

Liverpool John Moores University

Title: Bridge Operations
Status: Definitive
Code: **4552BFC** (121550)
Version Start Date: 01-08-2020

Owning School/Faculty: Engineering
Teaching School/Faculty: Blackpool & Fylde College

Team	Leader
Barbara Kelly	Y

Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 84
Total Learning Hours: 200 **Private Study:** 116

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	74
Tutorial	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam 1	Buoyage and rules	50	2
Exam	Exam 2	Charts and Tides	50	2

Aims

To identify and practice the theories relating to chartwork and tides and to consider the use of standard signals in the role of lookout.

Learning Outcomes

After completing the module the student should be able to:

- 1 Apply IALA regulations in order to ensure safe coastal navigation.
- 2 Identify and interpret visual and sound signals used by ships
- 3 Interpret data included in navigational charts and publications.
- 4 Predict positions and courses using a range of chart based methods.
- 5 Calculate the height of tide in a variety of contexts.

Learning Outcomes of Assessments

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

Buoyage and rules	1	2	
Charts and Tides	3	4	5

Outline Syllabus

*Be able to plan a voyage through both IALA buoyage systems, be able to recognize IALA buoyage systems to be able to conduct a safe navigational watch.
Know and be able to identify the various sound and visual signals covered by parts A, C & D of the IRPCS*

Understand and be able to use the various chartwork techniques, to include: Dead Reckoning, Sea & Estimated Positions, Courses & Speeds Made Good; Transferred Position Lines & Circles; Horizontal Sextant Angles; Counteracting, Finding actual Set Rate & Drift.

Be able to read and interpret the information of a chart with a view to the effect on a vessel's voyage, together with an Introduction to the need and formation of a passage plan.

Understand tide theory & definitions, including H&LATs, Be able to predict heights and times of tides at secondary ports worldwide.

Learning Activities

Learners to be introduced to the buoyage systems, to be made aware of the different shapes, lights and colours that identify the characteristics of each buoy. Assessment to be carried out formatively during the lectures with Question and Answer sessions; summative assessment to include a written examination, identifying buoys and their lights.

Learners will be introduced to the various day-signals and lights that are shown by vessels indicating their current mode, learners to be made aware of these different signals. Similar assessment strategy to the buoyage system, i.e., Assessment to be carried out formatively during the lectures with Question and Answer sessions; summative assessment to include a written examination, identifying different types of vessels by the shapes and lights they show whilst working.

Chartwork techniques to be taught in a practical situation with learners practicing the techniques under supervision, formative assessment to be made at this time, with

summative assessment as a final written examination.

Worldwide tide theory and definitions to be explained with practical examples, learners to practice calculations with problems using the various definitions and terms, formative assessment to be made during their attempts to answer these problems, summative assessment by final written examination.

Notes

This module will contribute to the underpinning knowledge required for progression to an Officer of the Watch professional qualification. Further information can be found within the STCW syllabus.