Liverpool John Moores University

Title:	NAVIGATION AND STABILITY OPERATIONS 1
Status:	Definitive
Code:	**5201NAU** (121937)
Version Start Date:	01-08-2019
Owning School/Faculty:	Maritime and Mechanical Engineering
Teaching School/Faculty:	Maritime and Mechanical Engineering

Team	Leader
Ewan Kirkbride	Y
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Academic Level:	FHEQ5	**Credit Value:**	20	**Total Delivered Hours:**	88
Total Learning Hours:	200	**Private Study:**	112		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	77
Tutorial	8

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Essay - Coastal Passage Plan 1500 words	30	
Exam	AS2	Examination - Ocean & Tides	30	1.5
Exam	AS3	Examination - Stability	40	1.5

Aims

The module will enable the student to develop the techniques of passage planning and demonstrate competency in appraising and planning a passage, incorporating the influence of weather.
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	Appraise, plan and document a coastal passage including contingencies.
2	Demonstrate the ability to determine a recommended ocean route and to make sailing and tidal calculations relevant to both coastal and ocean passages.
3	Demonstrate knowledge of the theories and factors affecting stability 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:

Essay	1
Exam - Ocean & Tides	2
Exam - Stability	3

Outline Syllabus

Identify relevant factors, gather and analyse navigational, meteorological and operational data in order to prepare a safe and effective passage plan.
Document the planned passage.
Employ navigation aids and practices in a suitable manner in order to execute the passage safely and effectively.
Calculate distances by a variety of direct and indirect routes.
Calculates tidal heights/times and tidal flow.
Makes decisions as to contingencies that may arise during the execution of a passage.

Stability
Theories and factors affecting stability.
Factors affecting stability at moderate and large angles of heel.
Current national and IMO regulations concerning stability.

Learning Activities

Lectures, tutorials and practical demonstrations.

Notes

This module will provide the underpinning navigation and stability skills required to manage the passage and stability of a vessel during a voyage.

It is intended to be studied by students following an approved
STCW95 training programme who have spent some time on the bridge of a ship.