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MODULE DESCRIPTOR

Module Title

Engineering Project Management

Reference	ENM230	Version	7
Created	August 2021	SCQF Level	SCQF 11
Approved	April 2006	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

To promote an understanding of the principles, fundamental concepts and strategies of project management, and of the benefits to organisations. To enable learners to develop and demonstrate a working knowledge of essential project planning and execution processes.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Identify and critically review the project life-cycle phases, processes, tools and techniques in the context of the broader environment in which the project takes place.
2	Develop a critical awareness of and be able to evaluate the issues involved in the development of project planning and demonstrate an understanding of the application of change control and change management techniques.
3	Apply tools and techniques to analyse project objectives of cost, quality and time and define the correlation between the objectives.
4	Apply project planning skills and knowledge and develop a project plan based on a case project applicable to the energy sector.
5	Critically evaluate the benefits and limitations of project management and the use of appropriate tools and techniques in the management and control of an engineering project.

Indicative Module Content

Project engineering. Fundamental activities that take place in project management inside and outside engineering companies. Project life-cycle. Project management leadership models. Planning and control concepts, methodologies and practices. CTRs, development and control. Critical path analysis methods. Planning and execution strategies. Goal and objective setting. Scope definition. Change control & management. Clarification processes, debottlenecking. Feedback paths. Knowledge management and organisational learning processes will be discussed. Risk assessment strategies for environment, project definition, scheduling and estimating. Gantt charts, PERT, SWOT and PEST processes will be discussed.

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Module Delivery

Emphasis is placed on an integrative approach to communication and learning, with student involvement fostered through discussion and group working. Full Time will include formal input, exercises, case studies, group work and directed self study. Online Learning will involve paper and web based materials and supported with group work and discussion forums and directed self study.

Indicative Student Workload	Full Time	Part Time
Contact Hours	48	54
Non-Contact Hours	102	96
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	30%	Outcomes Assessed:	2, 3
Description:	Group coursework.				

Component 2

Type:	Coursework	Weighting:	70%	Outcomes Assessed:	1, 4, 5
Description:	Individual coursework.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The module has 2 components and an overall grade D is required to pass the module. The component weighting is as follows: C1 is worth 30% and C2 is worth 70%.

		Coursework:						
		A	**B**	**C**	**D**	**E**	**F**	**NS**
Coursework:	**A**	A	A	B	B	B	E	
	B	B	B	B	C	C	E	
	C	B	C	C	C	D	E	
	D	C	C	D	D	D	E	
	E	D	D	D	E	E	E	
	F	E	E	E	E	F	F	
	NS	Non-submission of work by published deadline or non-attendance for examination						

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Module Requirements

Prerequisites for Module	Normally a UK 2.2 honours degree or above, in Engineering or a related discipline. Proficiency in English language for academic purposes, or IELTS score of 6.5 or above.
Corequisites for module	None.
Precluded Modules	This module is not suitable for students following an MSc in Professional Studies programme unless they meet the entry qualifications stipulated in the University Regulations on admission and the prerequisites above.

INDICATIVE BIBLIOGRAPHY

1	BURKE, R., 2013. Project Management: Planning & Control Techniques. 5th ed. Chichester: Wiley.
2	Project Management Institute, 2021. The Standard for Project Management and a Guide to the Project Management Body of Knowledge. 7th ed. Pennsylvania, USA. Project Management Institute.
3	LOCK, D., 2020. Project Management. Routledge.
4	KERZNER, H., 2017. Project Management: a Systems Approach to Planning, Scheduling, and Controlling. 12th ed. Hoboken: John Wiley.
5	ALAM, M.D. and GU?HL, U.F., 2016. Project-management in practice : a guideline and toolbox for successful projects. Berlin, Germany: Springer.
6	NICHOLAS, J. M and STEYN, H., 2017. Project Management for Engineering, Business and Technology: Principles and Practices. 5th ed. Elsevier?s Science & Technology.
7	Society of Petroleum Engineers papers, appropriate websites and journal articles.