

30758 - Cartographic methods for the city and the territory

Syllabus Information

Academic year: 2023/24

Subject: 30758 - Cartographic methods for the city and the territory

Faculty / School: 110 - Escuela de Ingeniería y Arquitectura

Degree: 470 - Bachelor's Degree in Architecture Studies

ECTS: 6.0

Year: 5

Semester: Second semester

Subject type: Optional

Module:

1. General information

This subject is part of the itinerary 'Urban project and landscape' of the degree. This is a transversal subject, in which two different areas of knowledge are involved: Architectural and Urban Graphic Expression and Territorial Planning. The two areas involved work in parallel to contribute to obtaining analytical criteria and proposals on the city and the territory, as well as the necessary tools to intervene in them. The objective of it is twofold: on the one hand, to learn new ways of reading and understanding the city and the territory; on the other hand, to provide the necessary tools for its analysis, focused on cartographic representation techniques based on Geographic Information Systems (GIS).

These approaches and objectives are aligned with the Sustainable Development Goals (SDGs) of the 2030 Agenda to the extent that mapping is a tool not only for representing reality, but above all for transforming it. It is precisely this transformative capacity that will be able to help solve the challenges of our urban environments and territories in relation to urban agendas and sustainable development.

2. Learning results

- To know the basics of graphic representation oriented to urban and landscape design, with its specific and differentiating features, making a historical tour of the most representative maps.
- To know the different techniques, manual and computerized, existing and currently used.
- Know how to interpret and apply commonly used graphic conventions; at the same time, being able to devise original graphic strategies for specific projects.
- Master the different ways of plotting maps and the type of information and representation associated with each of them. Master the different representation systems (plans, sections, diagrams, perspectives, etc.) and the type of information associated with each of them.
- To be able to manage, analyze and interrelate graphic documents from different sources and of different sizes, and to integrate them graphically in their projects.

3. Syllabus

The program is developed in theoretical and practical sessions.

The theoretical sessions are developed around three blocks. The first one, 'Operative mapping', uncovers the transforming capacity of cartography, reviewing how the way of representing the territory is inextricably linked to the way conceives and projects it. The second, 'Mapping methods', thematically recognizes some cartographic landmarks useful for reflection and urban planning. Finally, 'Advanced Mapping', envisions the capacity that new techniques and data sources have on the transformation of our urban environments.

In parallel, in the practical sessions, we will work with Geographic Information Systems (GIS), useful for the elaboration of complex analyses of the urban environment and landscape, learning how to use them through the use of free open source software (QGIS).

4. Academic activities

Participated lectures: sessions in which the contents of the subject will be explained.

GIS practices: sessions on the use and management of Geographic Information Systems (GIS), with final elaboration of an individual practical exercise.

Cartographic workshop: sessions for the development and follow-up of an individual cartographic work, based on a theme proposed by the teachers at the beginning of the course and agreed with each student.

Teaching assignments, study of the subject, practical activities.

Evaluation tests.

5. Assessment system

The assessment will be carried out in the **global assessment** modality, by means of the following activities:

- **Activity 1. GIS practices** (40% of the grade). Delivery of the material worked throughout the course in the individual class practices on Geographic Information Systems (GIS).
- **Activity 2. Individual cartographic work** (60% of the grade). Delivery and public defense of a cartographic work.

The originality and complexity of the subject, the design of the cartographic process, the justification of arguments, as well as the final graphic quality of the work.