

<b>Module Title:</b>	Final Year Project
<b>Language of Instruction:</b>	English
<b>Credits:</b>	20
<b>NFQ Level:</b>	8
<b>Module Delivered In</b>	<a href="#">1 programme(s)</a>
<b>Teaching &amp; Learning Strategies:</b>	This module will be completed independently by the student with regular supervision meeting. The student will complete all project work, including project deliverables, a professional write up and a multimedia presentation.
<b>Module Aim:</b>	Give students the opportunity to work independently, under supervision, to gain experience of a large design problem, with all the associated administrative, cost and communication management.
<b>Learning Outcomes</b>	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Develop, manage, and document a defined project using a self-driven process to meet objectives, practicing effective one to one progress reporting and negotiation of deliverables.
LO2	Apply problem solving, decision making and investigatory skills, select principles and techniques for the effective solution of engineering problems.
LO3	Formulate a viable solution, by applying the principles of experimental design and design processes.
LO4	Prepare the project communication (oral and written), with arguments and information set out in a coherent, logical manner
LO5	Research, critically evaluate, reference, and apply information from a variety of sources.
LO6	Manage the safety and ethics in an engineering project and apply codes of practice and regulations where relevant.
LO7	Carry out technical analysis, critically evaluate results and support conclusions with fact, engineering judgement and interpretation.
LO8	Use project planning methodology appropriate to the project.
<b>Pre-requisite learning</b>	
<b>Module Recommendations</b>	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
<b>Incompatible Modules</b>	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b>	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

## Module Content & Assessment

Indicative Content
<b>Project Selection &amp; Action Plan</b> Select a project from a list of industrial standard projects provided, or else propose an appropriate alternative project. Prepare a working specification and propose an action plan, in consultation with the project supervisor
<b>Investigation &amp; Research</b> Investigate, research, collect, collate and analyse relevant information
<b>Development of a Proposed Solution</b> Assess the merits of proposed solutions and present reasoned arguments to support a preferred solution
<b>Design, Implementation &amp; Testing</b> Design, implement and test the preferred solution
<b>Evaluation &amp; Costing of the Preferred Solution</b> Thoroughly evaluate the performance of the implementation and research its production costs
<b>Presentation Development</b> Prepare and deliver two presentations and demonstrations of the design to supervising staff. Coherently answer technical questions relating to the project
<b>Project Log</b> Maintain a detailed log of actions, proposed and executed, issues arising, discussions with supervisor and others, and all aspects of the project
<b>Investigation &amp; Documentation of Commercial Aspects</b> Commercial issues, such as the market size, competition and financial viability of implementing the project commercially should be investigated. In particular, this should include patent issues
<b>Report Preparation</b> A report should be prepared to document the activity undertaken throughout the project

Assessment Breakdown	%
Project	100.00%

No Continuous Assessment

Project				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Interim report and presentation (to include introduction, background, progress to date, ethical considerations, project plan/Gantt chart)	1,2,3,4,5,6,7,8	15.00	n/a
Project	System development, implementation and test	1,2,3,4,5,6,7,8	40.00	n/a
Project	Final technical report	1,4,7,8	30.00	n/a
Project	Final presentation and interview	1,2,3,4,5,6	15.00	n/a

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

**Module Workload**

<b>Workload: Full Time</b>		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Laboratory	Every Week	5.00
Independent Learning	Every Week	13.00
Total Hours		18.00

**Module Delivered In**

Programme Code	Programme	Semester	Delivery
CW_EEROB_B	<a href="#">Bachelor of Engineering (Honours) in Robotics and Automated Systems</a>	7	Mandatory