

Course guide

280709 - 280709 - Imdg and Stowage

Last modified: 27/05/2024

Unit in charge:	Barcelona School of Nautical Studies	
Teaching unit:	742 - CEN - Department of Nautical Sciences and Engineering.	
Degree:	MASTER'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT MANAGEMENT (Syllabus 2016). (Compulsory subject).	
Academic year: 2024	ECTS Credits: 5.0	Languages: Catalan, Spanish, English

LECTURER

Coordinating lecturer:	RAÚL BADILLO CORRAL
Others:	Segon quadrimestre: RAÚL BADILLO CORRAL - ERAS, MNGTM ANDREU MARTÍNEZ PARERA - ERAS, MNGTM

PRIOR SKILLS

- Intermediate level of English
- Fluently use of Office Programs

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

CE13-MNGTM. Conocimiento sobre la gestión y el comportamiento en la mar de los transportes marítimos especiales.

Generical:

CG1-MNGTM. Capacitat per a gestionar, dirigir i coordinar l'anàlisi de les situacions, càlcul de variables i paràmetres específics de la navegació, la maniobra i del transport marítim.

CG2-MNGTM. Capacitat per a gestionar, dirigir i coordinar les tasques de la conservació i manteniment dels elements de coberta i espais de càrrega i estructura del vaixell.

CG5-MNGTM. Capacitat per gestionar, dirigir, coordinar i planificar la manipulació estiba i desestiba de la càrrega

CG6-MNGTM. Capacitat per planificar i realitzar els càlculs necessaris per a la distribució de la càrrega del vaixell, i la prevenció de sobreesforços estructurals

CG13-MNGTM. (ENG) Capacidad para dirigir, gestionar y explotar buques y artefactos flotantes, navieras y otras empresas marinas

CG15-MNGTM. (ENG) Capacidad para resolver problemas complejos y tomar decisiones con responsabilidad sobre bases científicas y tecnológicas en el ámbito de su especialidad

CG20-MNGTM. Capacitat per a la gestió i direcció d'empreses marines

CG18-MNGTM. (ENG) Capacidad para dirigir y gestionar puertos deportivos

CG19-MNGTM. Capacitat per desenvolupar els coneixements per a l'anàlisi i interpretació de mesuraments, càlculs, valoracions, taxacions, peritatges, estudis, informes i documents tècnics en l'àmbit de la seva especialitat

Transversal:

CT1. ENTREPRENEURSHIP AND INNOVATION: Knowing and understanding the organization of a company and the sciences that govern the activity; be able to understand the business rules and relationships between planning, industrial and commercial strategies, quality and profit.

Basic:

CB6. Possess knowledge and understanding that provide a basis or opportunity be original in the development and / or application of ideas, often in a research context.

CB7. That the students can apply their knowledge and ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their study area.

CB8. Students should be able to integrate knowledge and handle the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the responsibilities social and ethical linked to the application of their knowledge and judgments.

CB9. That students can communicate their conclusions and the knowledge and Latest rationale underpinning to specialists and non Specialty clearly and unambiguously.

CB10. Students must possess the learning skills that enable them continue studying in a way that will be largely self-directed or autonomous.

TEACHING METHODOLOGY

- Receive, understand, and synthesize knowledge.
- Solve problems.
- Develop the reasoning and critical thinking.

LEARNING OBJECTIVES OF THE SUBJECT

One of the objectives of this subject is provide the knowledge, understanding and proficiency of the next competences defined in the in Section A-II/2 (Mandatory minimum requirements for certification of masters and chief mates on ships of 500 gross tonnage or more) of the Seafarers' Training, Certification and Watchkeeping (STCW) International Code:

- "Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes" with special attention to the "Ability to establish procedures for safe cargo handling in accordance with the provisions of the relevant instruments such as IMDG Code, IMSBC Code, MARPOL 73/78 Annexes III and V and other relevant information

- "Carriage of dangerous goods"

These competences could be also evaluated though simulator in accordance of the STCW Code.

The topics that will be discussed in this subject are the next ones:

- General knowledge of the IMDG Code with special attention to the parts 2, 3, 5 and 7
- Knowledge of the IMDG Code Supplement
- Segregation and stowage of dangerous goods on board container ships, ro-ro ships and general cargo ships
- Knowledge of different international rules for dangerous goods transport: ADR/RID, IATA, IMDG.
- National regulations regarding dangerous goods
- Harbour management procedures for dangerous goods

STUDY LOAD

Type	Hours	Percentage
Hours large group	45,0	36.00
Self study	80,0	64.00

Total learning time: 125 h



CONTENTS

Chapter 1. IMDG Code

Description:

Deep Knowledge of the IMDG code and its supplement. Knowledge of the procedures previous to the embarkation of the dangerous goods, documents needed, segregations, stowage, exemptions, etc

Full-or-part-time: 89h 20m

Theory classes: 6h

Guided activities: 16h 40m

Self study : 66h 40m

Chapter 2. Relation among the international regulations for the transport of dangerous goods

Description:

General knowledge of the regulations IMDG, ADR, RID and IATA and the relation among them

Full-or-part-time: 15h

Theory classes: 12h 30m

Guided activities: 2h 30m

Chapter 3. National regulations for the carriage of dangerous goods at sea

Description:

Knowledge of the spanish regulation that regulates the carriage of dangerous goods at sea. Functions of the maritime administration and harbour authorities. Responsibilities of the captain.

Full-or-part-time: 12h

Guided activities: 2h

Self study : 10h

Chapter 4. Harbour management procedure for the dangerous goods

Description:

Knowledge of the harbour procedures for the entrance, exit and transit of the dangerous goods.

Full-or-part-time: 8h 40m

Guided activities: 2h

Self study : 6h 40m

GRADING SYSTEM

Final mark=60% WORKS + 40% FINAL EXAM

EXAMINATION RULES.

- If the student doesn't carry out all the compulsory exercises, he or she will be considered as "No presented"
- If the student doesn't carry out the final exam, he or she will be considered as a "Not presented".
- In case that the final mark is less than 5 but the student has passed the final exam, he or she will get the final mark of 5 (approved).

BIBLIOGRAPHY

Basic:

- Organització Internacional Marítima. Código IMDG : código marítimo internacional de mercancías peligrosas. Londres: IMO, 2021. ISBN 9789280131734.
- International Maritime Organization. MARPOL : consolidated edition [A: IMO vega on the web] [on line]. London: International Maritime Organization, 2017 [Consultation: 02/09/2022]. Available on: <https://vp.imo.org/index.html>.
- Organització Internacional Marítima. Provisions concerning the reporting of incidents involving harmful substances : under Marpol 73/78. Londres: International Maritime Organization, 1999. ISBN 9789280160987.
- Recommendations on the transport of dangerous goods : model regulations [on line]. 21st rev. ed. New York: United Nations, 2019 [Consultation: 13/07/2021]. Available on: https://www.unece.org/trans/danger/publi/unrec/rev21/21files_e.html. ISBN 9789210041126.
- Organització Internacional Marítima. SOLAS : edición refundida de 2020 : texto refundido del Convenio internacional para la seguridad de la vida humana en el mar, 1974, y su protocolo de 1988 : artículos, anexos y certificados. Londres: IMO, 2020. ISBN 9789280131253.

Complementary:

- Reglamentación sobre mercancías peligrosas. [s.l.]: IATA, 2020. ISBN 9789292298975.
- Organización de Aviación Civil Internacional. The Safe transport of dangerous goods by air : anexo 18 al convenio sobre aviación civil internacional. 4th ed. Montréal: ICAO, 2011.
- Louzán Lago, Felipe. Estiba de cargas solidas. La Coruña: Cartamar, 2016. ISBN 9788494174667.
- Castle, Martin. Transporte de mercancías peligrosas : comentario a los reglamentos internacionales. Madrid: AENOR, 2003. ISBN 8481433683 .
- Martinez Marin, Jesús Ezequiel; Montori Díez, Agustín; Badell Serra, Mariano. Transporte marítimo de mercancías peligrosas. Independently published, 2021. ISBN 9798749391299.