

## Liverpool John Moores University

Title: CONSTRUCTION AND CARGO  
Status: Definitive  
Code: **4213NAU** (126761)  
Version Start Date: 01-08-2022

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

Team	Leader
Milad Armin	Y
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**Academic Level:** FHEQ4      **Credit Value:** 20      **Total Delivered Hours:** 82  
**Total Learning Hours:** 200      **Private Study:** 118

### Delivery Options

Course typically offered: S1 & S2 & Summer

Component	Contact Hours
Lecture	78
Practical	2

**Grading Basis:** 60 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Construction and Cargo	100	2

### Aims

*To develop student knowledge of the construction of vessels and the safe carriage of cargo.*

### Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an understanding of ship construction and inspection
- 2 Explain the processes required to ensure the safe handling, carriage and securing of cargoes

## Learning Outcomes of Assessments

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

Exam	1	2
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## Outline Syllabus

### *Ship construction*

*General knowledge of the principal structural members of a ship and the proper names for the various parts.*

*Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks*

*Knowledge and ability to explain where to look for damage and defects most commonly encountered due to:*

*loading and unloading operations, corrosion and severe weather conditions*

*Ability to state which parts of the ship shall be inspected each time in order to cover all parts within a given period of time*

*Identify those elements of the ship structure which are critical to the safety of the ship*

*State the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented*

*Knowledge of procedures on how the inspections shall be carried out*

*Ability to explain how to ensure reliable detection of defects and damages*

*Understanding of the purpose of the "enhanced survey programme".*

### *Cargo handling, stowage and securing*

*Knowledge of the effect of cargo, including heavy lifts, on the seaworthiness and stability of the ship*

*Knowledge of safe handling, stowage and securing of cargoes, including dangerous, hazardous and harmful cargoes, and their effect on the safety of life and of the ship*

*Ability to establish and maintain effective communications during loading and unloading*

## Learning Activities

Lectures and tutorials integrated with cargo loading simulator sessions.

## Notes

This module will contribute to the underpinning knowledge required for progression to an Officer of the Watch professional qualification.