

Summary Information

Module Code	6103NAU
Formal Module Title	Professional Competence 1
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Abdul Khaliq	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------

Partner Module Team

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------

Teaching Responsibility

LJMU Schools involved in Delivery
Engineering

Learning Methods

Learning Method Type	Hours
----------------------	-------

Lecture	100
Tutorial	20

Module Offering(s)

Offering Code	Location	Start Month	Duration
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	To evaluate current academic programmes supporting seafarer training and to prepare students for higher professional Stability qualification.
-------------	---

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Evaluate academic structures associated with maritime training
MLO2	Discuss the national and international standards for seafarer training
MLO3	Assess the transverse stability of a vessel
MLO4	Assess the longitudinal stability of a vessel

Module Content

Outline Syllabus

The students will be able to demonstrate a knowledge of the theories and factors affecting stability at moderate and large angles of heel, as applicable to merchant ship management. • Stability information carried on board ship. The inclining experiment. • Application of 'Free Surface Effect' • The effect on vessel's centre of gravity of loading, discharging, weights. Final list. Requirements to bring vessel upright • Curves of righting levers (GZ), using real ship stability information. Determine compliance with 'Intact Stability' requirements of the current loadline regulations • Simplified Stability. Using real ship stability information • Angle of loll and effective GM at angle of loll • Factors affecting a curve of righting levers (GZ) • The effect on the curve of righting levers (GZ) of shift of cargo and wind heeling moments • Use of the current IMO Grain Rules to determine if the vessel complies with the specified stability criteria. Real ship stability information to be used • Stability during drydocking. Using real ship stability information. • • Increase in draught due to list / heel. Angle of heel when turning. • The effect of loading, discharging, shifting weights on trim, draught and stability. Using real ship stability information. • Draught survey • Rolling, pitching, parametric and synchronous rolling • The effect of damage and flooding on stability • Damage stability requirements for passenger vessels and Type A and B vessels • Loadline terminology and definitions for new builds • Conditions of assignment of load lines • Assignment of special load lines e.g. 'timber load lines' • Requirements and Codes relating to the stability of specialised vessels • The preparations required for surveys • Legislative Requirements understanding of load line marks, entries and reports in respect of freeboard, draft and allowances; Loading and Unloading of Cargoes knowledge of the effect on trim and stability, of cargoes and cargo operations on board the vessel concerned use of stability and trim information, use of stress-calculating equipment, knowledge of loading cargoes and ballasting with respect to stability and hull stress Seaworthiness of the Ship preparations for sea prior to sailing with respect to watertight integrity and additional precautions to be taken before the onset of heavy weather practical knowledge of the particular loadline items affecting seaworthiness action in event of cargo shift, damage to hull or hatches, loss of cargo overboard or ingress of water into hull Legislative Requirements understanding of load line marks, entries and reports in respect of freeboard, draft and allowances Training programmes for seagoing personnel and their compliance with national and international requirements. STCW requirements and potential for change. MCA and MNTB role in the development of programmes. Research projects developing future skills requirements and meeting of UK 2050 needs. Levels of recruitment and correct academic levels for seafarer training.

Module Overview

The aim of this module is to evaluate current academic programmes supporting seafarer training and to prepare you for higher professional Stability qualifications.

Additional Information

The module has been designed to aid students in evaluating current academic programmes supporting seafarer training and to prepare students for higher professional Stability qualifications.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Report	40	0	MLO2, MLO1
Centralised Exam	Exam	60	2	MLO4, MLO3