280707 - Leadership and Management of Maritime Industries

Coordinating unit: 280 - FNB - Barcelona School of Nautical Studies
Teaching unit: 742 - CEN - Department of Nautical Sciences and Engineering
Academic year: 2019
Degree: MASTER'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT MANAGEMENT (Syllabus 2016). (Teaching unit Compulsory)
MASTER'S DEGREE IN THE MANAGEMENT AND OPERATION OF MARINE ENERGY FACILITIES (Syllabus 2016). (Teaching unit Compulsory)
ECTS credits: 5
Teaching languages: English

Coordinator: ALEJANDRO LEON ARIAS

Opening hours
Timetable: Thursday 16:00 a 18:00

Prior skills
None

Degree competences to which the subject contributes

Specific:
CE15MENTM. Lead and manage a team in the maritime field and mainly to the crew of a ship.

General:
CG3MENTM. Manage and exercise control the direction of the ship.
CG8MENTM. Direct, plan and supervise multidisciplinary teams.

Transversal:
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.

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

Learning objectives of the subject
- 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.
280707 - Leadership and Management of Maritime Industries

- 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 to 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 be obtained from one or more of the following methods:
1) approved training
2) approved in-service experience
3) approved simulator training

<table>
<thead>
<tr>
<th>Study load</th>
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<tbody>
<tr>
<td><strong>Total learning time:</strong> 45h</td>
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<td>Hours large group:</td>
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<td><strong>45h</strong></td>
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Introduction

**Learning time:** 12h
- Theory classes: 2h
- Practical classes: 4h
- Self study: 6h

**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.
### Communication

<table>
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<tr>
<th>Learning time: 16h</th>
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<tbody>
<tr>
<td>Theory classes: 2h</td>
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<tr>
<td>Practical classes: 4h</td>
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<td>Self study: 10h</td>
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**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
  - Decisions reflect consideration of team experiences
  - Assertiveness and leadership, including motivation
  - 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.

### Motivation

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<tbody>
<tr>
<td>Theory classes: 2h</td>
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<tr>
<td>Practical classes: 4h</td>
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<tr>
<td>Self study: 10h</td>
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**Description:**
- Concept
- Intrinsic and extrinsic motivation
- Primary and Secondary Motives
- Locus of Control
- Main theories of motivation
- Organizational Culture
### Effective management

**Learning time:** 18h  
Theory classes: 2h  
Practical classes: 6h  
Self study: 10h

### 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):
  - planning and co-ordination
  - personnel assignment
  - time and resource constraints
  - prioritization
- Knowledge and ability to apply effective resource management (Knowledge, understanding and proficiency, A-II-III/2-19.4):
  - allocation, assignment, and prioritization of resources
  - effective communication on board and ashore
  - decisions reflect consideration of team experiences
  - assertiveness and leadership, including motivation
  - 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.
### Sense-making and decision making

**Description:**
- Knowledge and ability to apply decision-making techniques (Knowledge, understanding and proficiency, A-II-III/2-19.5)
  - situation and risk assessment
  - identify and generate options
  - selecting course of action
  - 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.

### Transformational leadership and leadership development

**Description:**
- Knowledge and ability to develop transformational leadership

**Learning time:**
- Theory classes: 2h
- Practical classes: 4h
- Self study: 4h

**Learning time:**
- Theory classes: 1h 30m
- Practical classes: 3h
- Self study: 20h
280707 - Leadership and Management of Maritime Industries

<table>
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<tr>
<th>Innovation</th>
<th>Learning time: 16h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 2h</td>
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<tr>
<td></td>
<td>Practical classes: 2h</td>
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<td>Self study: 12h</td>
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**Description:**
- Innovation Management
- Intellectual stimulation
- Culture of innovation
- Adapting to Change
- Adoption of new procedures and technology

**Qualification system**

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**

**Basic:**


**Complementary:**