

MODULE DESCRIPTOR

Module Title

Corrosion Management

Reference	ENM309	Version	7
Created	August 2021	SCQF Level	SCQF 11
Approved	August 2011	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

This module provides the student with the ability to identify, justify and apply techniques for effective corrosion management.

Learning Outcomes for Module

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

- 1 Critically review the relation between corrosion engineering, corrosion management and asset integrity management.
- 2 Identify and apply relevant corrosion management techniques.
- 3 Develop corrosion management strategies taking into account technical feasibility and commercial viability.

Indicative Module Content

Corrosion Management Concept - Implications of corrosion Relationship between corrosion engineering, corrosion management and integrity management. Techniques for mitigating corrosion Corrosion Management Process - Integrity reviews Regular performance monitoring Effective corrosion assessment CORROSION MANAGEMENT PRODUCT Corrosion management strategies Corrosion control matrices Corrosion KPI Procedures, Databases & Registers Benefits of Corrosion Management - Consequences of failure Integrity & Financial benefits Personnel safety Environmental protection Optimisation of costs Corrosion Management Shortcomings - Troubleshooting guide Mistakes from past experiences Documentation, training, communication Procedures

Module Delivery

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

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:	1
Description:	Coursework.				

Component 2

Type:	Examination	Weighting:	50%	Outcomes Assessed:	2, 3
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:						NS
		A	B	C	D	E	F	
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.

INDICATIVE BIBLIOGRAPHY

- 1 Recommended practice for corrosion management of pipelines in oil and gas production and transportation (EFC 64) Edited by B. Kermani and T. Chevrot., February 2012, 88pp paperback, ISBN: 978 1 907975 33 2
- 2 Corrosion under insulation (CUI) guidelines (EFC 55) (under revision)., Edited by S. Winnik. March 2008, 176pp hardback, ISBN 978 1 84569 423 4.
- 3 Expert overview Corrosion management in the twenty-first century British Corrosion Journal (1995), pp. 192-198, doi:10.1179/000705995798113925 by K. R. Trethewey, P. R. Roberge
- 4 Corrosion Management: A Guide for Industry Managers. Javaherdashti , Reza. 2011. Corrosion Reviews. 21(4): 275-358. Retrieved 7 Sep. 2013, from doi:10.1515/CORRREV.2003.21.4.311
- 5 "A Framework for the Management of Ageing of Safety Critical Elements Offshore". Sharp, John V., Edmund G. Terry, and John Wintle. ASME, 2011.
- 6 "Industry Practices for the Management of Ageing Assets Relevant to Offshore Installations". Sharp, John V., John B. Wintle, Carol Johnston, and Alex Stacey. ASME, 2011.
- 7 Review of Corrosion Management for Offshore oil and gas processing, HSE., Offshore Technology Report, 2001/044.