250259 - IMPSOCOP - Social Impacts of the Public Constructions

Coordinating unit: 250 - ETSECCPB - Barcelona School of Civil Engineering
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering
Academic year: 2017
Degree: BACHELOR'S DEGREE IN PUBLIC WORKS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
ECTS credits: 4,5
Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: MIRIAM VILLARES JUNYENT
Others: ELISABETH ROCA BOSCH, MIRIAM VILLARES JUNYENT

Opening hours
Timetable: Thursday, 12 to 14 h.

Degree competences to which the subject contributes

Transversal:
590. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 3. Taking social, economic and environmental factors into account in the application of solutions. Undertaking projects that tie in with human development and sustainability.

Teaching methodology

The course consists of 2.3 hours per week of classroom activity (large size group) and 0.7 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 0.7 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.

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

Proporcionar a l'alumne uns coneixements bàsics a l'entorn de l'impacte social de les obres públiques des dels diferents mètodes d'anàlisi i casos d'estudi. Entendre els conceptes bàsics que s'utilitzen a l' àmbit de l'urbanisme i l'enginyeria civil. Conèixer els principals efectes de les infraestructures en el medi urbà i entendre l' efecte modificador que produeixen les infraestructures sobre el territori, potencialitats i flaqueses de la relació causa efecte. Proporcionar al alumno unos conocimientos básicos en torno del impacto social de las obras públicas desde los diferentes métodos de análisis y casos de estudio. Entender los conceptos básicos que se utilizan en el ámbito del urbanismo y la ingeniería civil. Conocer los principales efectos de las infraestructuras en el medio urbano y entender el efecto modificador que producen las infraestructuras sobre el territorio, potencialidades y flaquezas de la relación causa efecto. To provide students with basic knowledge in the area of the social impact of public works from different methods of analysis and case studies. Understand the basic concepts used in the field of civil engineering planning. Knowing the main effects of infrastructure in urban and understand the effect modifier producing infrastructure on the territory, potential and weaknesses of cause and effect relationship.
### Study load

<table>
<thead>
<tr>
<th>Total learning time: 112h 30m</th>
<th>Theory classes: 28h 24.89%</th>
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<tbody>
<tr>
<td>Practical classes: 7h 6.22%</td>
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<tr>
<td>Laboratory classes: 10h 8.89%</td>
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<tr>
<td>Guided activities: 4h 30m 4.00%</td>
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<tr>
<td>Self study: 63h 56.00%</td>
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# Content

<table>
<thead>
<tr>
<th><strong>THE SOCIAL IMPACTS OF PUBLIC WORKS</strong></th>
<th><strong>Learning time:</strong> 55h 12m</th>
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</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Theory classes: 6h</td>
</tr>
<tr>
<td></td>
<td>Practical classes: 6h</td>
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<tr>
<td></td>
<td>Laboratory classes: 11h</td>
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<tr>
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<td>Self study : 32h 12m</td>
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- Definition and concept of social impact. The social perception of impacts. The historical and territorial context of social awareness.
- The content of impact assessment studies. The assessment of social and urban issues. The valuation methods: quantitative and qualitative.
- Description and analysis of key legal texts
- Demographic analysis: age structure, family structure, socio-professional, etc.. territorial distribution and trends.
- Status and population trends in Catalonia
- Conduct a practical exercise

The social structure. Stakeholders / social agents

- Analysis of the conflict: origins, types, effects …
- Methods to minimize conflict: consensus and participation

**Methods to characterise and define impacts**

**Specific objectives:**

- Introducing the subject. Making the student understand the transformative potential of public works on territory and society. Explain the context of these from the second half of S. XX to the present.
- To understand the impact of public works projects on the physical, social and ecological environment from different valuation methods. To present the main methodological tools. To understand the administrative procedure of the current legislation.
- To disseminating the legislation and the administrative hierarchy in the different territories.
- To understand the impact of public works projects on the physical, social and ecological environment from different valuation methods. To present the main methodological tools. To understand the administrative procedure of the current legislation.
- Exercise identification and classification of actors
- Financial Analysis
- Exercise assessment
### Social and Environmental impacts in the urban environment

**Learning time:** 24h  
- Theory classes: 10h  
- Self study: 14h

**Description:**  
Classification and description of the effects of major infrastructures in urban areas. 

Study of the affected neighborhoods. Analysis of proposals and solutions adopted. The transformations of urban form.

**Specific objectives:**  
- To disseminate the main effects of infrastructures based on the analysis of the changes that have occurred in the city.  
- Understanding the transformative effect of infrastructure in the city.  
- Understand and reflect on the effects of the urban infrastructure.

### The social, economic and environmental infrastructure on the territory

**Learning time:** 28h 47m  
- Theory classes: 12h  
- Self study: 16h 47m

**Description:**  
Direct effects on the construction period and on the management of infrastructures. 
Induced effects on economic activities and sectors of production (industrial location, the creation of technology parks, tertiary and commercial location, changes in the agricultural sector, in the tourism sector). 
The impacts on the hierarchy of cities and the residential expansion and concentration.


Case study of the Ebro Delta canalization. Evolution and transformation of the delta. The social, economic and institutional agents. The effects on the population, agriculture, environment protection. Transformations: the case of mini water transfer to Tarragona, the water conflicts and the consequences of PHN. 
Case study of intervention in beach renourishment. Description of the coastal environment, uses and problems of the Catalan coast. Technical assistance and management of beaches. The effects of change.

**Specific objectives:**  
- To understand the modifying effect of infrastructures on the territory, their strengths and weaknesses. Positive and negative effects.  
- Understanding the effect modifier interventions and actions that occur on the open techniques, potentials and weaknesses of the relationship between cause and effect.
Qualification system

The rating will be obtained from the continuous assessment marks relating to tests of knowledge, delivery of exercises, and course work.

Continuous assessment involves making different activities, both individual and group training and additive nature, made during the year (in the classroom and outside of it).

The rating depends on knowledge tests, exercises and classroom presentations corresponding to 50%, the other 50% is taken note of the work group (which is required).

Criteria for re-evaluation qualification and eligibility: Students that failed the ordinary evaluation and have regularly attended all evaluation tests will have the opportunity of carrying out a re-evaluation test during the period specified in the academic calendar. Students who have already passed the test or were qualified as non-attending will not be admitted to the re-evaluation test. The maximum mark for the re-evaluation exam will be five over ten (5.0). The non-attendance of a student to the re-evaluation test, in the date specified will not grant access to further re-evaluation tests. Students unable to attend any of the continuous assessment tests due to certifiable force majeure will be ensured extraordinary evaluation periods.

These tests must be authorized by the corresponding Head of Studies, at the request of the professor responsible for the course, and will be carried out within the corresponding academic period.

Regulations for carrying out activities

Raised five practical activities throughout the year to perform in class. They must deliver a minimum of four. The course work is required.

Bibliography

Basic:


Complementary: