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## MODULE DESCRIPTOR

### Module Title

#### Facilities

Reference	ENM202	Version	8
Created	January 2017	SCQF Level	SCQF 11
Approved	April 2006	SCQF Points	15
Amended	September 2017	ECTS Points	7.5

### Aims of Module

This module aims to develop an ability to identify and appraise the requirement for various components of surface and subsea petroleum production facilities and, working with other specialists as necessary, the ability to optimise the design and performance of both the individual components and the full system over the life-cycle of the facility.

### Learning Outcomes for Module

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

- 1 Evaluate the selection and combination of components for production facilities, either onshore, offshore or subsea.
- 2 Describe and compare operational, maintenance, and safety systems for production facilities.
- 3 Use appropriate design methods for the selection and sizing of components for production facilities.
- 4 Critically appraise options for subsea field development.
- 5 Evaluate decommissioning options and techniques by applying relevant decommissioning legislation.

### Indicative Module Content

Fluid Processing; Hardware; Measurement and Control; Field Development; Integrity Management; Decommissioning.

### Module Delivery

The module will be delivered by means of face to face (full time) and online (online distance learning) lectures, tutorials, and self guided study.

Indicative Student Workload	Full Time	Part Time
Contact Hours	70	50
Non-Contact Hours	80	100
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:	40%	Outcomes Assessed:	1, 4, 5
Description:	Component 1 is coursework. The coursework will involve preparation of a short report presenting critical analysis and evaluation of facts.				

### Component 2

Type:	Examination	Weighting:	60%	Outcomes Assessed:	2, 3
Description:	Component 2 is a closed book examination.				

## MODULE PERFORMANCE DESCRIPTOR

### Explanatory Text

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.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	Greater than or equal to 70%
<b>B</b>	In the range 60% to 69%
<b>C</b>	In the range 55% to 59%
<b>D</b>	In the range 50% to 54%
<b>E</b>	In the range 40% to 49%
<b>F</b>	Less than 40%
<b>NS</b>	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	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.

**ADDITIONAL NOTES**

Part Time refers to Online Learning Part Time (OLPT).

**INDICATIVE BIBLIOGRAPHY**

- 1 Laik, Sukumar. (2018). Offshore Petroleum Drilling and Production. CRC Press. Chapters 3,6-8,10
- 2 Lyons, William C. Plisga, Gary J. Lorenz, Michael D.. (2016). Standard Handbook of Petroleum and Natural Gas Engineering (3rd Edition). Elsevier. Chapters 6-7
- 3 Arnold, Ken Stewart, Maurice. (2008). Surface Production Operations - Design of Oil Handling Systems and Facilities, Volume 1 (3rd Edition). Elsevier.
- 4 Coker, A. Kayode. (2021). Petroleum Refining Design and Applications Handbook, Volume 2 - Rules of Thumb, Process Planning, Scheduling and Flowsheet Design, Process Piping Design, Pumps, Compressors, and Process Safety Incidents. John Wiley & Sons. Chapter 16
- 5 Bai, Yong Bai, Qiang. (2019). Subsea Engineering Handbook (2nd Edition). Elsevier. Chapter 2
- 6 Journal articles, conference proceedings, and appropriate websites. Example OnePetro, Knovel, ASME