervises not more than five students. The exact theme of dissertation is a result of discussion and compromise between the student and the supervisor. The actual topic of research must be in line with the stream taken by the student and problems related to the daily works of students should first be looked into. Each student should submit a dissertation together with an oral presentation in front of an assessment panel.

In addition to the dissertation and oral presentation, students may be required to attend at least 2 research seminars on research tools recommended by the supervisor. Within each semester, at least one research seminar (normally three in Semester A, three in Semester B and one in Semester Summer) will be organised by the department on research tools covering analytical methods, mathematical models, statistics, stochastic models, optimization and computer simulations etc. Supervisors may also recommend students to attend research seminars organised by other departments within the university when such seminars are relevant and useful to the dissertation project.

**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.	Nick Moore (2006) How to do research: a practical guide to designing and managing research project, Facet, London.
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