



## Course guides

# 280707 - 280707 - Leadership and Management of Maritime Industries

Last modified: 02/07/2020

**Unit in charge:** Barcelona School of Nautical Studies

**Teaching unit:** 742 - CEN - Department of Nautical Sciences and Engineering.

**Degree:** MASTER'S DEGREE IN THE MANAGEMENT AND OPERATION OF MARINE ENERGY FACILITIES (Syllabus 2016). (Compulsory subject).  
MASTER'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT MANAGEMENT (Syllabus 2016). (Compulsory subject).

**Academic year:** 2020

**ECTS Credits:** 5.0

**Languages:** English

### LECTURER

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**Coordinating lecturer:** ALEJANDRO LEON ARIAS

**Others:**

### PRIOR SKILLS

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None

### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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**Specific:**

CE22-MNGTM. Coneixements i capacitat per aplicar les tècniques d'adopció de decisions.

CE23-MNGTM. Conocimientos y capacidad para aplicar una gestión eficaz de los recursos.

**Generical:**

CG9-MNGTM. Capacitat per organitzar i dirigir grups de treball multidisciplinaris en un entorn multilingüe, i de generar informes per a la transmissió de coneixements i resultats

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

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

CG14-MNGTM. Capacitat per al projecte i instal·lació d'equips nàutics i de seguretat del vaixell i instal·lacions marines, dins l'àmbit de la seva especialitat, és a dir, operació i explotació

**Transversal:**

CT2. SUSTAINABILITY AND SOCIAL COMMITMENT: Being aware of and understanding the complexity of the economic and social phenomena typical of a welfare society, and being able to relate social welfare to globalisation and sustainability and to use technique, technology, economics and sustainability in a balanced and compatible manner.

CT3. TEAMWORK: Being able to work in an interdisciplinary team, whether as a member or as a leader, with the aim of contributing to projects pragmatically and responsibly and making commitments in view of the resources that are available.

CT4. EFFECTIVE USE OF INFORMATION RESOURCES: Managing the acquisition, structuring, analysis and display of data and information in the chosen area of specialisation and critically assessing the results obtained.

CT5. FOREIGN LANGUAGE: Achieving a level of spoken and written proficiency in a foreign language, preferably English, that meets the needs of the profession and the labour market.

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.

Know and understand the mechanisms that scientific research is based, as well as the mechanisms and instruments of transfer of results between different socio-economic actors involved in the processes of R + D + i.



**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.

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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

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- MD1. Lectures
- MD2. Participative lessons
- MD3. Cooperative learning
- MD4. Autonomous learning by solving exercises
- MD5. Project-based learning

## LEARNING OBJECTIVES OF THE SUBJECT

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- The student knows and understands advanced tools to develop leadership, teamworking and communication skills.
- Has advanced working knowledge of shipboard personnel management and training.
- Has knowledge of related international maritime conventions and recommendations, and national legislation.
- Knows and understands advanced tools to apply task and workload management.
- Knows and understands advanced tools to apply effective resource management.
- Knows and understands advanced tools to apply decision-making techniques.
- Knows and understands how motivation may affect subordinate and peer commitment and performance

On the other hand, one of the objectives of this subject is provide the knowledge, understanding and proficiency of the competency "Use of leadership and managerial skill" (19), competency required and defined in Section A-III/2 (Mandatory minimum requirements for certification of chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3.000 kW propulsion power or more) and A-II/2 (Mandatory minimum requirements for certification of masters and chief mates on ships of 500 gross tonnage or more) of The 2010 Manila Amendments to the Seafarers' Training, Certification and Watchkeeping (STCW) International Code.

The assessment of evidence will obtained from one or more of the following methods:

- 1) approved training
- 2) approved in-service experience
- 3) approved simulator training

## STUDY LOAD

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Type	Hours	Percentage
Hours large group	45,0	100.00

**Total learning time:** 45 h

## CONTENTS

### Introduction

**Description:**

- A knowledge of related international maritime conventions and recommendations, and national legislation (Knowledge, understanding and proficiency, A-II/2-19.2)
- Development, implementation, and oversight of standard operating procedures (Knowledge, understanding and proficiency, A-II/2-19.6)

(This knowledge is necessary in accordance with the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code)

(See IMO model course 7.01 Master and Chief Mate and STCW Code Section A- V1/2-1)

**Specific objectives:**

Following the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code, Column 4 "Criteria for Evaluating Competences":

Operations are demonstrated to be effective and in accordance with applicable rules.

**Full-or-part-time:** 17h 50m

Theory classes: 2h 10m

Self study : 15h 40m

### Communication

**Description:**

- Knowledge of shipboard personnel management and training (Knowledge, understanding and proficiency, A-II-III/2-19.4.1)
- Effective communication on board and ashore
  - o decisions reflect consideration of team experiences
  - o assertiveness and leadership, including motivation
  - o obtaining and maintaining situation awareness

(This knowledge is necessary in accordance with the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code)

(See IMO model course 7.01 Master and Chief Mate and STCW Code Section A- V1/2-1)

- Communication barriers
- Emotional Intelligence (truth and myths)
- Feedback
- Non-verbal communication
- Risks of first impressions (halo/horns effect)
- Paradigms and interpretations
- NLP principles
- Authority and communication gradient
- Understanding (5 Whys technique)

**Specific objectives:**

Following the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code, Column 4 "Criteria for Evaluating Competences":

The crew are allocated duties and informed of expected standards of work and behaviour in a manner appropriate to the individuals concerned.

**Full-or-part-time:** 17h 50m

Theory classes: 2h 10m

Self study : 15h 40m



## Motivation

### Description:

- Concept
- Intrinsic and extrinsic motivation
- Primary and Secondary Motives
- Locus of Control
- Main theories of motivation
- Organizational Culture

**Full-or-part-time:** 17h 50m

Theory classes: 2h 10m

Self study : 15h 40m

## Effective management

### Description:

- Knowledge of shipboard personnel management and training (Knowledge, understanding and proficiency, A-II-III/2-19.1)
- Ability to apply task and workload management, including (Knowledge, understanding and proficiency, , A-II-III/2-19.3):
  - o planning and co-ordination
  - o personnel assignment
  - o time and resource constraints
  - o prioritization
- Knowledge and ability to apply effective resource management (Knowledge, understanding and proficiency, A-II-III/2-19.4):
  - o allocation, assignment, and prioritization of resources
  - o effective communication on board and ashore
  - o decisions reflect consideration of team experiences
  - o assertiveness and leadership, including motivation
  - o obtaining and maintaining situation awareness

(This knowledge is necessary in accordance with the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code)

(See IMO model course 7.01 Master and Chief Mate and STCW Code Section A- V1/2-1)

### Specific objectives:

Following the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code, Column 4 "Criteria for Evaluating Competences":

Training objectives and activities are based on assessment of current competence and capabilities and operational requirements.

Operations are demonstrated to be in accordance with applicable rules.

Operations are planned and resources are allocated as needed in correct priority to perform necessary tasks.

**Full-or-part-time:** 18h

Theory classes: 2h 10m

Self study : 15h 50m



### Sense-making and decision making

**Description:**

- Knowledge and ability to apply decision-making techniques (Knowledge, understanding and proficiency, A-II-III/2-19.5)
  - o situation and risk assessment
  - o identify and generate options
  - o selecting course of action
  - o evaluation of outcome effectiveness

(This knowledge is necessary in accordance with the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code)

(See IMO model course 7.01 Master and Chief Mate and STCW Code Section A- V1/2-1)

**Specific objectives:**

Following the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code, Column 4 "Criteria for Evaluating Competences":

Communication is clearly and unambiguously given and received.

Effective leadership behaviours are demonstrated.

Necessary team member(s) share accurate understanding of current and predicted vessel state and operational status and external environment.

Decisions are most effective for the situation.

**Full-or-part-time:** 17h 55m

Theory classes: 2h 10m

Self study : 15h 45m

### Transformational leadership and leadership development

**Description:**

- knowledge and ability to develop transformational leadership

**Full-or-part-time:** 17h 55m

Theory classes: 2h 10m

Self study : 15h 45m

### Innovation

**Description:**

- Innovation Management
- Intellectual stimulation
- Culture of innovation
- Adapting to Change
- Adoption of new procedures and technology

**Full-or-part-time:** 17h 40m

Theory classes: 2h 10m

Self study : 15h 30m

## GRADING SYSTEM

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Option A: Final Exam (100%)

Option B: Continuous Evaluation

B1: Class activities (B1a individual; B1b group) (25% & 30%)

B2: Homework activities (15%)

B3: Mid-term prove (15%)

B4: Final prove (15%)

Following the Table A-II/2 and Table A-III/2 of The 2010 Manila Amendments to the STCW Code, the assessment of evidence will be obtained from one of more of the following methodologies:

- 1) Approved Training
- 2) Approved in-service experience
- 3) Approved simulator Training

## BIBLIOGRAPHY

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### Basic:

- Leadership and teamwork : IMO model course 1.39. Londres: IMO, 2014. ISBN 9789280115796.
- Gardner, William L.; Avolio, Bruce J.; Walumbwa, Fred O. Authentic leadership theory and practice : origins, effects and development. Bingley: Emerald Group Publishing Limited, 2005. ISBN 9780762312375.

### Complementary:

- Tidd, J.; Bessant, J. Managing innovation : integrating technological, market and organizational change. 4th ed. Chichester: John Wiley, 2009. ISBN 9780470998106.
- Storey, John. Leadership in organizations : current issues and key trends [on line]. London: Taylor & Francis, 2005 [Consultation: 06/07/2018]. Available on: <http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=106644>. ISBN 0203340736.