280713 - Logistics and Management of Maritime and Intermodal Transport

Coordinator: MANUEL GRIFOLL COLLS

Teaching staff

Coordinating unit: 280 - FNB - Barcelona School of Nautical Studies
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering
Academic year: 2019
Degree: MASTER'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT MANAGEMENT (Syllabus 2016). (Teaching unit Compulsory)
MASTER'S DEGREE IN NAVAL AND OCEAN ENGINEERING (Syllabus 2017). (Teaching unit Optional)
ECTS credits: 5
Teaching languages: Spanish

Teaching methodology

The subject will be evaluated by two midterms. Each eliminate fall into this review and both will have the same weight in the final grade.

Learning objectives of the subject

The course focuses on the acquisition of knowledge on intermodal transport and activities and requirements necessary to develop this type of transport.

Study load

<table>
<thead>
<tr>
<th>Total learning time: 45h</th>
<th>Hours large group:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45h</td>
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</table>
### Content

<table>
<thead>
<tr>
<th>Section</th>
<th>Learning time: 12h</th>
<th>Description</th>
<th>Related activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction to intermodal freight transport.</strong></td>
<td></td>
<td>Introduction to intermodal freight transport.</td>
<td>Reading of a scientific or disseminate paper about these topic for further discussion.</td>
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<tr>
<td><strong>Loading units in intermodal transport.</strong></td>
<td></td>
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<td>Reading of a scientific or disseminate paper about these topic for further discussion.</td>
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<tr>
<td><strong>Equipment for cargo handling in intermodal transport.</strong></td>
<td></td>
<td>Equipment for cargo handling in intermodal transport.</td>
<td>Reading of a scientific or disseminate paper about these topic for further discussion.</td>
</tr>
<tr>
<td><strong>Vehicles and systems of intermodal freight transport.</strong></td>
<td></td>
<td>Vehicles and systems of intermodal freight transport.</td>
<td>Reading of a scientific or disseminate paper about these topic for further discussion.</td>
</tr>
<tr>
<td>Topic</td>
<td>Learning time</td>
<td>Description</td>
<td>Related activities</td>
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<tr>
<td>----------------------------------------------------------------------</td>
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<tr>
<td>Infrastructures and terminals for intermodal freight transport</td>
<td>15h</td>
<td>Infrastructures and terminals for intermodal freight transport</td>
<td>Reading of a scientific or disseminate paper about these topic for further discussion.</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
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<td></td>
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<tr>
<td><strong>Related activities:</strong></td>
<td></td>
<td></td>
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<tr>
<td>Introduction to discrete event simulation applied to port terminals</td>
<td>15h</td>
<td>Introduction to discrete event simulation applied to port terminals.</td>
<td>Reading of a scientific or disseminate paper about these topic for further discussion.</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
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<td></td>
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</tr>
<tr>
<td>The problem of the berth assignment</td>
<td>12h</td>
<td>The problem of the berth assignment</td>
<td>Reading of a scientific or disseminate paper about these topic for further discussion.</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
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</tbody>
</table>
### The problem of the handling equipment assignment.

**Description:**
The problem of the handling equipment assignment.

**Related activities:**
Reading of a scientific or disseminate paper about these topic for further discussion.

**Learning time:** 12h
- Theory classes: 1h
- Practical classes: 2h
- Self study: 9h

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### Algorithms to determine the optimal path in the maritime transport (ship routing).

**Description:**
Algorithms to determine the optimal path in the maritime transport (ship routing).

**Related activities:**
Reading of a scientific or disseminate paper about these topic for further discussion.

**Learning time:** 15h
- Theory classes: 2h
- Practical classes: 4h
- Self study: 9h

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### Study case: Port terminal simulation

**Description:**
Implementation of a simulation model about a port terminal.

**Learning time:** 6h
- Theory classes: 6h

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### Study case: intermodal transport chain election

**Description:**
content english

**Learning time:** 3h
- Theory classes: 3h

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**Qualification system**

The final grade for the course will be the average of the notes of the two midterms.