250720 - Management Skills

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: Spanish, English

Coordinator: ANTONIO AGUADO DE CEA
Others: ANTONIO AGUADO DE CEA, PABLO PUJADAS ÁLVAREZ

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.

Teaching methodology

The course consists of 2,3 hours per week of classroom activity (large size group) and 0,3 hours weekly with half the students (medium size group).

The 2,3 hours in the large size groups are devoted to theoretical lectures, in which the teacher presents the basic concepts and topics of the subject, shows examples and solves exercises.

The 0,3 hours in the medium size groups is devoted to solving practical problems with greater interaction with the students. The objective of these practical exercises is to consolidate the general and specific learning objectives.

The rest of weekly hours devoted to laboratory practice.

Support material in the form of a detailed teaching plan is provided using the virtual campus ATENEA: content, program of learning and assessment activities conducted and literature.

Learning objectives of the subject

Subject to provide criteria, knowledge and reflection on the values and qualities of a good manager
250720 - Management Skills

- Knowledge of criteria, knowledge and reflections on the qualities and values of a good manager. - Ability to discover, internalize and assess the impact of personal behavior as part of a team.


The interest of the Endesa-Chair Victoriano Muñoz Oms and this course in particular as a complementary training technique lies in the contribution of knowledge and values with which to enhance the role of the engineer in professional and business world today with a commitment to open, inclusive and accountable. This subject has as objective to provide students criteria, knowledge and reflection on the qualities and values that a good manager must show, in addition to creating a conceptual framework that goes beyond the company itself as an organization exploring the role of that the current social and economic context.

### Study load

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning time:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endesa - VMO and this course</strong></td>
<td>6h 14m</td>
<td>Promote human values in engineering is the main objective of the Chair. Highlights the importance that today is having a solid formation in values. Talk about the figure which gives its name to the Chair Victoriano Muñoz Oms, and the values it represented an engineer at the time.</td>
</tr>
<tr>
<td><strong>The engineer in the current context</strong></td>
<td>18h 28m</td>
<td>Today engineers are very different positions in outstanding companies in the world. We will also see another side of the engineer much in line with current trends, the entrepreneur. Analyze the evolution of the engineers in recent decades and its contribution in the current context.</td>
</tr>
<tr>
<td><strong>The director</strong></td>
<td>20h 09m</td>
<td>Directing is a task that requires specific skills and knowledge. Deepen leadership, creativity, innovation, motivation, communication, among others, analyzing the traits we value a good management and learning to recognize those who do not wish to play. We will try to create a mental map that allows us to act accordingly in the future professional.</td>
</tr>
<tr>
<td><strong>Changes in society</strong></td>
<td>24h</td>
<td>Neither the engineers nor the managers are alien to the world around them. Declaration of Human Rights in the current context. Analyze social changes produced in recent decades and how they have affected the company, its composition, its expectations and its problems, as the context in shape when developing their work.</td>
</tr>
</tbody>
</table>
The mark of the course is obtained from the ratings of continuous assessment and their corresponding laboratories and/or classroom computers.

Continuous assessment consist in several activities, both individually and in group, of additive and training characteristics, carried out during the year (both in and out of the classroom).

The teachings of the laboratory grade is the average in such activities.

The evaluation tests consist of a part with questions about concepts associated with the learning objectives of the course with regard to knowledge or understanding, and a part with a set of application exercises.

Failure to perform a laboratory or continuous assessment activity in the scheduled period will result in a mark of zero in that activity.

**Bibliography**

**Basic:**

---