

# Marine Technology Management

# **Module Information**

2022.01, Approved

## **Summary Information**

| Module Code         | 7500MSIDL                    |
|---------------------|------------------------------|
| Formal Module Title | Marine Technology Management |
| Owning School       | Engineering                  |
| Career              | Postgraduate Taught          |
| Credits             | 20                           |
| Academic level      | FHEQ Level 7                 |
| Grading Schema      | 50                           |

#### Teaching Responsibility

| LJMU Schools involved in Delivery |  |
|-----------------------------------|--|
| Engineering                       |  |

## **Learning Methods**

| Learning Method Type | Hours |
|----------------------|-------|
| Lecture              | 24    |
| Online               | 2     |
| Tutorial             | 10    |

### Module Offering(s)

| Display Name | Location | Start Month | Duration Number Duration Unit |
|--------------|----------|-------------|-------------------------------|
| APR-CTY      | СТҮ      | April       | 12 Weeks                      |
| JAN-CTY      | СТҮ      | January     | 12 Weeks                      |
| SEP-CTY      | СТҮ      | September   | 12 Weeks                      |

### Aims and Outcomes

The aim of this module is to provide knowledge about the management of technical projects with emphasis on risk assessment, safety analysis, regulation and certification. It also considers the management of resources required for marine maintenance projects including dry-dock and retrofit.

#### After completing the module the student should be able to:

#### Learning Outcomes

| Code | Number | Description   |
|------|--------|---|
| MLO1 | 1      | Explain and justify the essential role and responsibilities of the marine technical superintendent as a manager in the safe and effective operation of a vessel or offshore facility.       |
| MLO2 | 2      | Show a critical awareness of the systems and equipment which must comply with international conventions, and the process of obtaining and maintaining certificates/certification.           |
| MLO3 | 3      | Critically evaluate the full range of specialist knowledge and skills which are required to support the technical operation and maintenance of a vessel or offshore facility.               |
| MLO4 | 4      | Consider the typical personnel needed and the qualifications and certification that they require in order to work in this field.  |
| MLO5 | 5      | Analyse and critically evaluate the core management and leadership skills, which are needed for managing self and others within the context of the marine technical management environment. |

### **Module Content**

| Outline Syllabus       | Financial viability of marine operation projects (supply and demand, time value of money, depreciation and tax, profit and loss, cost breakdown and voyage analysis and annual and discount cash flow analysis, etc.)Become aware of Marine risk and safety (accident analysis including human life loss, property loss, and environmental impact) and the notions of frequency, consequences, acceptability, ALARP, etc. Risk assessment including risk acceptance criteria, hazard identification, frequency estimation, consequences analysis, and risk reduction methodologies.Marine regulatory framework, comprising of rules and regulations covering design and operational issues of ships and offshore facilities.International sale of goods, formation of contract, performance and remedies. Marine insurance of hull, cargo and other risks, chartering, brokerage, claims.A knowledge of systems and technologies covering fundamentals of ship/offshore facility design, propulsion (ships), machinery, and operation & maintenance, including, but not limited to emission abatement equipment, ballast water treatment systems, and state-of-the-art energy efficient technologies. |
|------------------------|---|
| Module Overview        |   |
| Additional Information | This module contributes to the development of specialist management skills required to operate in a management role such as that of a Marine Technical Superintendent. The module is delivered via distance learning, described as follows:Lecture: Slides and slide notes for self-study.Tutorial: Online activities and exercises with teacher feedback. Virtual classrooms. Email support.Online: summative tests  |

### Assessments

| Assignment Category | Assessment Name | Weight | Exam/Test Length (hours) | Module Learning<br>Outcome Mapping |
|---------------------|-----------------|--------|--------------------------|------------------------------------|
| Essay               | Essay           | 95     | 0                        | MLO1, MLO2,<br>MLO3, MLO5,<br>MLO4 |
| Test                | Test            | 5      | 0                        | MLO1                               |

## **Module Contacts**

#### Module Leader

| Contact Name  | Applies to all offerings | Offerings |
|---------------|--------------------------|-----------|
| Sean Loughney | Yes                      | N/A       |

#### Partner Module Team