

## Liverpool John Moores University

Title: NAVIGATION AND STABILITY 2  
Status: Definitive  
Code: **5212NAU** (126767)  
Version Start Date: 01-08-2021

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

Team	Leader
Barbara Kelly	Y
Abdul Khalique	
Jonathan Warren	
Ewan Kirkbride	
Mike Stringfellow	

**Academic Level:** FHEQ5      **Credit Value:** 20      **Total Delivered Hours:** 120.5  
**Total Learning Hours:** 200      **Private Study:** 79.5

### Delivery Options

Course typically offered: Semester 2 and Summer

Component	Contact Hours
Lecture	85
Tutorial	32

**Grading Basis:** Pass/Not Pass

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam 1	Navigation	60	2
Exam	Exam 2	Stability	40	1.5

### Aims

*This module should enable students to demonstrate theory and application of how to manage the navigation of the ship.*

*To assess the operational practices required for the safe planning of stability on*

ships

## Learning Outcomes

After completing the module the student should be able to:

- 1 Establish watchkeeping arrangements and safety procedures.
- 2 Demonstrate knowledge of the theories and factors affecting stability and trim, at moderate and large angles of heel, as applicable to merchant ship management.

## Learning Outcomes of Assessments

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

Exam 1	1
Exam 2	2

## Outline Syllabus

*Position fixing methods*

*The statutory and international requirements regarding navigation, navigational equipment and the qualifications and fitness of watchkeeping personnel*

*Bridge procedures for both routine and emergency situations*

*Bridge resource management*

*Preparation for the Navigational professional examination.*

*Understanding of fundamental principles of ship stability and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability*

*Knowledge of the effect on trim and stability of a ship in the event of damage to and consequent flooding of a compartment and countermeasures to be taken*

## Learning Activities

Lectures and tutorials integrated with simulator sessions if appropriate and available

## Notes

This module will contribute to the underpinning knowledge required for progression to professional qualification.

This is a pass/not pass module - students must obtain a mark of 65% or higher in navigation component (Exam 1) and 60% or higher in stability component (Exam 2).