

Liverpool John Moores University

Title: METEOROLOGY
Status: Definitive
Code: **5203NAU** (121939)
Version Start Date: 01-08-2019

Owning School/Faculty: Maritime and Mechanical Engineering
Teaching School/Faculty: Maritime and Mechanical Engineering

Team	Leader
Jonathan Warren	Y

Academic Level: FHEQ5 **Credit Value:** 10 **Total Delivered Hours:** 42
Total Learning Hours: 100 **Private Study:** 58

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	36
Tutorial	4

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination	100	2

Aims

The module will enable the student to analyse and interpret meteorological and climatological information and its effect on a vessels safe passage.

Learning Outcomes

After completing the module the student should be able to:

- 1 Obtain and evaluate meteorological and climatological data. Interpretation and application of meteorological and climatological information for the purpose of weather routing of vessels.
- 2 Understand weather associated with pressure systems. Understand ocean current circulation and formation of ice.

Learning Outcomes of Assessments

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

Exam	1	2
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Outline Syllabus

Obtain and analyse surface and upper air charts. Identify regions of TRS activity, ITCZ, frontal and non-frontal depressions, and all main synoptic features.
Thermal winds, Rossby waves and the influence on the development of mid latitude depressions of convergence and divergence in the upper air.
Principles of weather forecasting and how the forecast charts are prepared.
The growth and movement of sea waves and swell. Use of wave height charts.
The formation of Ocean currents.
Use of routing charts to obtain climate data including regions of ice, TRS activity, poor visibility, currents.
Understand the principles of ship/shore based weather.
Ice and ice accumulation.

Learning Activities

Lectures, tutorials and practical demonstrations.

Notes

This module will provide the underpinning skills required to interpret meteorological data. 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.