Module Title:	Development Project
Language of Instruction:	English

Credits:	5

NFQ Level:	8

Module Delivered In	No Programmes

Teaching & Learning Strategies:	A critical part of the Team project is the interaction between the project supervisor and the student(s). Students are expected to attend in the laboratory. During this time, they will participate, under supervision, in group and individual learning in order to complete the assigned project. Where students fail to attend, vital skills necessary to complete the project will not be obtained

Module Aim:	To give the students the knowledge, competencies and skills to plan, implement and execute work effectively as a team member in a virtual industrial environment. Students have to work together and carry out individual tasks upon which the whole team is dependent

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Prepare a literature search and arrange a project plan for the team brief
LO2	Plan, manage and organize work effectively as a team member.
LO3	Design the necessary hardware / software for the assigned team element of the prototype
LO4	Evaluate the team element and the overall prototype design using CAD tools
LO5	Demonstrate self-direction, team organization and problem solving in the formal report
LO6	Assess ethical issues in relation to the team conduct and prototype design

Pre-requisite learning
Module Recommendations   *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules   *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements   *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

Module Content & Assessment

Indicative Content
Team structure Team members will be assigned responsibilities for the following key areas: Team leader (rotating position between team members) Propulsion system Aerodynamics Control system Software / Hardware design System Integration Testing Quality control / budget costs
Project Brief Initially, the team will be presented with a conceptual design and a budget. The team will have to produce a Project Specification / Objectives Literature search Project management plan Address any ethical issues in relation to the design The supervisor will discuss the assessment plan with the team to ensure a clear understanding
Project Plan The team will select the plan which meets the objectives within the time allowed for the project
Preliminary design CAD tools will be used for simulation in the development of the design Design software will be used to produce any working drawings for the prototype. Software tools will be used to generate the program design Suitable application software will be used to monitor costs throughout the project
Prototype Development The actual prototype will be developed and any issues with Hardware / Software interfaces addressed
Test Testing of prototype
Presentation The student will be required to make a presentation on the progress of his / her project every two weeks. A final presentation by the team or member on the completed design
Log Book A log of student activity will be maintained throughout the period of the project
Thesis Formal report on the final project

Assessment Breakdown	%
Project	100.00%

No Continuous Assessment

Project				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	The final report is assessed on: Conducting a literature survey using available resources both internal and external to the college. Carrying out a project plan. Initial concept design, system design, and CAD drawings for aviation project. Manufacture, validating and testing through out the process to meet the specification.. Effort and participation as a team, design innovation and skill in report writing.	1,2,3,4,5,6	70.00	n/a
Project	Assessment Description % of Total Mark Initial presentations: 5%, Interim presentations 15%. Final presentation 10%. All presentations are made in front of a panel of academic staff and their peers. The academic staff assess the presentation based on structure, time management and delivery.	2,4,5	30.00	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

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Independent Learning Time	15 Weeks per Stage	4.00
	Total Hours	60.00