Course guide
250731 - 250731 - Construction Methods and Project Management

Unit in charge: Barcelona School of Civil Engineering
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering.
Degree: MASTER'S DEGREE IN STRUCTURAL AND CONSTRUCTION ENGINEERING (Syllabus 2015). (Compulsory subject).
Academic year: 2022  ECTS Credits: 5.0  Languages: Spanish, English

LECTURER
Coordinating lecturer: JOSE TURMO CODERQUE
Others: JAVIER PABLO AINCHIL LAVIN, EVA CASACUBERTA ESPLUGAS, SEYEDMILAD KOMARIZADEHASL, GONZALO RAMOS SCHNEIDER, NIKOLA TOSIC, JOSE TURMO CODERQUE

TEACHING METHODOLOGY
There are two groups, one in Spanish and the other in English. The Spanish group is named like this because the teachers' communication will be mostly in Spanish. The communication of the teachers of the English group will be fundamentally in English. The subject consists of 3 hours a week of face-to-face classes in a classroom. The last hour, in general, both groups will merge to allow the development of the practical part and the joint work of both groups. The realization of several practical works is proposed. It is intended that the student develop their ability to work in multidisciplinary, multicultural and international environments. Student queries may be answered in Spanish, Catalan or English. The practical work and the exams can be answered in Spanish, Catalan or English. Support material is used through the virtual campus: content, statement of work and bibliography. The material can be in Spanish, Catalan and English.

Although most of the sessions will be given in the language indicated, sessions supported by other occasional guest experts may be held in other languages.

LEARNING OBJECTIVES OF THE SUBJECT
- Knowledge of the characteristics of the construction sector, their interrelationships and their complexity.
- Getting to the terminology used in the project and construction work with the agents involved in construction and their interrelations.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>19,5</td>
<td>15.59</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>9,8</td>
<td>7.83</td>
</tr>
<tr>
<td>Self study</td>
<td>80,0</td>
<td>63.95</td>
</tr>
<tr>
<td>Type</td>
<td>Hours</td>
<td>Percentage</td>
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<td>------------</td>
</tr>
<tr>
<td>Hours small group</td>
<td>9.8</td>
<td>7.83</td>
</tr>
<tr>
<td>Guided activities</td>
<td>6.0</td>
<td>4.80</td>
</tr>
</tbody>
</table>

Total learning time: **125.1 h**

**CONTENTS**

**Unit 1**

**Description:**
Analysis of project and construction agents
Practical work

**Specific objectives:**
Identify the main parts of the project and building agents and their functions
Developing a practical work that is the technical and economic of planning a real work

**Full-or-part-time:** 51h 36m
Theory classes: 2h
Practical classes: 9h 45m
Laboratory classes: 9h 45m
Self study : 30h 06m

**Unit 2**

**Description:**
Bidding. Technical and economic planning

**Specific objectives:**
Knowing the different bidding strategies and to prepare an offer and a work plan.

**Full-or-part-time:** 4h 48m
Theory classes: 2h
Self study : 2h 48m

**Unit 3**

**Description:**
Occupational risk prevention

**Specific objectives:**
Learn to manage health and safety in construction work.

**Full-or-part-time:** 4h 48m
Theory classes: 2h
Self study : 2h 48m
### Unit 4

**Description:**
Quality and Environmental Management

**Specific objectives:**
Learn to prepare a quality plan and work instructions and learn the basics of environmental management work

**Full-or-part-time:** 4h 48m  
Theory classes: 2h  
Self study: 2h 48m

### Unit 5

**Description:**
Management during execution

**Specific objectives:**
Learn the main tools available to the project manager for adequate technical and financial management of the work

**Full-or-part-time:** 4h 48m  
Theory classes: 2h  
Self study: 2h 48m

### Unit 7

**Description:**
Construction Methods

**Specific objectives:**
Learn the types of reconstruction methods for structures and geotechnical works

**Full-or-part-time:** 22h 48m  
Theory classes: 9h 30m  
Self study: 13h 18m

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**GRADING SYSTEM**

The grade for the subject is obtained from the continuous assessment grades. Continuous assessment consists of doing different activities, both individual and group, of an additive and formative nature, carried out during the course (inside the classroom and outside of it). The evaluation tests consist of carrying out some practical work, in groups, which have a value of 60% of the final grade and an individual exam that has a value of 40%. The realization and delivery in time and form of the practical works is an essential condition to pass the subject.

**EXAMINATION RULES.**

Failure to perform a continuous assessment activity (assignment) in the scheduled period will result in a mark of zero in that activity.
BIBLIOGRAPHY

Basic:
- EquipmentWatch. Rental Rate Blue Book / Cost Recovery.

Complementary: