

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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Teaching groups languages

You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

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

Theoretical contents

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

Practical Contents

Field trips

At the beginning of the course, the teacher will explain the protocol of measures and good practices for field trips.

Field trip 1. UAB Campus. Identification and characterization of Mediterranean vegetation.

Field trip 2. Itinerary for the study of Eurosiberian and Boreo-Alpine vegetation (2 days, overnight stay)

Field trip 3. Preparation for the practical exam (optional)

If the field trips cannot take place in person, their format will be adapted (maintaining their weighting) to the possibilities offered by the UAB's virtual tools.

Laboratory and cabinet practices

- The cartography of the vegetation
- Methods of studying vegetation and the vegetal landscape
- Vegetation maps
- Forest cover maps
- Vegetation profiles
- The making of herbariums

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 regarding

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

At the beginning of the course, the teacher will explain the protocol of measures and good practices for field trips

Supervised Types

A virtual herbarium and different maps and vegetation profiles.

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

This subject/module does not incorporate single 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

Preparation of Virtual Herbarium in groups (15%)

Identify, describe and photograph plant species during field trips. The l

Field Trips (15%)

Elaboration of vegetation profiles and cartography 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) In the event of a student committing any irregularity that may lead to a significant variation in the grade awarded

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

Qualifications review procedure:

On carrying out each evaluation activity, lecturers will inform students (on

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 and cartography	15%	2	0.08	1, 2, 6
Virtual herbarium	15%	2	0.08	1, 2, 6

Bibliography

References

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Software

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

