250722 - Advanced Technics in Construction

**Coordinating unit:** 250 - ETSECCPB - Barcelona School of Civil Engineering

**Teaching unit:** 751 - DECA - Department of Civil and Environmental Engineering

**Academic year:** 2019

**Degree:** MASTER'S DEGREE IN STRUCTURAL AND CONSTRUCTION ENGINEERING (Syllabus 2015).

(Teaching unit Optional)

**ECTS credits:** 5  
**Teaching languages:** Catalan, Spanish, English

### Teaching staff

**Coordinator:** ANTONIO AGUADO DE CEA

**Others:** ANTONIO AGUADO DE CEA, JESÚS MIGUEL BAIRÁN GARCÍA, MARIA DEL MAR CASANOVAS RUBIO

### Degree competences to which the subject contributes

**Specific:**

13365. Designing and building using traditional materials (reinforced concrete, prestressed concrete, structural steel, masonry, wood) and new materials (composites, stainless steel, aluminum, shape memory alloys?).

13367. To apply innovative and sustainable technological aspects in the management and implementation of projects and works.

13370. To analyze the multiple technical and legal conditions arising in the construction of public works, and use proven methods and proven technologies with the aim of achieving greater efficiency in construction while respecting the environment and protecting the safety and health of workers and users of public works.

**General:**

13361. To develop, improve and use conventional materials and new construction techniques to ensure the safety requirements, functionality, durability and sustainability.

13362. To define construction processes and methods of organization and management of projects and works.

13363. To design plans for safety, quality and environmental and socioeconomic impacts related to the construction process.

### Learning objectives of the subject
250722 - Advanced Technics in Construction

Study load

<table>
<thead>
<tr>
<th>Total learning time: 125h</th>
<th>Hours large group: 19h 30m</th>
<th>15.60%</th>
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<tbody>
<tr>
<td></td>
<td>Hours medium group: 9h 45m</td>
<td>7.80%</td>
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<tr>
<td></td>
<td>Hours small group: 9h 45m</td>
<td>7.80%</td>
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<td></td>
<td>Guided activities: 6h</td>
<td>4.80%</td>
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<tr>
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<td>Self study: 80h</td>
<td>64.00%</td>
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</tbody>
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Content

**Block 1: General Issues concerning the construction sector**

Learning time: 31h 12m

- Theory classes: 7h
- Practical classes: 4h 18m
- Laboratory classes: 1h 42m
- Self study: 18h 12m

**Block 2: Basics of execution. Policy cases**

Learning time: 31h 12m

- Theory classes: 7h
- Practical classes: 4h 18m
- Laboratory classes: 1h 42m
- Self study: 18h 12m

**Block 3: Aspects específicos implementation**

Learning time: 31h 12m

- Theory classes: 7h
- Practical classes: 4h 18m
- Laboratory classes: 1h 42m
- Self study: 18h 12m

Bibliography

**Basic:**

Antonio Aguado. apuntes de la asignatura.