

# CA4516: 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

4516

### 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

BC4516/BC4516P 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 illustrate 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 employing 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 an 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	Weekly 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**

- 1.1 ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques.
- 1.2 CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a specific research topic.
- 1.3 ABILITY to APPLY the scientific techniques in solving theoretical and application problems of a specific research topic.
- 1.4 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**

- 2.1 ABILITY to EXPLAIN the methodology and procedure with ACCURACY in using the modelling techniques.
- 2.2 CAPACITY for SELF-DIRECTED LEARNING to understand the principles of a specific research topic.
- 2.3 ABILITY to APPLY the scientific techniques in solving theoretical and application problems of a specific research topic.
- 2.4 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

## Part III Other Information

**Keyword Syllabus**

Students are required to undertake individual supervised research and final year project preparation.

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

Title	
1	Nil

**Additional Readings**

Title	
1	Anderson, J and Millicent, P. (2001), "Assignment and Thesis writing", 4th Edition, Wiley, Brisbane, Australia.
2	Fellows, R. and Liu, A.M.M. (1997), "Research Methods for Construction", 1st Edition, Blackwell Science Ltd., London, U.K.
3	Mauch, J.E. and Birch, J. W. (1998) "Guide to the Successful Thesis and Dissertation: A Handbook for Students and Faculty", 4th Edition, Publisher: M. Dekker, New York.
4	Naoum, S.G.(1998), "Dissertation research and writing for construction students", Butterwort-Heinemann, Oxford, U.K.
5	Preece Roy (1994), "Starting Research: An Introduction to Academic Research and Dissertation Writing", Printer Publishers, London.
6	Swernam, Derek (2000), "Writing your dissertation: how to plan, prepare and present successful work", How to Books Oxford Publishers, U.K.