Universidad Zaragoza

Year : 2018/19

66714 - Applied to the Resolution of Environmental Problems Cartography

Syllabus Information

Academic Year:	2018/19
Subject:	66714 - Applied to the Resolution of Environmental Problems Cartography
Faculty / School:	103 -
Degree:	328 - Master's in Land and Environmental Planning
ECTS:	6.0
Year:	1
Semester:	Annual
Subject Type:	
Module:	---

General information

Aims of the course

Context and importance of this course in the degree

Recommendations to take this course

Learning goals

Competences

Learning goals

Importance of learning goals

Assessment (1st and 2nd call)

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

Methodology, learning tasks, syllabus and resources

Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as participative sessions, practical exercises, individual or group activities, guided activities, field work and autonomous work.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials, including a discussion forum.

Learning tasks

The course includes the following learning tasks:

- Lectures: 9 hours
- Interactive, individual or group activities: 8 hours
- Field work: 16 hours

Syllabus

The course will address the following topics:

Topic 1. Cartography: principles and elements.

Topic 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.

Topic 3. Raster modeling and analysis of environmental information.

3.1. Digital Elevation Model.

3.2. Main modelling and analysis tools.

3.3. Map algebra.

Topic 4. Cartographic editing toolset.

Topic 5. Web Map Server: Spatial data infraestructures (SDI and metadata).

Topic 6. Preparation and format of the project report.

Course planning and calendar

The course is divided into 6 sections. The first section includes the followig topics: 1 and 2; it runs during the first week. The second section includes topic 3 and runs during the following 4 weeks. The final sections 4,5,6 cover the topics of cartograpich and the project; they run during the final 3 weeks of the couse.

Further information concerning the timetable, classroom, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the "Facultad de Filosofía y Letras" website (https://fyl.unizar.es/horario-de-clases#overlay-context=horario-de-clases)

Bibliography and recommended resources

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JIMÉNEZ, J. y MONTEAGUDO, E. (Eds.) (2001): La documentación cartográfica. Tratamiento, gestión y uso, Publicaciones de la Universidad de Huelva, Huelva.

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MANCEBO, S., ORTEGA, E., MARTÍN, L. y VALENTÍN, A.C. (2009): Libro SIG: aprendiendo a manejar los SIG en la gestión ambiental: ejercicios, Madrid, 149 pp.

MARTÍNEZ-ALEGRÍA, R. (2003): Sistemas de Información Geográfica. Aplicaciones prácticas con IDRISI32 al análisis de riesgos naturales y problemáticas medioambientales, Madrid, 248 pp.

ORDÓÑEZ, C. y MARTÍNEZ-ALEGRÍA, R. (2002): Sistemas de Información Geográfica, Madrid, 227 pp.