SEE4997: FINAL YEAR PROJECT

Effective Term
Semester A 2022/23

Part I Course Overview

Course Title
Final Year Project

Subject Code
SEE - School of Energy and Environment
Course Number
4997

Academic Unit
School of Energy and Environment (E2)

College/School
School of Energy and Environment (E2)

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
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract
All students are required to complete an individual project under the supervision of academic staff in the School. The aims of the final year project are to give students the opportunity to develop and demonstrate their creativity and ability to carry out

industrially-related or research-type project work, and in the process to allow them to illustrate their expertise in their chosen subject area related to energy and/or energy-related environment. In undertaking the final year project, the student will be able to demonstrate the initiative and intellectual achievement, understanding of the chosen subject matter, and the application of mathematics, science, engineering, economics and policy knowledge in practical situations to arrive at innovative solution. The students will also develop problem-solving skills, demonstrate independence, build self-confidence and ability to make good oral presentations and report writing.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Formulate a main theme of industrially-related or research-type project work upon a practical issue/problem related to energy and/or environment.	6	x		
2	Conduct literature survey and work independently with innovative idea.	5			
3	Utilize appropriate theory, design and conduct experiments, apply numerical analysis tools, analyze and interpret data, etc. to create new knowledge through research, and solve problems in the energy and/or energy-related environmental field using scientific approach.	55	x	x	x
4	Communicate effectively the project process, experience and results in a professional manner, using written, oral and visual media. Discover their strengths, weakness and areas for improvement.	34			

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	- Discuss, discover and select topics, advice on literature review, information collection and project planning. - Carry out modelling, simulations, experiments, field measurements, etc as required and conduct data analysis, etc.	1, 3	3

2	Tutorials and meetings	- Select design/research approach/methodology, analyse the collected materials, laboratory and site survey planning, etc. - Write interim report and final report, and prepare presentations of findings.	2, 4	2

Additional Information for TLAs

Required Students Study Effort (250 hours total): 52 hours guided study; 48 hours literature search and private study; and 150 hours conducting project.

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Scientific/Engineering Work	1, 2, 3	60	
2	Reports	4	25	
3	Oral Presentations	4	15	

Continuous Assessment (%)

100

Examination (%)

0

Examination Duration (Hours)

N/A

Additional Information for ATs

Examination duration: N/A
Percentage of coursework, examination, etc.: 100% by coursework

To pass a course, a student must do ALL of the following:
1) obtain at least 30% of the total marks allocated towards coursework (combination of assignments, pop quizzes, term paper, lab reports and/ or quiz, if applicable);
2) obtain at least 30% of the total marks allocated towards final examination (if applicable); and
3) meet the criteria listed in the section on Assessment Rubrics.

Assessment Rubrics (AR)

Assessment Task

1. Literature review

Criterion

Ability to conduct thorough literature review

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
2. Project work

Criterion
Ability to conduct scientific/engineering work and achieve tasks

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
3. Report writing

Criterion
Ability to present the project well in report writing

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Assessment Task
4. Oral presentation

Criterion
Ability to present the project well in oral presentation

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal level

Part III Other Information

Keyword Syllabus
Students are expected to complete an individual project of energy- or environment- related engineering task. The task can be an analytical study, an experimental investigation, a design project, a research project or a numerical simulation aimed at solving energy- or environment-related issues/problems.

Reading List

Compulsory Readings

	Title
1	Readings recommended by supervisor.

Additional Readings

	Title
1	Nil