Degree competences to which the subject contributes

Specific:

Transversal:
1. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.

Teaching methodology

Acquire enough technical English competence in order to perform the following actions in this language:
• Read and understand maritime publications
• Understand relevant messages for the safety of the ship
• Communicate in written and oral form in the maritime field
• Incorporate the gender perspective
• Develop adequate reasoning and critical thinking
• Learning to work cooperatively and autonomously

Learning objectives of the subject

Understand maritime technical terminology.
Understand technical manuals and specifications in English. Look for and find information in English online resources. Be able to communicate effectively in English. Plan and deliver oral presentations, respond adequately to questions posed and write basic technical texts correctly. On the other hand, one of the objectives of this subject is provide the knowledge, understanding and proficiency of the competency: Use of spoken and written English. Sufficient knowledge of English so that the officer can use publications on marine machinery and develop his/her duties accordingly, competency required and defined in Section A-III/1 Mandatory minimum requirements for certification of officers in charge of an engineering watch in a manned engine-room or designated duty engine in a periodically unmanned engine-room (propulsion power of 750 kW or more) of the Seafarers Training, Certification and Watchkeeping (STCW) International Code.
This course will evaluate the following STCW competences:
A-III/1-2 and AIII/6-6. Use English in written and oral form and its associated knowledge, understanding and proficiency:
Adequate knowledge of the English language to enable the officer to use engineering publications and to perform the officer’s duties
A-III/1-3 and AIII/6-7. Use internal communication systems and its associated knowledge, understanding and proficiency:
Operation of all internal communication systems on board
A-III/1-1. Maintain a safe engineering watch
Engine-room resource management. Knowledge of engine-room resource management principles, including:
.2 effective communication
.3 assertiveness and leadership
This course is included in the first UPC Gender and Teaching Project whose main aim is to incorporate the gender perspective in different degree courses.

<table>
<thead>
<tr>
<th>Study load</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total learning time:</strong> 150h</td>
</tr>
<tr>
<td>Hours large group: 22h</td>
</tr>
<tr>
<td>Hours medium group: 22h</td>
</tr>
<tr>
<td>Hours small group: 6h</td>
</tr>
<tr>
<td>Guided activities: 10h</td>
</tr>
<tr>
<td>Self study: 90h</td>
</tr>
</tbody>
</table>
## Content

<table>
<thead>
<tr>
<th>(ENG) Types of vessels</th>
<th>Learning time: 29h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td></td>
<td>Practical classes: 4h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 1h</td>
</tr>
<tr>
<td></td>
<td>Guided activities: 2h</td>
</tr>
<tr>
<td></td>
<td>Self study: 18h</td>
</tr>
</tbody>
</table>

**Description:**
Vessels used for the transportation of cargo and passengers: general cargo ships, dry bulk carriers, liquid bulk carriers, container ships, Ro/Ro ships, coasters, reefers, Lash-vessels, heavy-load vessels, timber carriers, multi-purpose vessels and passenger ships.

Assistance and service vessels: tugs, salvage vessels, buoyage vessels, survey vessels, supply boats, SAR-vessels, firefloats, pilot tenders, cable layers, lightships, icebreakers and dredgers. (A-III/1-2) (A-III/6-6)

**Related activities:**
Practical activities: Description of the features of design and function of different types of vessels.

<table>
<thead>
<tr>
<th>(ENG) Ship's particulars</th>
<th>Learning time: 29h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td></td>
<td>Practical classes: 4h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 1h</td>
</tr>
<tr>
<td></td>
<td>Guided activities: 2h</td>
</tr>
<tr>
<td></td>
<td>Self study: 18h</td>
</tr>
</tbody>
</table>

**Description:**
Description of ship's particulars.
Tonnage: displacement, weights and volumes, cargo spaces.
Dimensions: Moulded breadth, moulded depth, beam, length overall, length between perpendiculars, draft, air draft, freeboard and underkeel clearance. (A-III/1-2) (A-III/6-6)

**Related activities:**
Practical activities: description of the main particulars of vessels.
(ENG) Ship's general arrangement plan

**Description:**
Subdivision of a typical vessel.
Foreward section: Fore peak tank, forecastle, chain locker, hawsepipes.
Midship section: holds, tanks, double bottom, bilges.
After section: living quarters, navigation bridge, machinery spaces, after peak tank. (A-III/1-2) (A-III/6-6)
Expressions used to indicate position on board and outside the vessel

**Related activities:**
Practical activities: description of the characteristics and function of the different spaces and separations onboard. Positioning objects onboard and outside the vessel.

---

(ENG) Shipbuilding and classification of ships

**Description:**
Shipbuilding: the main structural parts of a ship, the propulsion system.
Classification of ships: classification societies (Lloyd's Register of shipping, Det Norske Veritas, etc.), the Register Book, surveys, classification symbols. (A-III/1-2) (A-III/6-6)

**Related activities:**
Practical activities: description of the shipbuilding and classification processes. Description of the advantages and disadvantages of the different types of propellers and rudders.
**280638 - Maritime Technical English**

### (ENG) Marine engineering

<table>
<thead>
<tr>
<th>Learning time: 34h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory classes: 6h</td>
</tr>
<tr>
<td>Practical classes: 6h</td>
</tr>
<tr>
<td>Laboratory classes: 2h</td>
</tr>
<tr>
<td>Guided activities: 2h</td>
</tr>
<tr>
<td>Self study: 18h</td>
</tr>
</tbody>
</table>

#### Description:
The course covers diesel engines, the fuel system, lubrication, auxiliary engines, maintenance, repair, overhaul, and survey. It also includes on-board departments and watchkeeping systems.

(A-III/1-2) (A-III/6-6) (A-III/1-3) (AIII/1-1.2; 1.3)

#### Related activities:
Practical activities include describing the applications, advantages, and disadvantages of various types of engines, describing the sequence of events in two-stroke and four-stroke engines, and giving trouble-solving orders. It also covers describing on-board departments and watchkeeping systems.

#### Specific objectives:

### Qualification system

The final mark is calculated as follows:

\[ N_{\text{final}} = 0.5 \cdot N_{\text{pf}} + 0.30 \cdot N_{\text{ac}} + 0.20 \cdot N_{\text{ti}} \]

- \( N_{\text{final}} \): final mark
- \( N_{\text{pf}} \): final exam
- \( N_{\text{ac}} \): continuous assessment
- \( N_{\text{ti}} \): assignments and reports
- \( N_{\text{po}} \): oral presentations

The final exam consists of questions related to the course learning objectives, concerning knowledge or comprehension, and practical and applied tasks.

The continuous assessment involves different brief activities and tests carried out during the course.

The assignments and reports can be individual or cooperative activities, which could be carried out inside the classroom or as homework.

The oral presentations can also be carried out individually or cooperatively.

The reassessment of the course will consist of a unique test including all the content covered to acquire the corresponding learning objectives.

### Regulations for carrying out activities

If any of the classroom tasks or continuous assessment tasks is not carried out, the task will not be marked.

A student will receive the final mark of "Absent" if he/she does not carry out at least 70% of the course assessment activities.
## Bibliography

### Basic:


### Complementary:


### Others resources:

- **Hyperlink**
  - [MarEng Learning Tool](http://mareng.utu.fi)