

# CA4516: FINAL YEAR PROJECT

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## Effective Term

Semester A 2025/26

## 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

CA3122 Engineering Analysis, and CA3144 Engineering Surveying, and CA3168 Building Information Modelling for Capital Projects, and CA 3619 Design of Structural Elements, and CA3632 Mechanics of Structures & Materials, and CA3633 Structural Analysis, and CA3634 Reinforced & Prestressed Concrete Structures, and CA3677 Hydraulics and Hydrology, and CA3686 Construction Contract and Management, and CA3687 Soil Mechanics, and CA3704 Construction Engineering. Students must have attempted (including class attendance, coursework submission, and examination) the precursor course(s) so identified.

### 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 DEC-A1 DEC-A2 DEC-A3 app.)		
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.

### Learning and Teaching Activities (LTAs)

	LTAs	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	
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**Assessment Tasks / Activities (ATs)**

ATs	CILO No.	Weighting (%)	Remarks ("- " for nil entry)	Allow Use of GenAI?	
1	Interim report and presentation	1, 2, 3, 4, 5	40	-	No
2	Thesis and final oral presentation	1, 2, 3, 4, 5	60	-	No

**Continuous Assessment (%)**

100

**Examination (%)**

0

**Minimum Continuous Assessment Passing Requirement (%)**

40

**Minimum Examination Passing Requirement (%)**

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.