Course guides
310750 - 310750 - Gis and Territory

Unit in charge: Barcelona School of Building Construction
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering.
Degree: BACHELOR’S DEGREE IN ARCHITECTURAL TECHNOLOGY AND BUILDING CONSTRUCTION (Syllabus 2019).
(Optional subject).
Academic year: 2021  ECTS Credits: 3.0  Languages: Spanish

LECTURER
Coordinating lecturer: Mercedes Sanz Conde

PRIOR SKILLS
Solid knowledge of computer tools.

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Transversal:
04 COE N3. 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.
06 URI N3. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.

TEACHING METHODOLOGY
Master classes.
Laboratory practice.
Team practice.
Autonomous work.

LEARNING OBJECTIVES OF THE SUBJECT

Geographic Information Systems are tools that allow the capture, analysis and representation of geo-referenced information for decision-making. The objectives pursued in this introductory course, are to achieve the use of these tools and their relationship with the BIM.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>40.00</td>
</tr>
<tr>
<td>Self study</td>
<td>45,0</td>
<td>60.00</td>
</tr>
</tbody>
</table>

Total learning time: 75 h
## CONTENTS

### Theme 1. Introduction to Cadastre.

**Description:**
In this first theme of the subject, the origins and evolution of the cadastre and the management of cadastral data will be studied.

**Specific objectives:**
Acquire basic knowledge of cadastral management and documentation.

**Full-or-part-time:** 10h
- Theory classes: 6h
- Self study: 4h

### Theme 2. Introduction to GIS.

**Description:**
Basic concepts of GIS.

**Full-or-part-time:** 3h
- Theory classes: 2h
- Self study: 1h

### Theme 3. ArcGIS PRO.

**Description:**
The student will learn to work with GIS software.

**Related activities:**
Activity 1 and 2.

**Full-or-part-time:** 31h
- Theory classes: 5h
- Laboratory classes: 6h
- Self study: 20h

### Theme 4. Data analysis and representation.

**Description:**
Tools for analyzing and representing vector data with a GIS.

**Related activities:**
Activity 3 and 4.

**Full-or-part-time:** 31h
- Theory classes: 5h
- Laboratory classes: 6h
- Self study: 20h

## GRADING SYSTEM

- Week 4: first test 15%
- Partial week: second test 15%
- Delivery of the four activities 60%
- Delivery of class exercises 10%
EXAMINATION RULES.

All tests are mandatory.

BIBLIOGRAPHY

Basic:

RESOURCES

Computer material:
- ArcGIS PRO. Resource

Other resources:
QGIS