

## 66714 - Applied to the Resolution of Environmental Problems Cartography

### Información del Plan Docente

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|------------------|---|
| Academic Year    | 2017/18   |
| Faculty / School | 103 - Facultad de Filosofía y Letras              |
| Degree           | 328 - Master's in Land and Environmental Planning |
| ECTS             | 6.0   |
| Year             | 1   |
| Semester         | Annual  |
| Subject Type     |   |
| Module           | ---   |

### **1.General information**

#### **1.1.Introduction**

#### **1.2.Recommendations to take this course**

#### **1.3.Context and importance of this course in the degree**

#### **1.4.Activities and key dates**

### **2.Learning goals**

#### **2.1.Learning goals**

#### **2.2.Importance of learning goals**

### **3.Aims of the course and competences**

#### **3.1.Aims of the course**

#### **3.2.Competences**

### **4.Assessment (1st and 2nd call)**

#### **4.1.Assessment tasks (description of tasks, marking system and assessment criteria)**

### **5.Methodology, learning tasks, syllabus and resources**

#### **5.1.Methodological overview**

The learning and teaching methodology developed in the course is aimed to promote the attainment of its objectives. A wide range of teaching and learning activities is implemented, such as interactive lessons, practical exercises, individual or group activities, directed activities, field work and private study.

A high level of student participation will be required from all students throughout the course.

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Extensive material will be available *via* the Moodle site of the course. This offers a variety of resources including a repository of the lecture notes used in class, a course syllabus as well as other forms of course-specific materials, including a discussion forum.

### 5.2.Learning tasks

Lecture sessions: 9 hours

Interactive, individual or group activities: 8 hours

Field work: 16 hours

### 5.3.Syllabus

The lecture course will address the following main issues:

1. Cartography: principles and elements.
- 2.Principles, instruments and methodologies for acquiring spatial information:
  - 2.1. Direct methods: GNSS, submetric GPS.
  - 2.2. Indirect methods: georeferencing images,.
  - 2.3. Indirect methods: Web Servers.
3. Raster modeling and analysis of environmental information :
  - 3.1. Digital Elevation Model
  - 3.2. Main modelling and analysis tools.
  - 3.3. Map algebra.
4. Cartographic editing toolset.
5. Web Map Server: Spatial data infrastructures (SDI and metadata).
6. Format for preparation of project report.

### 5.4.Course planning and calendar

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The course is divided into 6 thematic blocks. The first block includes the following topics: 1 and 2; it runs during the first week. The second thematic block includes the topics 3 and runs during the 4 weeks following. The final blocks 4,5,6 covers the topics cartographic, project and develops during the final 3 weeks of the course.

For further details concerning the timetable, classroom and other information of the course please refer to the "Facultad de Filosofía y Letras" web site (<https://fyl.unizar.es/horario-de-clases#overlay-context=horario-de-clases>)

### 5.5. Bibliography and recommended resources

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