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MODULE DESCRIPTOR

Module Title

Engineering Project Management

Reference	ENM230	Version	6
Created	February 2020	SCQF Level	SCQF 11
Approved	April 2006	SCQF Points	15
Amended	June 2020	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:	Component 1 is assessed by a group work presentation developing the project conceptual design.				

Component 2

Type:	Coursework	Weighting:	70%	Outcomes Assessed:	1, 4, 5
Description:	Component 2 is assessed by an individual report on the design work case project.				

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MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

Module Pass Criteria: In order to pass the module, students should achieve a mark of at least 40% in each component (which has a weighting of 30% or more) and an overall grade of D or greater. Non Submission for any assessment component will result in an overall grade of NS for the module. Note: - For a module with a single assessment component the Overall Mark in percent is percentage mark for that component. - For a module with multiple assessment components the Weighted Overall Mark in percent is the weighted sum of the percentage marks for each component, the weightings being described in the Module Descriptor. - If a candidate attains a mark of less than 40% in any component (which has a weighting of 30% or more) the candidate is deemed to have failed that component. - If a candidate attains an E, F or NS Overall Grade, the candidate is deemed to have failed the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	Greater than or equal to 70%
B	In the range 60% to 69%
C	In the range 55% to 59%
D	In the range 50% to 54%
E	In the range 40% to 49%
F	Less than 40%
NS	Non-submission of work by published deadline or non-attendance for examination

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.