Course guide
240ICE32 - 240ICE32 - Steel and Composite Structures

Unit in charge: Barcelona School of Industrial Engineering
Teaching unit: 737 - RMEE - Department of Strength of Materials and Structural Engineering.
Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2014). (Optional subject).
Academic year: 2023  ECTS Credits: 4.5  Languages: Catalan, Spanish

LECTURER

Coordinating lecturer: Frederic Marimon Carvajal

Others:

TEACHING METHODOLOGY

Lectures
Exercises
Case Study

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>27,0</td>
<td>24.00</td>
</tr>
<tr>
<td>Self study</td>
<td>72,0</td>
<td>64.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>13,5</td>
<td>12.00</td>
</tr>
</tbody>
</table>

Total learning time: 112.5 h
CONTENTS

COURSE DESCRIPTION

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.

Full-or-part-time: 1h 30m
Theory classes: 1h 30m

GRADING SYSTEM

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

EXAMINATION RULES.

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

RESOURCES

Hyperlink:
- Campus Atenea. Campus Atenea