Module Code	MEU44E04
Module Name	MEU44E04 Engineering Project Internship
ECTS Weighting	30 ECTS - Derogation
Semester taught	Semester 2
Module Coordinator/s	Anthony Robinson (B and E&M streams), Bruce Murphy (Bio stream)

Module Learning Outcomes with reference to the Graduate Attributes and how they are developed in discipline

The learning outcomes for the EPI module are focused on the implementation of technical knowledge to address engineering problems, communications, group work, professional and social ethics, sustainability, risk assessment and engineering design practice. The project work undertaken as part of the EPI is diverse. As a result, the Learning Agreement/Outcomes will vary, but on completion of the module, students will have achieved several learning outcomes from the following list:

1. Be able to identify and use appropriate mathematical methods, numerical techniques and software tools for application to new and ill-defined engineering problems;
2. Be able to integrate knowledge, handle complexity and formulate judgements with incomplete or limited information;
3. Have the ability to redesign products, processes or systems in order to improve productivity, quality, safety and other desired needs;
4. Have the ability to apply design methods, processes and techniques to unfamiliar, ill-defined problems, involving other disciplines;
5. Be able to design according to codes of practice and industry standards; to identify limitations of codes of practice and the need for their application;
6. Have the ability to investigate and define a need and identify constraints including health, safety and legal issues and the impact of engineering solutions in a societal and environmental context;
7. Be able to make engineering judgements that take cognisance of the social, environmental, ethical, economic, financial, institutional and commercial considerations affecting the exercise of their engineering discipline;
8. Have the ability to consult and work with experts in various fields in the realisation of a product or system;
9. Have knowledge and understanding of concepts from a

range of areas outside engineering;

10.   Be able to select and apply appropriate communication tools and write technical papers and reports;

Graduate Attributes: levels of attainment

To act responsibly - Attained

To think independently - Attained

To develop continuously - Attained

To communicate effectively - Attained

Module Content	The Engineering Project Internship (EPI) module is a practical internship in a professional engineering setting. This setting can be a company, a government institution, research centre, clinic, etc., as deemed appropriate. The School of Engineering has selected hosts for the EPI who are already in collaboration with School of Engineering academics, or are forming new relationships of mutual benefit. An on-line briefing session will be held to provide additional information.
Teaching and Learning Methods	The EPI gives the student the opportunity to translate engineering theory into practice in a professional engineering environment. A central requirement of the EPI is that it must be based around significant engineering research work. The EPI is principally assessed on the basis of defined engineering work. The technical activity should be related to both the student's engineering studies and to the host's activities, and it should constitute a significant body of engineering work at the appropriate level. It should involve tasks and methods that are more appropriately completed in a professional engineering environment and should, where possible, make use of human and technology resources provided by the host. It consolidates the student's prior learning and provides a context for later research studies. The student remains a full-time registered student at Trinity College Dublin during the EPI and this activity is therefore wholly distinct from any industrial interactions which may occur over vacation periods.

Assessment Details **Please include the following:** • **Assessment Component** • **Assessment description** • **Learning Outcome(s) addressed** • **% of total** • **Assessment due date**	Assessment Component	Assessment Description	LO Addressed	% of total	
	Goals report	Detailed description of the internship project to be undertaken with an outline plan (e.g. Gantt chart) for execution	4,10	10%	
	Interim report	Detailed report on project progress, achievements and a plan for completion.	1,2,4, 10	20%	
	Final report/ Oral Presentation	Detailed report on the internship focusing on the project work undertaken. The format is the same as a BAI/ BSc final project report. A reflective diary must be included as an Appendix to the report. An oral presentation is also required.	1,2, 4,5, 6, 10	70%	

Reassessment Requirements

In the event an internship student does not achieve the minimum pass mark (40%) then he/ she will be required to revise and resubmit the Final Report for submission during the reassessment period.

Important Information

Please note this is a pass/ fail module

Students are required to achieve a 2:1 in the S1 Senior Sophister Examinations to go out on Internship in S2

Recommended Reading List

Module Pre-requisite

All 4E4 material is on Blackboard.

This is an optional module in the Senior Sophister (4th) year for students on the MAI track[2]. A minimum II.1 grade must be obtained in the Junior Sophister **annual examinations (first sitting)** to be eligible for participation in this module.

---

[1] Full details of submission dates will be provided closer to the start of the internship.

[2]

Implications	Participation in the EPI can limit MAI module choices for the fifth-year, due to the prerequisite requirements for some modules. Accordingly, it will be necessary to ensure that MAI students who go on Internship in their fourth year will be able to avail of a suitable menu of modules in their fifth-year. It will be allowable in some circumstances for fifth-year students to take up to 10 ECTS of appropriate fourth-year modules. These modules must be chosen to strengthen their chosen area of specialism and, where possible, also support their fifth-year project work. The choice of modules for the fifth-year for all students going on the EPI must be made with the agreement of the Year/Stream Coordinator(s), and the Head of Discipline.
Module Website	See Blackboard Module
Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.	All departments in the Engineering School participate in the 4E4 programme.
Covid-19 Conditions	Internship students are required to adhere to all Covid-19 regulations and working conditions put in place by the host company. It is expected that host companies will have contingency plans in place to support the internship in the event of continuing and/or additional restrictions. The 4E4 coordinators will liaise with the potential host companies.
Module Approval Date	August 2024
Approved by	Anthony Robinson and Bruce Murphy
Academic Start Year	2024
Academic Year of Date	2024/25