

# ADSE4047: DIRECTED STUDIES

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## Effective Term

Summer Term 2023

## Part I Course Overview

### Course Title

Directed Studies

### Subject Code

ADSE - Advanced Design and System 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

Nil

### 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 an ADSE academic member who has the subject knowledge, without attending regular lectures & tutorial/laboratory at the University. An individual student's enrolment 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.

### Teaching and Learning Activities (TLAs)

TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	The TLA is flexible and depending on nature of the directed studies as specified by the supervisor and the work will be carried out outside of campus without any requirement to attend regular lecture/tutorial/laboratory classes.		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

**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

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**Additional Information for AR**

The proposal (10%) should be submitted to the course examiner within the first week of the semester. Within the last week of the semester, a report (70%) related to the study shall be submitted 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. The work may involve 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 syllabus has to be proposed by the student and the supervisor, and endorsed by the ADSE4047 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