240ICE32 - Steel and Composite Structures

Coordinating unit: 240 - ETSEIB - Barcelona School of Industrial Engineering
Teaching unit: 737 - RMEE - Department of Strength of Materials and Structural Engineering
Academic year: 2017
Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2014). (Teaching unit Optional)
ECTS credits: 4,5  
Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: Frederic Marimon Carvajal

Opening hours

Timetable: Information Campus ATENEA

Teaching methodology
Lectures
Exercises
Case Study

Learning objectives of the subject

Study load

<table>
<thead>
<tr>
<th>Total learning time: 112h 30m</th>
<th>Hours large group:</th>
<th>27h</th>
<th>24.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours small group:</td>
<td>13h 30m</td>
<td></td>
<td>12.00%</td>
</tr>
<tr>
<td>Guided activities:</td>
<td>0h</td>
<td></td>
<td>0.00%</td>
</tr>
<tr>
<td>Self study:</td>
<td>72h</td>
<td></td>
<td>64.00%</td>
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</tbody>
</table>
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Content

<table>
<thead>
<tr>
<th>COURSE DESCRIPTION</th>
<th>Learning time: 1h 30m</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 1h 30m</td>
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Description:
5- Local buckling. Class 4 sections. Effective cross-section properties.
9- Fatigue. Fracture toughness versus temperature.
10- Steel and composite structures under fire. The thermal problem. The mechanical problem. Simplified verification member by member.

Qualification system

Case Study I - 25%
Case Study II - 25%
Final Exam - 50%
IMPORTANT REMARK: Only reevaluation of final exam

Regulations for carrying out activities

Final Exam
- Theory (without documentation support)
- Exercise 1 (full documentation + ATENEA access)
- Exercise 2 (full documentation + ATENEA access)

Bibliography

Others resources:

Hyperlink

Campus Atenea

Campus Atenea