

Module Title:	Industrial Studies
Language of Instruction:	English
Credits:	5
NFQ Level:	7
Module Delivered In	10 programme(s)
Teaching & Learning Strategies:	Teaching will be conducted using lectures, tutorials, exercises and group discussions.
Module Aim:	To introduce the students to the industrial environment of their chosen profession and the roles & responsibilities of engineers.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Demonstrate an in depth knowledge of the various sectors of Irish, European and Global industries and common industry practices
LO2	Apply areas of operations management relevant to the engineering profession.
LO3	Interpret management structures and functions within an organisation and make informed decisions required in a management environment.
LO4	Work as an individual and in a team and communicate effectively through the preparation and delivery of reports and presentations
LO5	Evaluate the broader context in which engineering disciplines operate and critique the responsibilities of the engineering profession towards the social, ethical and natural environments
Pre-requisite learning	
Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements <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

Industry knowledge

Historical development of the relevant industry. Current trends. Sectors within industry. Regulatory authorities and standards.

Ethics

Roles and responsibilities in industry. Code of ethics. Case studies. Intellectual property. Sustainability.

Operations management

Financial & scheduling tools (e.g. NPV, critical path analysis). Production planning. Inventory planning & control. JIT operations. Product life cycle. Failure, reliability, availability. Maintenance.

Management

Job of management; Management functions; Organisation; Communication; Human relationships; Leadership; Motivation; Team work; Planning; Decision making

Personal Development

Keeping up to date, currency; Personal goals and sources of learning to achieve those goals; Professional institutions relevant to the engineering industries and the criteria for membership; Social psychology; Engineering Ethics Dissemination of Information; Writing reports and referencing the research using the Harvard Referencing Style; Presenting Entrepreneurship Interview skills

Assessment Breakdown

%

Continuous Assessment

100.00%

Continuous Assessment

<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Assessment Date</i>
Other	Students will prepare reports and presentations on specific assignments.	1,2,3,4	60.00	n/a
Written Report	A final written assignment will test the student's ability to demonstrate the learning outcomes.	1,2,3,5	40.00	n/a

No Project

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		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	2.00
Independent Learning	15 Weeks per Stage	6.73
	Total Hours	125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_EEAER_B	Bachelor of Engineering (Honours) in Aerospace Engineering	6	Mandatory
CW_EFARG_B	Bachelor of Engineering (Honours) in Agricultural Systems Engineering	6	Mandatory
CW_EESYS_B	Bachelor of Engineering (Honours) in Electronic Engineering	6	Mandatory
CW_EMMEC_B	Bachelor of Engineering (Honours) in Mechanical Engineering	6	Mandatory
CW_EEROB_B	Bachelor of Engineering (Honours) in Robotics and Automated Systems	6	Mandatory
CW_EFARG_D	Bachelor of Engineering in Agricultural Systems Engineering	6	Mandatory
CW_EEACS_D	Bachelor of Engineering in Aircraft Systems	6	Mandatory
CW_EEEEN_D	Bachelor of Engineering in Electronic Engineering	6	Mandatory
CW_EEMEC_D	Bachelor of Engineering in Mechanical Engineering	6	Mandatory
CW_EEROO_D	Bachelor of Engineering in Robotics and Automated Systems	6	Mandatory