

# SYE4068: FINAL YEAR PROJECT

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## Effective Term

Semester A 2024/25

## Part I Course Overview

### Course Title

Final Year Project

### Subject Code

SYE - Systems Engineering

### Course Number

4068

### Academic Unit

Systems Engineering (SYE)

### College/School

College of Engineering (EG)

### Course Duration

Non-standard Duration

### Other Course Duration

Normal Track: 2 semesters

Fast Track: 1 semester

Fast track is normally available to students who repeat the course and opt to continue with the same project and supervisor. This requires the approval of Project Supervisor and Programme/Major Leader.

Other Track: 1 semester and 1 summer term

This is for ASII students and for participating in an academic exchange programme and requires the approval of Project Supervisor.

### Credit Units

0-6

### Level

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

### Medium of Instruction

English

### Medium of Assessment

English

### Prerequisites

Completion of at least 45 CUs of the Major Requirement (excluding College Requirement).

(When the project-topic selection-process is offered early, a conditional participation will be allowed to students which includes the additional CUs in progress).

**Precursors**

Nil

**Equivalent Courses**

SYE4068C Final Year Project / SYE4116 Capstone Project II / ADSE4068 Final Year Project / ADSE4068C Final Year Project / ADSE4116 Capstone Project II

**Exclusive Courses**

Nil

**Part II Course Details****Abstract**

The aim of this course is to strengthen a student's analytical, application and integration skills as well as the ability to work independently through the specification, planning and execution of a project related to the theme of the student's programme/major.

**Course Intended Learning Outcomes (CILOs)**

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Define the nature, aim, scope and importance of a selected problem or project clearly in explicit terms.	15	x	x	x
2	Review the body of knowledge from selected literature to deepen the understanding of the theory or practice relevant to the chosen problem or project.	20	x	x	x
3	Apply such theory or knowledge to formulate and implement the methodology for the chosen problem or project.	45	x	x	x
4	Communicate effectively the project process, experience and results in a professional manner, using written, oral and visual media.	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	T1	Each student shall define, under the supervision of a project supervisor, the nature, aim, scope and importance of a selected problem or project related to the subject areas pertaining to his/her programme/ major.	1	N.A.
2	T2	Each student shall research and review the available body of knowledge and background information needed to achieve the desired objective.	2	N.A.
3	T3.1	Each student shall appraise and select the knowledge, theory or practice learned from literature and develop the appropriate project methodology.	3	N.A.
4	T3.2	Implement the methodology to the chosen problem or project.	3	N.A.
5	T3.3	Analyze the results obtained, draw conclusion and appraise the work done.	3	N.A.
6	T4.1	Document the project process, experience and results in the form of Final Year Project Report according to the given format.	4	N.A.
7	T4.2	Make oral presentation and defense of the project endeavor and outcome.	4	N.A.

**Assessment Tasks / Activities (ATs)**

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Interim report and presentation (due by Semester A)	1, 2, 3, 4	30	

2	Final report and presentation (due by Semester B)	1, 2, 3, 4	70	
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**Continuous Assessment (%)**

100

**Examination (%)**

0

**Additional Information for ATs**

Assessment Process: Students will have to submit an interim report and deliver an interim presentation by the end of Semester A, and then a final report and a final presentation by the end of Semester B. A two-staged Assessment Process will be adopted for each submission. The Supervisor of each Project and another Assessor will independently assess the Project. The assessment weighting of the Supervisor and Assessor is 60% and 40% respectively.

In order to ensure fair assessment standard of all projects, the overall assessment result for each project will be subject to a project assessment review by the Project Moderation Committee led by the Course Examiner in charge of SYE4068 and participated by the Programme/Major Leader and/or Project Coordinator.

**Assessment Rubrics (AR)****Assessment Task**

Interim report and presentation

**Criterion**

Based on submitted written report and oral presentation/discussion.

**Excellent (A+, A, A-)**

Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.

**Good (B+, B, B-)**

Good evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; good evidence of familiarity with literature.

**Fair (C+, C, C-)**

Adequate understanding of the subject; ability to develop solutions to simple problems; adequate evidence of familiarity with literature.

**Marginal (D)**

Sufficient familiarity with the subject matter; basic understanding of issues; marginal evidence of familiarity with literature.

**Failure (F)**

Little evidence of familiarity with the subject matter; weakness in critical and analytic skills; limited, or irrelevant use of literature.

**Assessment Task**

Final report and presentation

**Criterion**

Based on submitted written report and oral presentation/discussion.

**Excellent (A+, A, A-)**

Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.

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**Additional Information for AR**

**Project Selection and Supervision:**

The SYE4068 Project involves substantial investigative or developmental work requiring the application of knowledge related to the main subject areas of the student's programme major. Each student shall work individually, under the supervision of a project supervisor, towards the achievement of the project aim/objectives. The SYE4068 requires and expects the students to:

- define the nature, aim, scope and importance of a selected problem or project related to specific subject areas.
- search the background information and make literature enquiry relevant to the project.
- develop the appropriate project methodology to achieve the defined project aim/objectives.
- implement the project methodology logically and purposefully.
- document the project process, experience and results in a final year project report.
- make oral presentation and defense of the project outcome.

Final year project selection normally takes place over both Semester A and Semester B of each academic year. A list of SYE4068 project titles and their brief description offered by SYE's academic staff will be solicited, consolidated and published by the Course Examiner (in conjunction with the respective Programme/Major Project Coordinators) of the Final Year Projects. Students are also encouraged to propose topics of their own interest and then attempt to develop them into projects of expected standard in consultation with the chosen supervisors. A period of project consultation between all eligible students and prospective supervisors follows leading to eventual project selection.

The SYE4068 project supervisor shall advise and guide the project student throughout the project endeavor and be involved in its final assessment.

Each project student is advised to maintain a project log book and meet his/her project supervisor regularly to report and discuss project progress. An interim project report and presentation will be due in the end of Semester A, which accounts for 30% of the total course marks, to assess the progress made. The student may be asked to defer registration for the following semester if the progress is unsatisfactory in the opinion of the project supervisor.

Each project student is eligible to apply for SYE Laboratory for a small sum of money that can be used for project related consumables.

At the end of the project, each student is required to submit soft copies of his/her final year project report, and orally present and defend the work done and project outcome. The final project presentations shall be organized and coordinated by the SYE4068 Course Examiner and Programme/Major Project Coordinators drawn from each participating programme.

## Part III Other Information

### Reading List

#### Compulsory Readings

Title	
1	Provided by individual FYP supervisor.

#### Additional Readings

Title	
1	Provided by individual FYP supervisor.