Coordinating unit: 310 - EPSEB - Barcelona School of Building Construction
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering
Academic year: 2018
Degree: BACHELOR'S DEGREE IN GEOINFORMATION AND GEOMATICS ENGINEERING (Syllabus 2016).
(Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: JOSEP MERCADÈ ALOY
Others: ROBERT VERGES FERNANDEZ - ELISABETH ROCA BOSCH - MIGUEL YURY MAYORGA CARDENAS - MARIA TERESA NAVAS FERRER - FRANCESC MAGRINYA TORNER - JOSEP MERCADÈ ALOY

Degree competences to which the subject contributes

Specific:
1. Aptitude and capacity to develope analysis and territorial plannification and territorial sustainability in the work with interdisciplinary teams.

Transversal:
3. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.
4. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
6. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 1. Analyzing the world’s situation critically and systemically, while taking an interdisciplinary approach to sustainability and adhering to the principles of sustainable human development. Recognizing the social and environmental implications of a particular professional activity.
7. 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.
8. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.

Teaching methodology

Theoretical classes
Expositive participatory class
Practices
Teamwork
Autonomous work

Learning objectives of the subject

The student is trained to comprehend the different occupation models, production and management of the territory in the current legislative framework, also with its possible professional exit in the most relevant environments of urabnism and territory ordenation.
### Study load

<table>
<thead>
<tr>
<th>Total learning time</th>
<th>Hours large group</th>
<th>Hours medium group</th>
<th>Self study</th>
</tr>
</thead>
<tbody>
<tr>
<td>150h</td>
<td>24h</td>
<td>36h</td>
<td>90h</td>
</tr>
</tbody>
</table>

- Total learning time: **150h**
- Hours large group: **24h** (16.00%)
- Hours medium group: **36h** (24.00%)
- Self study: **90h** (60.00%)
## Introductory principles about Urbanism. The new model of urbanistic development

**Learning time:** 6h  
**Theory classes:** 6h

**Description:**  
- Presentation of the subject  
- Evolution of the occupation models and transformation of the territory  
- Legal and regulatory framework

## Legal and regulatory framework

**Learning time:** 2h  
**Theory classes:** 2h

**Description:**  
- Evolution of the legal framework  
- Legal and regulatory framework current in Catalonia

## The mobility and accessibility

**Learning time:** 4h  
**Practical classes:** 4h

**Description:**  
- The mobility like a basic conditioning of the territorial transformation  
- The accessibility as an indicator of territorial instability

## Basic concepts

**Learning time:** 14h  
**Theory classes:** 4h  
**Self study:** 10h

**Description:**  
- The classification of the ground  
- The qualification of the ground  
- Zones and systems  
- Parameters of ordenation and use
## Territorial planning

**Learning time:** 14h
- Theory classes: 2h
- Practical classes: 2h
- Self study: 10h

**Description:**
- The Territorial Plan of Catalonia
- The Partial Territorial Plans
- The Territorial Director Plans
- The Territorial Sectorial Plans

## Urbanistic planning

**Learning time:** 16h
- Theory classes: 3h
- Practical classes: 3h
- Self study: 10h

**Description:**
- Urbanistic Director Plans
- Municipal Urbanistic Ordenation Plans
- Derivated Urbanistic Plans

## Territorial systems

**Learning time:** 14h
- Theory classes: 4h
- Self study: 10h

**Description:**
- Concept of territorial system
- Types of territorial systems
- The lecture of territory instruments
- The urban growth and territorial systems
- The infrastructures (roads, railways, ports, airports)
### Urbanisitic management

<table>
<thead>
<tr>
<th>Description:</th>
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</thead>
<tbody>
<tr>
<td>- Execution of urbanistic planning</td>
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<tr>
<td>- The ways of urban growth and the execution of urbanistic planning</td>
</tr>
<tr>
<td>- The delimitation by sectors and polygons</td>
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<tr>
<td>- Equitable sharing of benefits and charges.</td>
</tr>
<tr>
<td>- Urbanization expenses</td>
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<tr>
<td>- The different systems of urbanistic actuation</td>
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<tr>
<td>- Actuation urban systems by Reparcelation. Modalities</td>
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<tr>
<td>- Actuation urban systems by expropriation</td>
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<tr>
<td>- The reparcelation as an instrument of management</td>
</tr>
<tr>
<td>- Determination of rights</td>
</tr>
<tr>
<td>- Urbanistic criteria of estate adjustment</td>
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<tr>
<td>- Calculus of charges</td>
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<tr>
<td>- Provisional calculus liquidation</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning time: 19h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Practical classes: 2h</td>
</tr>
<tr>
<td>Guided activities: 3h</td>
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<tr>
<td>Self study: 10h</td>
</tr>
</tbody>
</table>

### Urban services and urbanization project

<table>
<thead>
<tr>
<th>Description:</th>
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<tbody>
<tr>
<td>- Network of urban services</td>
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<tr>
<td>Basic technological determinants for the functioning of each urban service (mobility, sewage system, drinking water, streetlight, gas and telecommunications)</td>
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<tr>
<td>- Unfolding and disposition in the urban space</td>
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<tr>
<td>Unfolding structure and functional element disposition of each network of urban services.</td>
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<tr>
<td>- The urbanization project</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Learning time: 14h</th>
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</thead>
<tbody>
<tr>
<td>Theory classes: 2h</td>
</tr>
<tr>
<td>Practical classes: 2h</td>
</tr>
<tr>
<td>Self study: 10h</td>
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</tbody>
</table>
Urbanistic planning, environement and sustainable developement

**Description:**
- Urbanistic planning and environment
- Environmental evaluation of the Urbanistic planning
- Environmental sustainability reports ISA
- Studies of landscape integration and environmental impact
- Urbanistic planning and sustainable development
- Sustainable urban implantations
- The alternative energies in the territory planning

**Learning time:** 14h
- Theory classes: 4h
- Self study: 10h

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### Planning of activities

#### ACTIVITY A

**Hours:** 4h
- Self study: 4h

**Description:**
A) The student chooses a town and a derivated planning developed in urban soil with the goal of carrying out the works that are explained next:

a1. Summary and interpretation of the determinations of general and partial territorial planning for the case of the town chosen by the student.

a2. Description and characterization of the current general planning in the town chosen by the student, and the fitting with the general planning studied in the first project.

a3. Description and characterization of the derivated planning by the student according to the established in this document and the general planning that develops.

#### ACTIVITY B

**Hours:** 4h
- Theory classes: 4h

**Description:**
B) The student carries out a proposition of repurculation for the derivated planning chosen in the activity (A) with a structure of hypothetical property, given by the professor.

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### Qualification system

50% Exams - 50% Activities

Exam 1 (According to midterm exams calendar)

Oral defense of activities and final delivery (Last day of the course)

Exam 2 (According to final exams calendar)
Bibliography

Basic:


Others resources: