

# SEE4998: SPECIAL PROJECT IN ENERGY AND ENVIRONMENT

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## Effective Term

Semester A 2022/23

## Part I Course Overview

### Course Title

Special Project in Energy and Environment

### Subject Code

SEE - School of Energy and Environment

### Course Number

4998

### Academic Unit

School of Energy and Environment (E2)

### College/School

School of Energy and Environment (E2)

### Course Duration

One Semester

### Credit Units

3

### Level

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

### Medium of Instruction

English

### Medium of Assessment

English

### Prerequisites

Nil

### Precursors

To be specified by the supervisor of the project

### Equivalent Courses

Nil

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

This course aims to provide an opportunity for students to carry out a one-semester study of an innovative topic that is related to energy and/or the environment. Through this course, students will learn to work independently (under the supervision of an SEE faculty member), apply and integrate knowledge acquired from other courses, think critically and creatively, and communicate their findings.

### Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Define the scope of a study project	25		x	
2	Conduct independent research and discover new knowledge	25	x	x	
3	Critically analyze and integrate information and data	25	x	x	
4	Effectively communicate their findings	25		x	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	There will be no formal lecture. The students are required to meet regularly with their faculty supervisor and be self-motivated in carrying out their study.	1, 2, 3, 4	Variable

### Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Written proposal	1	10
2	Presentation	2, 3, 4	45
3	Written report	2, 3, 4	45

### Continuous Assessment (%)

100

**Examination (%)**

0

**Examination Duration (Hours)**

N/A

**Additional Information for ATs**

The written proposal will be assessed by the student's supervisor during the early part of the semester. The oral presentation and final written report will be assessed by the student's supervisor and another faculty member according to the comprehensiveness and competence of technical knowledge and understanding of the study topic.

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. Written proposal

**Criterion**

Ability to formulate research questions and master the background of the project

**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**

2. Presentation

**Criterion**

Communicate verbally the rationale to conduct the study, experimental setup, data analysis, major findings, and conclusions

**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

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**Assessment Task**

3. Written report

**Criterion**

Document the rationale to conduct the study, experimental setup, data analysis, major findings, and conclusions

**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

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## Part III Other Information

**Keyword Syllabus**

Current topics in energy and/or environment; independent research

**Reading List**

**Compulsory Readings**

Title	
1	Nil

**Additional Readings**

Title	
1	Nil