MODULE DESCRIPTOR

Module Title

Delivery of Maintenance and Inspection for Asset Integrity Management

Reference	ENM311	Version	6
Created	August 2021	SCQF Level	SCQF 11
Approved	March 2015	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

Enable the student to identify, justify and apply the techniques that are used to ensure quality of maintenance task delivery, and to optimise the overall effeciency of Maintenance and Turnaround activities

Learning Outcomes for Module

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

1	Critically evaluate maintenance management practices, and develop benchmarking, KPIs and other metrics to derive performance improvement.
2	Identify optimal maintenance task delivery factoring in planning techniques, turnarounds and contractors.
3	Critically review management controls needed for plant integrity protection establishing details of maintenance processes to ensure an effective maintenance process is developed.

Indicative Module Content

Data and Information Systems: - Data collection and analysis to support Optimisation Maintenance task delivery - Computerised Maintenance Management Software Maintenance: - Development of Maintenance Strategy - Development of Spare parts requirements - Maintenance Planning - Use and Management of Maintenance Turnarounds - Insourcing and Outsourcing of Maintenance activities - Use of Contractors and Contract styles - Financial Optimisation of Maintenance activities Quality Assurance: - QA of Maintenance tasks - Technician Competence

Module Delivery

DISTANCE LEARNING: The module is delivered by online lectures, interactive group work, case study tutorials and directed self-study.

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Indicative Student Workload	Full Time	Part Time
Contact Hours	N/A	23
Non-Contact Hours	N/A	127
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	N/A	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:	50%	Outcomes Assessed:	3
Description:	Report based on a case study.				

Component 2

Type:	Examination	Weighting:	50%	Outcomes Assessed:	1, 2
Description:	Closed book examination.				

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 50% and C2 is worth 50%.

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

Module Requirements

Prerequisites for Module	Normally a UK honours degree, or equivalent, in Engineering or related discipline at class 2.2 or above and proficiency in English language for academic purposes (IELTS minimum score of 6.5 or equivalent).
Corequisites for module	None.
Precluded Modules	None.

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INDICATIVE BIBLIOGRAPHY

1	Physical Asset Management Handbook - Mitchel, John Steward; Hickman, John E., Amadi-Echendu; Joe E., Clarion, 2007
2	European Standard EN13306:2001, 'Maintenance Terminology'
3	Making Common Sense Common Practice, Ron Moore, Elsevier Books. (Available as RGU ebook)
4	Turnaround, Shutdown and Outage Management, Tom Lenahan, Elsevier, ISBN 13:978-0-7506-6787-6. (Available as RGU ebook)
5	Managing Maintenance Resources & Strategic Maintenance Planning, Anthony Kelly, Elsevier Books, ISBN 13:978-07506-6993-1. (Available as RGU ebook)