

<b>Module Code</b>	CEU44E01
<b>Module Name</b>	4E1 Management for Engineers
<b>ECTS Weighting<sup>1</sup></b>	5 ECTS
<b>Semester taught</b>	Semester 1
<b>Module Coordinator/s</b>	Niamh Harty
<b><a href="#">Module Learning Outcomes</a> with reference to the <a href="#">Graduate Attributes</a> and how they are developed in discipline</b>	<p><b>Learning Outcomes – Section A</b></p> <p>On successful completion of this section of the module, students should be able to:</p> <p>LO1. Define a project</p> <p>LO2. Understand the key aspects of project management including:</p> <ul style="list-style-type: none"> <li>• Team dynamics and organizational behaviour.</li> <li>• Project planning tools and critical path.</li> <li>• Assessment of project feasibility.</li> <li>• Risk, resources and cost.</li> <li>• Alternative models of project management: IT, innovation, new product development.</li> </ul> <p>LO3. Apply project management concepts to a number of hypothetical projects.</p> <p>LO4. Assess and reflect on their use of project management concepts</p>
	<p><b>Learning outcomes – Section B</b></p> <p>On completion of this section of the module, the student should be able to:</p> <p>LO5. Understand the Law of Contract, and be aware of the different types of contract and methods of dispute resolution in use in Ireland today.</p> <p>LO6. Appreciate the importance of meticulous record keeping in project management</p> <p>LO7. Chair and minute a meeting with professionals and other participants</p> <p>LO8. Make decisions about ethical questions</p>

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L09. Understand health and safety legislation, and the importance of safety management

L10. Know about the proper management of subordinate staff and operatives, and current HR trends

L11. Understand the importance of financial matters and the economic and commercial aspects of engineering projects

**Graduate Attributes: levels of attainment**

To act responsibly - Enhanced

To think independently - Enhanced

To develop continuously - Enhanced

To communicate effectively - Enhanced

**Module Content**

This module is divided into two sections. Section A runs for the first six weeks and Section B runs for the last five weeks.

**Section A**

This part of the module aims to introduce students to the concepts and tools of project management. We will use a project management simulation software Management for Engineers to develop the practical skills required to be a successful and effective project manager.

**Module Content – Section A**

- Introduction to project management concepts
- Project definition and organisation
- Project feasibility and evaluation
- Project planning and Critical Path analysis
- Risks, resources and costs
- Team dynamics and organizational behaviour
- Alternative models of project management: IT, innovation, new product development.

**Section B**

This part of the module aims to provide to young graduate engineers some of the management tools they will need early in their careers. Emphasis is placed on ethics, health and safety and environmental issues, people management, accounting principles, and legal concepts

## Module content – Section B

1. Law – general legal concepts, engineering contracts, dispute resolution
2. Professional ethics
3. Office accounting – Bookkeeping, budgets and financial management, current and capital expenditure, company finances
4. Conduct of meetings
5. People management – HR functions, appraisals, staff management, leadership, employment legislation
6. Safety and Health – S&H at Work Act, safety management in industry

## Teaching and Learning Methods

### **This module will be taught and assessed entirely online through**

**Blackboard.** Lectures will be delivered live and students must attend the live sessions. The lectures will also be recorded and available on Blackboard for those whose internet connection does not allow them to attend live.

### **Section A**

Teaching methods include:

- Lectures
- Learning by doing (simulation)
- Case study

This section of the module will be assessed entirely by coursework and this counts for 50% of the final mark for CE4E1. Plagiarism will be taken extremely seriously and all assessments must be submitted via the Turnitin plagiarism detection system.

### **Section B**

The teaching method in this section is by lectures.

Most of the lecturers on this part of the module are leaders from industry who share their experience, knowledge and expertise with the students, giving an up to date insight into current practices. This part of the module will be examined in one two-hour exam. It counts for 50% of the final mark for CE4E1.

<b>Assessment Details<sup>2</sup></b> <b>Please include the following:</b> <ul style="list-style-type: none"> <li>• <b>Assessment Component</b></li> <li>• <b>Assessment description</b></li> <li>• <b>Learning Outcome(s) addressed</b></li> <li>• <b>% of total</b></li> <li>• <b>Assessment due date</b></li> </ul>	Assessment Component	Assessment Description	LO Addressed	% of total	Week due
	Examination	2 hour written examination	5,6,7,8,9,10,11	50%	
	Coursework	Project Management case study (30%)	1,2,3,4	50%	End wk 7
		Reflective essay based on use of project management simulation (10%)			End wk 6
		Score on simulation (10%)			End wk 6

<b>Reassessment Requirements</b>	100% written examination
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<b>Contact Hours and Indicative Student Workload<sup>2</sup></b>	<b>Contact hours: 18 hours (Section A) + 20 hours (Section B)</b>
	<b>Independent Study (preparation for course and review of materials): 35 hours</b>
	<b>Independent Study (preparation for assessment, incl. completion of assessment): 50 hours</b>

<b>Recommended Reading List</b>	<p><b>Recommended Text – Section A</b></p> <ul style="list-style-type: none"> <li>• <i>Project Management</i>, Clifford F Gray and Erik W Larson; McGraw-Hill. Several copies in Hamilton library S-LEN</li> </ul> <p><b>Recommended Text – Section B</b></p> <p>Textbooks and further reading may be suggested by the individual lecturers.</p>
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<b>Module Pre-requisite</b>	
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<b>Module Co-requisite</b>	
<b>Module Website</b>	
<b>Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.</b>	
<b>Module Approval Date</b>	
<b>Approved by</b>	
<b>Academic Start Year</b>	September 2021
<b>Academic Year of Date</b>	2021-22