

Part A

Course Framework

■ Scope

This **Management Level Course for Marine Deck Officers (Function 2)** covers the mandatory minimum requirement for approved education and training as provided for under Regulation II/2 of the STCW Convention, 1978, as amended for masters and chief mates on ships of 500 gross tonnage or more; and to meet the minimum standard of competence specified in Section A-II/2 of the STCW Code under Function: Cargo Handling and Stowage at the Management Level.

This course requires a total of **thirty (30)** instructional hours to cover the topics enumerated in Part B – Course Outline.

■ Training Outcomes

To meet the minimum standard of competence to undertake the tasks, duties, and responsibilities at the management level specified under Table A-II/2 (Function 2) in Section A-II/2 of the STCW Code.

Specifically, at the end of the course, the trainee must be able to:

- plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes;
- assess reported defects and damage to cargo spaces, hatch covers and ballast tanks and take appropriate action; and
- carriage of dangerous goods.

■ Entry Standards

Entry to the course is open to Marine Deck Officers who are holders of a Certificate of Competency (COC) under Regulation II/1 of the STCW Convention, 1978, as amended, and have an approved seagoing service as an Officer in Charge of a Navigation Watch on ships of 500 gross tonnage or more for not less than 12 months.

■ Course Certificate

Upon successful completion of the course, a Certificate of Completion shall be issued certifying a holder's compliance of the mandatory minimum requirements as specified in Regulation II/2 of the STCW Convention, 1978, as amended, and met the minimum standard of competence under Table A-II/2 Function 2 in Section A-II/2 of the STCW Code.

■ Course Intake Limitation

The number of trainees shall not exceed twenty-four (24) per class.

■ Staff Requirements

The course must have an Instructor and Assessor with a valid Certificate of Accreditation as Instructor and Assessor respectively for Function 2 of Management Level Course for Marine Deck Officers issued by the Administration.

Additionally, the Supervisor of training and assessment may be assumed by the training manager, training director or any person designated by the MTI. It shall be required that he/she has full understanding of the training program and the specific objectives for this training course, and has undergone IMO Model Course 6.09 and IMO Model Course 6.10. On the supervision in the conduct of assessment, he/she shall have full understanding of the assessment system, assessment methods and practice, and has undergone IMO Model Course 3.12.

■ Assessment

In determining the achievement of the required competence in Column 1 of Table A-II/2 under the Function: “Cargo Handling and Stowage at the Management Level”, the assigned assessor shall be guided by the Intended Learning Outcomes stipulated in the Course Syllabus and the assessment tasks enumerated in the Assessment Plan.

■ Teaching Facilities and Equipment

For the theoretical aspect of the course, lectures and demonstrations shall be held in a classroom with set of functional audio-visual equipment. The classroom must have an area of at least 42 square meters (sqm) with no side less than 5 meters and no structural obstruction. If the classroom is less than 42 sqm, the number of trainees that can be accommodated will be computed based on the 1.75 sqm area per trainee requirement, provided that no side shall be less than 5 meters.

For the conduct of practical exercises and assessment, the following training facilities and equipment shall be available:

Items	Quantity
Facilities and Equipment	
Computer sets with software capable of simulating cargo and stress calculations, and provide stability and trim diagrams of the following types of vessel, but not limited to: <ul style="list-style-type: none"> • bulk carrier; • tanker vessel; and • container vessel. (1 computer set : 1 trainee)	<i>25 units of computer sets (which includes 1 computer set for instructor)</i>

Notes:

1. *Computer software duly certified by International Association of Classification Societies (IACS), capable of simulating the required knowledge, understanding and proficiencies (KUPs) for cargo handling at the management level as per Table A-II/2 of STCW Code.*
2. *Required equipment to be used by the instructor during the demonstration is already included in the specified quantity.*
3. *All equipment must be labeled with MTI's name.*
4. *In addition to the required training equipment, the following must be available and permanently marked **"FOR EMERGENCY PURPOSES ONLY"** and must be placed in an accessible area:*
 - *First aid kit;*
 - *Stretcher;*
 - *Resuscitation kit with oxygen; and*
 - *Suction unit.*

■ **Teaching Aids (A)**

A1 Visual Presentations

A2 Training videos related to the topics

Note: When using videos and images from external sources, the MTI shall ensure that these are obtained from reliable sources, deliver accurate information, are of high-resolution quality, adhere to educational or industry standards, and in accordance with the approved criteria established by the Accreditation Division. Appropriate references/acknowledgements shall be indicated in the presentation slides.

A3 Sample Manuals

- Code of Safe Practice for Cargo Stowage and Securing (CSS Code)
- International Maritime Solid Bulk Cargoes (IMSBC) Code
- SOLAS
- International Maritime Dangerous Goods (IMDG) Code
- MARPOL 73/78
- Cargo Simulator Manufacturer's Manual
- Safety Management System (SMS) Manual

A4 Exercise Sheets

- A4.1 Create plans for safe loading/unloading and ballasting/de-ballasting operations of the following types of vessel, but not limited to:
- A4.1.1. Bulk Carrier;
 - A4.1.2. Tanker Vessel; and
 - A4.1.3. Container Vessel

A4.2 Develop strategies, to include risk assessment, to avoid the detrimental effects of corrosion, fatigue, and inadequate cargo handling on bulk carriers

■ IMO References (R)

- R1 *International Convention on Standards of Training, Certification and Watch keeping (STCW) for Seafarers 1978, as amended* (latest edition). International Maritime Organization.
- R2 *Code of Safe Practice for Cargo Stowage and Securing (CSS Code)* (latest edition). International Maritime Organization.
- R3 *International Code on Intact Stability* (latest edition). International Maritime Organization.
- R4 *International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)* (latest edition). International Maritime Organization.
- R5 *International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended* (latest edition). International Maritime Organization.
- R6 *International Convention on Load Lines* (latest edition). International Maritime Organization.
- R7 *International Convention on Tonnage Measurement of Ships* (latest edition). International Maritime Organization.
- R8 *International Maritime Solid Bulk Cargoes (IMSBC) Code* (latest edition). International Maritime Organization.
- R9 *The International Maritime Dangerous Goods (IMDG) Code* (latest edition). International Maritime Organization.
- R10 *International Convention for Safe Containers* (latest edition). International Maritime Organization.

Note: MTIs may use additional references as deemed necessary to meet the intended learning outcomes.

■ Bibliography (B)

- B1 Forum, O. C. I. M. (latest edition). ISGOTT, *International Safety Guide for Oil Tankers and Terminals*
- B2 DERRETT, D.R. (latest edition). *Ship Stability for Masters and Mates*, Revised Butterworth-Heinemann, LTD.
- B3 La Dage and L. Van Gemert. (latest edition). *Stability and Trim for Ship Officers*, Cornell Maritime Press, Maryland.

- B4 TAYLOR, L.G. (latest edition). *The Principles of Ship Stability*. Brown, Son & Ferguson, Ltd., Glasgow.

Note: The MTI may choose books from the above bibliography, or they may use the latest edition of other references provided that their contents will address the required learning outcomes. Electronic publications may be accepted as alternatives to printed copies of the latest editions and must be sourced from authorized publishers.