

CA4749: FINAL YEAR PROJECT

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Final Year Project

Subject Code

CA - Civil and Architectural Engineering

Course Number

4749

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

For BSE Major: CA3122 Engineering Analysis, and CA3712 Electrical Services, and CA3722 HVAC Engineering, and CA3732 Fire Engineering and Piped Services, and CA3747 Building Management, and CA3791 Computer Aided design Practices. For ARCE Major: CA3122 Engineering Analysis, and CA3712 Electrical Services, and CA3722 HVAC Engineering, and CA3732 Fire Engineering and Piped Services, and CA3793 System Modelling for Architectural Engineering. Students must have attempted (including class attendance, coursework submission, and examination) the precursor course(s) so identified.

Equivalent Courses

BC4749/BC4749P Final Year Project

Exclusive Courses

Nil

Part II Course Details

Abstract

The course aims to guide students to develop project theme with useful objectives, to ensure the students to look into a technical problem in depth and make use of research procedures to arrive at the final solution and to improve the technique of oral and written presentations in the technical field.

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 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
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

Part III Other Information

Keyword Syllabus

A research project based on the major module.

Reading List**Compulsory Readings**

Title	
1	Nil

Additional Readings

Title	
1	Anderson, J. & Poole, M. (2001), Assignment and Thesis Writing, 4th ed. Wiley, Brisbane, Australia. (LB2369.A63 2001)
2	Fellows, R. & Liu, A. (2003), Research Methods for Construction, 2nd ed. Blackwell Science, London. (TH213.5.F45 2003)
3	Mauch, J.E. & Park, N. (2003), Guide to the Successful Thesis and Dissertation: A Handbook for Students and Faculty, 5th ed. M. Dekker, New York. (LB2369.M377 2003)
4	Naoum, S.G. (1998), Dissertation Research and Writing for Construction Students, Butterworth-Heinemann, Oxford, UK. (TH213.5.N36 1998)
5	Preece R. (1994), Starting Research: An Introduction to Academic Research and Dissertation Writing, Printer Publishers, London. (LB2369.P29 1994)
6	Swernam, D. (2000), Writing Your Dissertation: How to Plan, Prepare and Present Successful Work, 3rd ed. How to Books, London. (LB2369.S83 2000)