

### Summary Information

<b>Module Code</b>	7008MSC
<b>Formal Module Title</b>	Offshore Engineering
<b>Owning School</b>	Engineering
<b>Career</b>	Postgraduate Taught
<b>Credits</b>	20
<b>Academic level</b>	FHEQ Level 7
<b>Grading Schema</b>	50

### Module Contacts

#### Module Leader

Contact Name	Applies to all offerings	Offerings
Milad Armin	Yes	N/A

#### Module Team Member

Contact Name	Applies to all offerings	Offerings
Musa Bashir	Yes	N/A

#### Partner Module Team

Contact Name	Applies to all offerings	Offerings
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### Teaching Responsibility

LJMU Schools involved in Delivery
Engineering

### Learning Methods

Learning Method Type	Hours
Lecture	22
Tutorial	11

### Module Offering(s)

Offering Code	Location	Start Month	Duration
SEP-CTY	CTY	September	12 Weeks
SEP_NS-CTY	CTY	September (Non-standard start date)	12 Weeks

### Aims and Outcomes

<b>Aims</b>	To provide advanced understanding of offshore installation types and knowledge of offshore installations from an operational and safety aspect.
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### Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Demonstrate the application of offshore installation and offshore installation types.
MLO2	Demonstrate the principles of engineering plants' application and requirements in marine and offshore installations.
MLO3	Critically evaluate the changes in the global oil, gas and energy markets and understand the impact on the marine and offshore engineering industry.
MLO4	Demonstrate and understanding and an ability to quantify the environmental loads experienced by an offshore structure.

### Module Content

Outline Syllabus
Introduction to the offshore oil and gas industry. General engineering knowledge of offshore installations and application of installations. With emphasis on fixed and floating offshore oil and gas facilities, renewable energy platforms and port infrastructures (jetties, wharves and docks). Interactions between external loading and structural behaviours of marine structures, concepts of fluid-structure interaction and general dynamics of marine systems. Engineering plant and systems required to support the activities on an offshore installation. Drilling, well structure, well drive mechanisms and injection methods. Production and processing of oil and gas. Environmental factors and environmental loading.

### Module Overview

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

### Additional Information

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

### Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Centralised Exam	Exam	70	2	MLO2, MLO1
Portfolio	Portfolio	30	0	MLO3, MLO4