30756 - Urban mapping

Información del Plan Docente

Academic Year	2018/19
Subject	30756 - Urban mapping
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

1.1.Aims of the course

1 That the student has a training in advanced and specific graphic expression in his chosen path.

2 That the student receives training in graphic expression applied to the developed works.

3 That the student works with specialized computing tools in the urban and landscape graphic representation, particularly those linked to the GIS.

1.2.Context and importance of this course in the degree

This course is into the itinerary "Proyecto urbano y paisaje" of the degree and it is imparted by Graphic Architectural Expression and Urbanism areas together.

It is imparted in the last year of the degree, so the student has already mastered the fundaments of the urban discipline, architectural graphic expression and the management of several computing tools. With this background, the course expect provide the student with:

1) Theoretical knowledge about new ways of understanding the city through the "*mapping".*

2) Advanced knowledge in the use of specific computer tools of urban and landscape graphic representation, that work as implementation of the basic CAD tools.

1.3.Recommendations to take this course

Mapping Urbanism is an elective course of six ECTS credits, which is offered in the Bachelor Studies in Architecture at the University of Zaragoza, in the line of intensification of Landscape and Urban Design. It is recommended as a supplement to this course, to take the elective courses of Cultural Landscapes and Landscape Design.

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2.Learning goals

2.1.Competences

1 To manage and interpret current and historical urban graphic documents.

2 To work with actually graphic representation computer tools.

3 To interpret and employ the most common standard graphics; and to plan personal graphic strategies to the specific projects.

4 Master different ways to represent maps and the associated information and representation.

5 To analyze, manage and interrelate graphic documents from several sources and different scales, and integrate it graphically in the projects.

2.2.Learning goals

1 The student knows the fundaments of graphic representation oriented to the urban and landscape project, with its specific characteristics, making a historic tour to the most representative maps.

2 The student knows the different handmade and current computer techniques.

3 The student is capable of read and employ the most common standard graphics; at the same time, is capable of planning his own graphics strategies to the specific projects.

4 The student domains the different ways to represent the maps and the kind of information and the associate representation to each one. Domains the different kinds to representation (plans, sections, diagram, etc.) and the kind of information associated to each one.

5 The student is capable of analyze, manage and interrelate graphic documents of several sources and different sizes, and integrate them graphically in his projects.

2.3.Importance of learning goals

The importance of the learning outcomes of this course is to obtain analytical and proactive urban and landscape environmental criteria, as well as the provision of the necessary tools for its graphic realization. Additionally it is a student's level of specialization that distinguishes Zaragoza`s curriculum compared to other Spanish and European studies, and facilitate their entry into the job market.

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

The overall assessment of the student is made ​​according to the following method:

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Assessment will be based on the practical contents. It will be done by the delivery of the work developed throughout the course and by several oral presentations on the topics covered in theory. It will be composed by different kind of works: class practices aimed at monitoring and understanding of GIS, presentations on the discussions of the proposed themes and the final research project. The practical works will be the 100 % of the score. The student can submit the (GIS) exercises progressively to have the opportunity to improve them.

Assessment of non- face students

Students who cannot attend classes during the semester must submit the required work to other students in the evaluation date indicated by the center and make a test. The work submitted and the test will be 100% of the course score.

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The learning process is mainly based on the student's own work, supervised and advised by the teacher. Since the student is in the final year of the degree, he is expected to have a certain level of expertise and initiative enough for autonomous management. However, the teacher monitors the student work during the practical sessions. Moreover, the theory sessions provide the necessary resources to the satisfactory development of the practical work.

4.2.Learning tasks

The course is divided into 1h theoretical sessions and 3h practical workshop sessions throughout the semester.

The practical sessions are based on a personal work developed by the student and achieved through personalized and intensive coaching. The student works with his computer.

The theoretical sessions provide essential learning tools and the necessary content for the student to develop their final project.

4.3.Syllabus

The course is developed in three blocks. The first one, "Mapping urban forms" consider different traditions of mapping socioecological systems, its morphology, patterns and processes. The second one, "Mapping landscape urbanism plans and projects", analyzes ways of representation in theses sub disciplines. The third one, "Advanced Mapping" is focused on new techniques of Urban Mapping.

We will examine various urban thematic and urban planning maps, with short presentations and readings on different case studies. A workshop on Mapping techniques focused on GIS (Geographic Information Systems) will be held in the second part of the classes. For this purpose, we will use QGIS: A Free and Open Source Geographic Information System.

4.4.Course planning and calendar

Theory and methodology: some theoritical lesson wil be given focused at the begining of the course. Some useful examples for the students work will be shown and discussed during the lessons.

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The course consists on theoretical and practical sessions, evaluated with a series of practical exercise, corresponding to this two parts. The exercises of the practical part will be mainly made in class. In the theoretical part the students will make presentations related to the proposed texts, critical debates and discussions, and midcourse corrections of the final exercise. There is no theoretical examination.

4.5.Bibliography and recommended resources

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Space Syntax Laboratory

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The Nolli Roma map

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