

28304 - General cartography

Información del Plan Docente

Academic Year	2017/18
Faculty / School	103 - Facultad de Filosofía y Letras
Degree	419 - Degree in Geography and Land Management
ECTS	6.0
Year	1
Semester	First semester
Subject Type	Compulsory
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 *Cartografía general* 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. 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 as well as other forms of course-specific complementary materials.

5.2.Learning tasks

Lecture sessions

Given the eminently practical character of this course there are few sessions that we might consider to be definitely as lecture sessions. Usually, after a brief presentation of the conceptual and methodological aspects of the program we introduce interactive, individual or group activities. There are frequent consultations of web pages related to the subject of study and comment of printed cartography. Also diverse teaching and learning skills are put into practice to encourage the participation of students like class whispering, brainstorming, forums, etc. The students have in the *Anillo Digital Docente* (Moodle Site) a repository of the lecture notes used in class as well as other forms of course-specific complementary materials (web pages links, analogical and digital cartographic resources, etc.).

Interactive, individual or group activities and Laboratory sessions

These practical sessions will take place in the assigned classroom or, punctually, in the computer classroom. Beginning every session the necessary information will be facilitated to the student to carry out the tasks to be developed in the practice. Among the activities that are programmed we can stand out: practices related to the access and handling of cartographic resources in Internet; comment of different types of maps; practices related to the handling and analysis of the topographic map; scales problems; exercises of spatial orientation on the map and on the field (handling of compass and GPS); making and handling of Digital Elevation Models and development of derivative information (illumination, contours, slope, aspect, topographic profiles, 3-D visualization, etc.).

Field work

In this session diverse skills related to spatial orientation on the map and on the field will be practiced (use of the compass and GPS, map orientation).

Directed activities

They are implemented to help the students to carry out the works and exercises that they must solve individually and also as a help to solve doubts related with the theoretical and practical program of the course.

5.3.Syllabus

The lecture course will address the following main issues:

Thematic block I. Cartography. Theme 1. General concepts: introduction to the cartographic document. Theme 2. The historical process of the Cartography.

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Thematic block II. Essentials of Geodesy. Theme 3. Basic concepts of Geodesy. Theme 4. The cartographic projections.

Thematic block III. The Topographic Cartography. Theme 5. The National Topographic Map. Theme 6. Methods of representation of the relief. Theme 7. Web Map Services (WMS): available resources in topographic cartography.

Thematic block IV. Spatial relationships. Theme 8. The scale. Theme 9. Calculation of distances and areas.

Thematic block V. Spatial Reference. Theme 10. Determination of geographical and UTM coordinates. Theme 11. Orientation. Theme 12. Global Positioning Systems: essentials and applications in Geography.

Thematic block VI. Analysis of topographic variables. Theme 13. Calculation and mapping of topographic variables: heights, slopes, topographic profiles. Theme 14. Digital Elevation Models: development of derivative information .

5.4.Course planning and calendar

The course *Cartografía general* is divided into 6 thematic blocks. The first and second blocks are introductory and include the themes 1 to 4; they run during the first four weeks of the term. The thematic blocks 3-5 include the themes 5 to 12; they are taught during the middle and final part of the semester. The thematic block 6 covers the themes 13 and 14 and develops during the final three 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

Basic bibliography:

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