280815 - Maintenance, Management and Life Cycle Optimization

Coordinating unit: 280 - FNB - Barcelona School of Nautical Studies
Teaching unit: 742 - CEN - Department of Nautical Sciences and Engineering
Academic year: 2020
Degree: MASTER'S DEGREE IN NAVAL AND OCEAN ENGINEERING (Syllabus 2017). (Teaching unit Compulsory)
ECTS credits: 5
Teaching languages: Catalan, Spanish

Opening hours
Timetable: The opening hours will be communicated at the beginning of each period

Teaching methodology
Receive, understand and synthesize knowledge.
Develop reasoning and critical spirit.

Learning objectives of the subject
Develop and manage the engineering of logistical support and the maintenance and repair of ships and artefacts

Study load

<table>
<thead>
<tr>
<th>Total learning time: 45h</th>
<th>Hours large group:</th>
<th>45h</th>
<th>100.00%</th>
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Universitat Politècnica de Catalunya
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## Content

| Management and exploitation of maritime industries | Learning time: 3h  
| Theory classes: 3h |
| Description:  
Management and exploitation of maritime industries. Maintenance management |
| Systems engineer | Learning time: 18h  
| Theory classes: 18h |
| Description:  
Operational and logistic requirements, sustainability, process of obtaining a system, management plans, production and strategies. Application of engineering to a vessel and / or device. Analysis techniques Organization of works |
| Systems logistics | Learning time: 16h  
| Theory classes: 16h |
| Description:  
Life cycle, configuration, life time analysis, reliability, maintenance, logistic support analysis. Maintenance contracts. Application of logistics to a vessel and / or device |
| Costs | Learning time: 8h  
| Theory classes: 8h |
| Description:  
Concepts of price, investment, expense and cost. Application to the project and construction of ship and artifact. Costs of a ship throughout its life. Profitability and business profit |
| Specific objectives:  
STCW KUPs: 2.2 |

## Qualification system

The final grade is the sum of the following partial grades:

\[ N_{\text{final}} = 0.2 \, N_{1c} + 0.2 \, N_{2c} + 0.6 \, N_{a} \]

- \( N_{\text{final}} \): final grade of the subject
- \( N_{1c} \): qualification of the first evaluation
- \( N_{2c} \): qualification of the second evaluation
- \( N_{a} \): qualification of the final evaluation
Regulations for carrying out activities

If one of the assessment activities is not carried out, it will be considered not rated. It will be considered Not Presented when a minimum of 80% of the assessment activities is not carried out.

Bibliography

Basic:


