

Biodiversity and Habitats

Code: 104251
ECTS Credits: 6

Degree	Type	Year	Semester
2503710 Geography, Environmental Management and Spatial Planning	OB	3	2

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Teachers

Roser Maneja Zaragoza

Prerequisites

The knowledge learnt in the subjects of Geografia Física are taken for granted, and will not be explained again.

Objectives and Contextualisation

This course introduces students to some concepts of biogeography and ecology and explores the causes, processes, and consequences of global environmental change. The course make special emphasis on the influence that human action has had on the landscape and the consequences that current environmental changes can have on society and the natural environment.

The specific objectives of the course are:

- Identify, describe, explain, classify and determine the main plant species of Catalonia landscapes.
- Analyze and interpret a landscape paying special attention to its natural and social dynamics and the different living beings that compose it.

Competences

- Analyse and understand geographical dynamics (sociodemographics, geo-economics and environmental) on different territorial scales.
- Critically analyse the relationship between society and the region applying the conceptual and theoretical framework of geography.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Work cooperatively in multidisciplinary teams.

Learning Outcomes

1. Describe and interpret changes in landscape.
2. Interpret changes in the landscape through the relationship between nature and society.
3. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
4. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
5. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
6. Work cooperatively in multidisciplinary teams.

Content

Unit 1. Biodiversity and socio-ecological systems

- 1.1. What is biodiversity?
- 1.2. What are socio-ecological systems?

Unit 2. Forest habitats and landscapes

- 2.1. Habitats and landscapes
- 2.2. Forest dynamics

Unit 3. The soil, its covers and forest fires

- 3.1. The soil and his covers

3.2. Soil degradation and forest fires

Unit 4. Water and aquatic ecosystems

- 4.1. Characterization of aquatic ecosystems
- 4.2. Mediterranean basin management and water quality

Unit 5. Impacts of human activity on natural systems

- 5.1. Nature-society historical evolution (environmental geohistory)
- 5.2. Impacts of human activities (invasive species, etc.)

Unit 6. The "new" nature-society relations

- 6.1. Protected Natural Areas
- 6.2. Environment and human health

Unit 7. Field trips

- 7.1. Identification and characterization of mediterranean vegetation (plac
- 7.2. Analysis and interpretation of a socio-ecological landscape (place to

Two field trips. In the event that field trips cannot be taken onsite, they will be adapted to an online format made available through the UAB's virtual tools (original weighting will be maintained).

In this subject, gender perspective will be taken into account in the following aspects:

- Not allowing a sexist use of language in the students' oral and written contributions.
- Writing, in the references, the full names of authors, instead of only the initial.

Methodology

Autonomous Types

Exercises: independent work, compulsory delivery by students following the instructions in the teaching calendar. They will not change regardless of the number of mandatory field trips.

Directed Types

Theory: master classes in the classroom and two mandatory field trips, presentation of classroom practices and field practices. They will be adapted, if necessary, to the number of mandatory field trips.

Supervised Types

A virtual herbarium and different vegetation profiles.

On carrying out each evaluation activity, lecturers will inform students (on Moodle) of the procedures to be followed.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Class practices - case studies	16.67	0.67	5, 4, 3
Field work	16.66	0.67	1, 2, 5, 4, 3, 6
Master class	16.67	0.67	1, 2

Type: Supervised

Virtual herbarium and transect	25	1	1, 2, 4, 3, 6
Type: Autonomous			
Case resolution	60	2.4	1, 2, 5, 4, 3, 6

Assessment

The final grade will be calculated as follows:

Theory Tests (35%)

Test 1: 5%

Test 2: 5%

Final theory exam: 15% (minimum 5 grade to average)

Practical final exam 10% (minimum 5 marks to average)

Classroom practices (35%)

Solve 2 case studies on the wiki

Preparation of Virtual Herbarium in groups (15%)

Identify, describe and photograph plant species during field trips. The Field Trips (15%)

Elaboration of vegetation profiles in groups

The following should be noted:

- 1) Exams and field trips are MANDATORY, as well as 80% of homework
- 2) The minimum grade to average in the final exams is 5.
- 3) Students will obtain a "Not assessed/Not submitted" course grade unless
- 4) VERY IMPORTANT about plagiarism. In the event of a student commi

in assessment activities of the same subject, the student will be given a zero as the final grade for this subject.

5) The undergraduate student has the right to a reassessment of the exams.

Qualifications review procedure:

At the time of each assessment activity students (Moodle) will be informed. In the event that tests or exams cannot be taken onsite, they will be adapted.

The teaching methodology and the evaluation proposed in the guide may undergo some modification subject to the

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class practices - case studies	35%	8	0.32	1, 2, 5, 4, 3, 6

Final exam of theory	15%	1.5	0.06	1, 2, 5, 4, 3, 6
Final practic exam	10%	0.5	0.02	1, 4, 3
Test 1	5%	0.5	0.02	5, 4, 3
Test 2	5%	0.5	0.02	5, 4, 3
Vegetation profiles	15%	2	0.08	1, 2, 6
Virtual herbarium	15%	2	0.08	1, 2, 6

Bibliography

References

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- MARGALEF, Ramon (1991). Teoría de los sistemas ecológicos. Barcelona, Universitat de Barcelona.
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Software

Office and software of SIG available in the classroom of computing services