

Liverpool John Moores University

Title: METEOROLOGY
Status: Definitive
Code: **5020MAR** (105592)
Version Start Date: 01-08-2016

Owning School/Faculty: Astrophysics Research Institute
Teaching School/Faculty: Astrophysics Research Institute

Team	Leader
Hamid Sarwar	Y

Academic Level: FHEQ5
Credit Value: 12
Total Delivered Hours: 38
Total Learning Hours: 120
Private Study: 82

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	30
Practical	2
Tutorial	4

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	coursework	25	
Exam	AS2	examination	75	2

Aims

On completion the student should be able to understand the influence of weather, ice currents and waves on the safe navigation of a vessel.

Learning Outcomes

After completing the module the student should be able to:

- 1 Interpret surface isobaric, upper air , wave, ice, analysis charts.
- 2 Understand the derivation and interpret synoptic forecast charts.
- 3 Obtain and evaluate climate data.

Learning Outcomes of Assessments

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

CW	1	2	
EXAM	1	2	3

Outline Syllabus

Obtain and analyse surface and upper air charts. Identify regions of TRS activity, ITZ, fronts and frontal depressions, and all main synoptic features.

Thermal winds and Rossby waves and the influence on the development of mid latitude depressions of convergence and divergence in the upper air.

Understand the principals of numerical weather forecasting and how the forecast charts are prepared.

The growth and movement of sea waves and swell. Use of wave height charts.

The development of Ocean currents

Use of routeing charts to obtain climate data including regions of ice, TRS activity, poor visibility, currents.

Understand the principals of weather routeing using a computer package on board or ashore.

Areas and problems associated with ice accumulation.

Learning Activities

Lectures, tutorials and practicals

Notes

This module provides the underpinning knowledge as described in MN7 of the library of underpinning knowledge for Merchant Navy Deck Personnel. The library document includes the content of STCW 95.

This module will enable a student to develop skills in obtaining and interpreting meteorological data. It is intended for students who are following an approved STCW95 Deck Officer training programme and who have already had some experience at sea. Students who are not going to sea may find it useful to understand the factors which control the environment however they will be expected to demonstrate that they have some prior knowledge of the subject

