APPROVED

ENGR E8019: Project Engineering

Module Details

Module Code:	ENGR E8019
Full Title:	Project Engineering APPROVED
Valid From::	Semester 1 - 2014/15 (September 2014)
Language of Instruction:	English
Duration:	2 Semesters
Credits::	10
Module Owner::	Paul Durcan
Departments:	Unknown
Module Description:	Integrating Business and Engineering considerations, to include current engineering methods and business wide product development

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	**Module Learning Outcome Description**
MLO1	Research, examine and consider the market extent, opportunity and obstacles associated with a particular idea.
MLO2	Identify the legal and financial implications and considerations associated with a particular opportunity.
MLO3	Evaluate the business impact of the standards, Health & safety and environmental requirements.
MLO4	Consider, compare, propose an appropriate structure to implement the opportunity.
MLO5	Execute a project using a industrial standard Stage Gate model
MLO6	Evaluate a new product in regard to necessary directives and standards inorder to CE mark the product
MLO7	Present and Report in a professional manner.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).*
No recommendations listed

Module Indicative Content
Components Parts, Devices, Systems
Products Existing and newly developed
Manufacturing Manufacturing Processes
IT Information Management, Mind mapping, Evernote
Problem Technical Problem: Example Environmental
Legal Legal considerations, Business organisation and structure, contracts, intellectual property
Standards Implications of relevant technical standards, health & safety and environmental considerations
Management Management possibilities, evaluation, proposals
Presentation Presentation of idea - technical & business
Report Comprehensive Report - technical & business
Market Market research, extent, challenge, target market, competitor analysis, strateg planning.
Workshops A series of 2 hour workshops will be presented by the Regional Development Centre including : Sales Planning, Financial Planning, Presentation Skills, Negotiation Skills
Product Design Product Design Cycle, Design theory, Innovative design, Design tools
CE Marking Standards, EU Directives, Steps to CE marking products
Manufacturing Lead manufacturing, Toyota production system
Stage Gate Product design Gate Models, ABB Cate Model

Module Assessment

Assessment Breakdown	%
Course Work	100.00%

Module Special Regulation

Assessments

Full Time On Campus

Course Work			
Assessment Type	Written Report	**% of Total Mark**	10
Marks Out Of	0	**Pass Mark**	0
Timing	Week 4	**Learning Outcome**	2,3,4,7
Duration in minutes	0		
Assessment Description Technical			
Assessment Type	Written Report	**% of Total Mark**	10
Marks Out Of	0	**Pass Mark**	0
Timing	Week 7	**Learning Outcome**	2,3,4,7
Duration in minutes	0		
Assessment Description Technical			
Assessment Type	Written Report	**% of Total Mark**	10
Marks Out Of	0	**Pass Mark**	0
Timing	Week 10	**Learning Outcome**	2,3,4,7
Duration in minutes	0		
Assessment Description Technical			
Assessment Type	Other	**% of Total Mark**	15
Marks Out Of	0	**Pass Mark**	0
Timing	Week 13	**Learning Outcome**	3,4
Duration in minutes	0		
Assessment Description Concept Development / Evaluation			
Assessment Type	Other	**% of Total Mark**	5
Marks Out Of	0	**Pass Mark**	0
Timing	Week 13	**Learning Outcome**	1
Duration in minutes	0		
Assessment Description Engineering Notebook			
Assessment Type	Group Project	**% of Total Mark**	20
Marks Out Of	0	**Pass Mark**	0
Timing	Week 22	**Learning Outcome**	1,2,3,4,7
Duration in minutes	0		
Assessment Description Gate Model Report based on a given product, that requires to be developed, manufactured, tested and supported in the market			
Assessment Type	Oral Examination/Interview	**% of Total Mark**	10
Marks Out Of	0	**Pass Mark**	0

Timing	Week 30	**Learning Outcome**	1,2,3,4,5,6,7
Duration in minutes	0		

Assessment Description
Interview based on content of Gate model report

Assessment Type	Written Report	**% of Total Mark**	20
Marks Out Of	0	**Pass Mark**	0
Timing	Week 30	**Learning Outcome**	2,3,6,7
Duration in minutes	0		

Assessment Description
CE marking report for a given product

No Project

No Practical

No Final Examination

Reassessment Requirement

No repeat examination
Reassessment of this module will be offered solely on the basis of coursework and a repeat examination will not be offered.

Reassessment Description
Student may be required to complete one or more or the assignments

Module Workload

Workload: Full Time On Campus					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Practical	Contact	Research online, application of theory	Every Week	1.00	1
Independent Study	Non Contact	Research online, library	Every Week	5.00	5
Lecture	Contact	Theory	Every Week	1.00	1
Tutorial	Contact	Group based tutorial	Every Week	1.00	1
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	3.00

This module has no Part Time On Campus workload.

Module Resources

Recommended Book Resources

Brannick, Teresa and Roche, William k. (1997), Business Research Methods: strategies, techniques and sources, Oak Tree Press, Dublin, [ISBN: 1860760007].

Proctor, Tony. (1997), of Marketing Research, Pitman, London, [ISBN: 0273625314].

Malhotra, Naresh K. (1999), Marketing Research: an applied orientation, 3rd. Prentice Hall, New Jersey, [ISBN: 0130830445].

Malhotra, Naresh K and Birks, David F. (2005), Marketing Research: an applied approach, 2nd. Financial times/Prentice Hall, Harlow, England, [ISBN: 0273695304].

Domegan, Christine and Fleming, Declan. (2003), Marketing Research in Ireland: theory and practice, 2nd. Gill & McMillan, Dublin, [ISBN: 071713489X].

Ghauri, Perez N, Gronhaug, Kjell, Kristianslund, Ivar. (1995), Research Methods in Business Studies: apractical guide, Prentice Hall, New York, [ISBN: 0130157104].

Giegold, William C. (1992), Practical Management Skills for Engineers and Scientists, Krieber Pub. Co., Malabar, Florida, [ISBN: 0894646540].

Bergen, S, A. (1990), R & D Management: managing projects and new products, New rev. ed.. Blackwell, Oxford, UK, Cambridge, Mass, USA, [ISBN: 0631174478].

Howells, John. (2005), the Management of innovation and technology: the shaping of technology and institutions of the market economy, Sage, London, [ISBN: 076197024].

Roche, John G. (1989), Product Liability: the European management and quality clallenge, IFS, Kempston, [ISBN: 1854230611].

Farag, MahmoundM. Materials selection for Engineering Design, [ISBN: 0135751926].

This module does not have any article/paper resources

This module does not have any other resources