

Liverpool John Moores University

Title: OFFSHORE ENGINEERING
Status: Definitive
Code: **7037ENG** (106103)
Version Start Date: 01-08-2012

Owning School/Faculty: Engineering
Teaching School/Faculty: Engineering

Team	Leader
Andrew Cunningham	Y

Academic Level: FHEQ7
Credit Value: 20.00
Total Delivered Hours: 39.00
Total Learning Hours: 200
Private Study: 161

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	24.000
Tutorial	12.000

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination	70.0	3.00
Essay	AS2	Environmental Factors Essay	30.0	

Aims

To provide advanced understanding of offshore installation types and knowledge of engineering plants employed in offshore installations from operational and safety aspects.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate the application of offshore installation and offshore installation types.
- 2 Demonstrate the principles of engineering plants' application and requirements in offshore installations.
- 3 Evaluate the environmental factors affecting the design of offshore installations.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Examination	1	2
Environmental Factors Essay	3	

Outline Syllabus

Introduction to the offshore oil and gas industry.

General engineering knowledge of offshore installations and the application of installations such as FPSO, Floating unit, Jack-up unit, Semi-submersible, platforms, etc.

Engineering plant and systems required to support the activities of an offshore installation, (i.e. Offshore power plant, propulsion systems/methods, mooring and dynamic positioning systems, safety systems, auxiliary plants and equipment, oil and gas recovery plants and activities, etc.).

Well structure.

Waste products and their treatment.

Decommissioning of spent wells and obsolete installations.

Offshore safety

Learning Activities

Formal lectures, Tutorials, Videotapes, Computer simulation.

References

Course Material	Book
Author	Mather, A
Publishing Year	2011
Title	An Introduction to Offshore Engineering
Subtitle	
Edition	2nd
Publisher	Witherby & Co
ISBN	1-85609-186-4

Course Material	Book
Author	Chakrabarti, S K

Publishing Year	2005
Title	Handbook of offshore engineering
Subtitle	Vol. 1 & 2
Edition	
Publisher	UEG Offshore Research
ISBN	0 86017 231 7

Course Material	Book
Author	Inst. of Civil Engineers
Publishing Year	1974
Title	Offshore Structures; Conference proceedings
Subtitle	
Edition	
Publisher	Inst. of Civil Engineers
ISBN	

Course Material	Book
Author	Graff, W J
Publishing Year	1981
Title	Introduction to Offshore Structures, Design, Fabrication, Installation
Subtitle	
Edition	
Publisher	Gulf Publishing Company
ISBN	0 87201 694 3

Course Material	Book
Author	P. Gee
Publishing Year	2000
Title	A Review of Global Offshore Environmental Regulation and Practice
Subtitle	
Edition	
Publisher	IMarEST
ISBN	

Course Material	Journal / Article
Author	IMarEST
Publishing Year	
Title	Journal of Offshore Technology :Six issues per year
Subtitle	
Edition	
Publisher	IMarEST
ISBN	

Course Material	Book
Author	UEG

Publishing Year	1994
Title	Design of tubular joints for Offshore Structures
Subtitle	
Edition	
Publisher	
ISBN	0 7277 0008 1

Notes

The module is designed to provide advanced understanding of various offshore installation types and the engineering plants required operating these installations.