

Liverpool John Moores University

Title: Maritime and Offshore Safety Analysis
Status: Definitive
Code: **7009MSC** (121679)
Version Start Date: 01-08-2021

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

Team	Leader
Jin Wang	Y

Academic Level: FHEQ7 **Credit Value:** 20 **Total Delivered Hours:** 35
Total Learning Hours: 200 **Private Study:** 165

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	22
Tutorial	11

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination	70	2
Report	AS2	Safety Analysis Report	30	

Aims

To enable students to understand and implement the requirements of formal safety design, assessment and review in marine, offshore and port areas.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate the analyses required for safety evaluation from both design and operational aspects within the marine and offshore engineering environment.
- 2 Balance the requirements of design for safety and management of safety in the marine environment.
- 3 Specify how safety may be controlled within the marine and offshore engineering environment.
- 4 Develop a formal safety assessment on both a qualitative and quantitative basis that can be applied within the context of marine and offshore engineering.

Learning Outcomes of Assessments

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

Examination	1	2	3	4
Safety Analysis Report	1	2	3	4

Outline Syllabus

Introduction to safety and risk.

Risk and safety regulations in marine engineering.

Hazard identification techniques.

Consequence analysis.

Safety and risk evaluation.

Human factors and safety management.

Risk reduction and criteria.

Novel risk modelling and decision making techniques.

Marine and offshore case studies.

Learning Activities

By a combination of lectures and tutorials.

Notes

The module is designed to provide the underpinning knowledge and understanding to implement formal maritime safety assessment procedures.