

SYE4047: DIRECTED STUDIES

Effective Term

Semester A 2024/25

Part I Course Overview

Course Title

Directed Studies

Subject Code

SYE - Systems Engineering

Course Number

4047

Academic Unit

Systems Engineering (SYE)

College/School

College of Engineering (EG)

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

Nil

Equivalent Courses

ADSE4047 Directed Studies

Exclusive Courses

Nil

Part II Course Details

Abstract

The aim of this course is to strengthen the students' creative, analytical, life-long learning, application and integration skill as well as the ability to work independently with self-motivation through studying a selected subject under the supervision

of a SYE academic member who has the subject knowledge, without attending regular lectures & tutorial/laboratory at the University. An individual student's enrollment in this course is subject to approval and only for special occasions (such as student's normal study path being disrupted by participation in Co-operative Education Scheme and student exchange programme, etc.).

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Discuss the key learning outcomes of selected subject matter on project.	10	x	x	
2	Explain the key aspects of the subject matter	40	x	x	
3	Integrate new knowledge gained produce required outcomes	30	x	x	
4	Communicate a subject area in writing and oral presentation effectively	20		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	Students will participate learning activities outside of campus without any requirement to attend regular lecture/tutorial/laboratory classes.	The LTAs are flexible and depending on nature of the directed studies as specified by the supervisor.	1, 2, 3, 4	N/A

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Proposal/Study Plan	1	10	
2	Written Report/ Assessment	2, 3, 4	70	
3	Poster/Oral Presentation	2, 4	20	e-poster

Continuous Assessment (%)

100

Examination (%)

0

Assessment Rubrics (AR)**Assessment Task**

Coursework

Criterion

Proposal

Report

Poster

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

Additional Information for AR

Students should submit the proposal (10%) to the course examiner within the first week of the semester. Within the last week of the semester, students should submit a report (70%) related to the study and it will be graded by the supervisor and one anonymous assessor within the Department. The course examiner will moderate the grade based on largely the two grades provided by the supervisor and assessor (If there is a large discrepancy between the two, say A and C, the project will be highlighted and moderated by a panel comprised of the course examiner, corresponding programme leader and the UG Teaching Committee Chairperson.). An A0 size poster (20%) shall also accompany the report submission. Alternatively, a student may be asked to make a 15-min presentation followed by 15-min Q & A.

Part III Other Information**Keyword Syllabus**

The course is flexible, and has no specific syllabus. Each student taking this course will be required to undertake an in-depth reading assignment of selected literatures or other kinds of publications dealing with some advanced level topics. Students will conduct intensive literature search about a specific topics related to the management and operation of a manufacturing enterprise, or to the trade and operation analysis of an industry, or the search and applications of a particular technology most suitable for product design, manufacturing and operations as required by the company where the student is working with.

The student will propose the syllabus with their supervisor, and seek endorsement by the SYE4047 course examiner. The supervisor shall not be the same person who supervises the student's final year project in order to avoid double counting of achievement.

Reading List**Compulsory Readings**

Title	
1	Nil

Additional Readings

Title	
1	Nil