

# CA4513: FINAL YEAR PROJECT

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## Effective Term

Semester A 2022/23

## Part I Course Overview

### Course Title

Final Year Project

### Subject Code

CA - Civil and Architectural Engineering

### Course Number

4513

### Academic Unit

Architecture and Civil Engineering (CA)

### College/School

College of Engineering (EG)

### Course Duration

Two Semesters

### Credit Units

0-6

### Level

B1, B2, B3, B4 - Bachelor's Degree

### Medium of Instruction

English

### Medium of Assessment

English

### Prerequisites

Nil

### Precursors

Nil

### Equivalent Courses

BC4513/BC4513F Final Year Project

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

The aim of the final year project is to give students the opportunity to demonstrate both their academic quality and their ability to carry out a substantial piece of independent research and/or development work, and in the process to allow them

to discover their expertise in a chosen subject area related to the course. In undertaking the final year project, the student will be able to demonstrate his/her initiative and intellectual achievement, his/her comprehension of the chosen subject matter, and his/her capacity of formulating the theoretical principles in practical situations. The student will also develop and demonstrate his/her ability to manage and present the end product in a precise and coherent manner.

### Course Intended Learning Outcomes (CILOs)

CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	organise and design a substantial piece of individual research and development work;			x
2	critically assess literature and material data relevant to the chosen area;			x
3	pursue and discover an area of academic discipline of the course to substantial depth;			x
4	utilize and apply appropriate theory and techniques developed during the course to the chosen area; and			x
5	communicate effectively in writing a programme of work and, if required, orally defend the final product in a logical, precise and coherent manner.			x

#### 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 real-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.

### Teaching and Learning Activities (TLAs)

TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Meetings and discussions	Regular meeting between students and their respective supervisors	1, 2, 4, 5
2	Oral presentation	Interim oral presentation in the first semester and final oral presentation in the second semester	1, 2, 3, 4, 5
3	Report and thesis writing	Submission of interim report in the first semester and a complete thesis in the second semester	1, 2, 3, 4, 5

**Assessment Tasks / Activities (ATs)**

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Interim report and presentation	1, 2, 3, 4, 5	40	
2	Thesis and final oral presentation	1, 2, 3, 4, 5	60	

**Continuous Assessment (%)**

100

**Examination (%)**

0

**Assessment Rubrics (AR)****Assessment Task**

Interim report and presentation

**Criterion**

1. ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques
2. CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a specific research topic
3. ABILITY to APPLY the scientific techniques in solving theoretical and application problems of a specific research topic
4. ABILITY to COMMUNICATE and PRESENT scientific information effectively and confidently

**Excellent (A+, A, A-)**

High

**Good (B+, B, B-)**

Significant

**Fair (C+, C, C-)**

Moderate

**Marginal (D)**

Basic

**Failure (F)**

Not even reaching marginal levels

**Assessment Task**

Thesis and final oral presentation

**Criterion**

1. ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques
2. CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a specific research topic
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Basic

**Failure (F)**

Not even reaching marginal levels

## Part III Other Information

**Keyword Syllabus**

Students are required to conduct an independent research in accordance with the rules and guidelines stipulated in the FYP guide book.

**Reading List****Compulsory Readings**

Title	
1	Nil

**Additional Readings**

Title	
1	Anderson, J and Poole, M. 2001, Assignment and Thesis Writing, 4th edition, Wiley, Brisbane. [LB2369.A63 2001]
2	Fellows, R. and Liu, M.M. 1997, Research Methods for Construction, 3rd edition, Wiley-Blackwell, Oxford. [TH213.5.F45 2008]
3	Mauch, J.E. and Park, N. 2003, Guide to the Successful Thesis and Dissertation: A Handbook for Students and Faculty, 5th edition, M. Dekker, New York. [LB2369.M377 2003]
4	Naoum, S.G. 2007, Dissertation Research and Writing for Construction Students, Butterworth-Heinemann, Oxford. [LB2369.N26 2007]
5	Preece R.A. 1994, Starting Research: An Introduction to Academic Research and Dissertation Writing, Pinter Pub., London. [LB2369.P69 1994]
6	Swetnam, D. 2000, Writing Your Dissertation: How to Plan, Prepare and Present Successful Work, 3rd edition, How to Books, Oxford. [LB2369.S83 2000]
7	Tam, C.M., Tong, K.L. and Zhang, H. 2007, Decision Making and Operations Research Techniques for Construction Management, City University of Hong Kong, Hong Kong. [TH438.T35 2007]