

Liverpool John Moores University

Title: MATHS AND COMMUNICATIONS
Status: Definitive
Code: **4217NAU** (126763)
Version Start Date: 01-08-2021

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

Team	Leader
Philip Davies	Y
Mike Stringfellow	

Academic Level: FHEQ4 **Credit Value:** 10 **Total Delivered Hours:** 51
Total Learning Hours: 100 **Private Study:** 49

Delivery Options

Course typically offered: S1 & S2 & Summer

Component	Contact Hours
Lecture	15
Tutorial	35

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	Portfolio	Maths tutorials and examinations	50	
Exam	Exam	Communications	50	1

Aims

To develop student knowledge of mathematical processes for shipboard operations and to develop communication techniques.

Learning Outcomes

After completing the module the student should be able to:

- 1 Manipulate algebraic expressions and solve equations
- 2 Apply the principles of basic trigonometry
- 3 Understand the use of traditional signalling methods used by ships
- 4 Construct and convey Distress, Urgency and Safety Communications with reference to applicable regulations

Learning Outcomes of Assessments

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

Portfolio	1	2
Exam	3	4

Outline Syllabus

Search and rescue

Knowledge of the contents of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual

English language

Adequate knowledge of the English language to enable the officer to use charts and other nautical publications, to understand meteorological information and messages concerning ship's safety and operation, to communicate with other ships, coast stations and VTS centres and to perform the officer's duties also with a multilingual crew, including the ability to use and understand the IMO Standard Marine Communication Phrases (IMO SMCP)

Visual signalling

Ability to use the International Code of Signals

Ability to transmit and receive, by Morse light, distress signal SOS as specified in Annex IV of the International Regulations for Preventing Collisions at Sea, 1972, as amended, and appendix 1 of the International Code of Signals, and visual signalling of single-letter signals as also specified in the International Code of Signals

Communication aspects of RoR

Basic Algebraic Functions and Trigonometry.

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 an Officer of the Watch professional qualification.