Biodiversity and Habitats

Code: 104251
ECTS Credits: 6

2025/2026

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

Contact

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Teachers

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Roser Maneja Zaragoza

Teaching groups languages

You can view this information at the end of this document.

Prerequisites

The knowledge acquired in Physical Geography courses is assumed and will not be explained again.

To take this course, students must have a command of Catalan at level B2 or higher.

Objectives and Contextualisation

This course introduces students to key concepts in biogeography and ecology, and explores the causes, processes, and consequences of global environmental change. The course places special emphasis on the influence of human activity on plant landscapes and the potential impacts of current environmental changes on both society and the natural environment.

The specific objectives of the course are:

- To identify, describe, explain, classify, and determine the main plant species found in the landscapes of Catalonia.
- To analyze and interpret a landscape with particular attention to its natural and anthropogenic dynamics, as well as the various living organisms that inhabit it.

Additionally, this course is linked to the subject "Territorial and Environmental Laboratory: Project," meaning that the practical exercises and fieldwork developed here will also be used in that course.

Learning Outcomes

1. CM14 (Competence) Make proposals and actions focused on the management of biodiversity and protected natural areas.
2. KM24 (Knowledge) Interpret the dynamics of a vegetation landscape, taking into account the description and classification of the main plant species in Catalonia.

Content

Theoretical Content

Block 1 - Biodiversity and Conservation Biology

1. Biodiversity: definition, levels, and ecological values.
2. Basic concepts of biogeography: distribution, dispersal, and endemism.
3. Biodiversity patterns and trends: ecoregions, hotspots, and global indicators.
4. Threats to biodiversity: pressure factors and species vulnerability to extinction.
5. Protected natural areas: conservation strategies, territorial planning, and management.

Block 2 - Landscape Analysis

1. Habitats, biomes, and forest landscapes: structure, dynamics, global distribution, and disturbance regimes.
2. Vegetation of the Iberian Peninsula: typology, distribution, and adaptations, with special focus on the plant landscapes of Catalonia.
3. Environmental geohistory: indicators of landscape evolution. Climate dynamics and vegetation history.
4. Inland aquatic ecosystems: characterization and river diagnosis.
5. Soils: formation and ecosystem services.

Practical Content

Field Trips
At the beginning of the course, the teaching staff will explain the protocol for safety and best practices during field trips.

- Field Trip 1: UAB Campus - Characterization of Mediterranean vegetation and analysis of forest dynamics.
- Field Trip 2: Mountain vegetation study along an altitudinal gradient.
- Field Trip 3: Visit to Solsona, in coordination with the course "Territorial and Environmental Laboratory: Project".

If field trips cannot be conducted in person, they will be adapted to virtual formats using UAB's digital tools, maintaining their weight in the course evaluation.

Classroom and Laboratory Practicals

- Methods for studying vegetation and plant landscapes
- Vegetation maps
- Habitat characterization
- Herbarium work
- River diagnosis

Gender Perspective in the Course

- Sexist language will not be permitted in students' oral or written contributions.

- Full names of authors will be used in the bibliography, rather than initials only.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Class practices - case studies	16.5	0.66	CM14, KM24, CM14
Field work	16.5	0.66	KM24, KM24
Master class	14	0.56	CM14, KM24, CM14
Type: Supervised			
Herbarium	25	1	KM24, KM24
Type: Autonomous			
Case resolution	75	3	CM14, KM24, CM14

Autonomous Activities

Independent work linked to classroom practicals. Students must submit the exercises as required, following the instructions and deadlines set in the course calendar. The work is carried out in groups and includes the search for relevant information.

Guided Activities

- Lectures in the classroom
- Presentation of classroom practicals - case studies
- Three mandatory field trips. At the beginning of the course, the teaching staff will explain the protocol for safety and best practices during field trips.

During the field trips, the Faculty's Field Trip Protocol will be applied. Students will have access to specific documentation on safety for activities conducted outside the UAB campus, which they must read and accept.

If necessary, the field trips will be adapted-partially or fully-to virtual teaching using the available tools (Teams, narrated presentations, videos, podcasts, etc.), as was done during the lockdown period.

Supervised Activities

Preparation of a herbarium, with guidance and supervision from the teaching staff.

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class practices - case studies	35%	0	0	CM14, KM24
Herbarium	20%	0	0	KM24
Practical examen - visual	15%	0.5	0.02	KM24
Theory exam 1	15%	1.25	0.05	CM14
Theory exam 2	15%	1.25	0.05	KM24

This course/module does not offer a single-assessment option.

The final grade will be based on the following components:

Theoretical assessment (30%)

- Midterm exam - Block 1: 15%
- Midterm exam - Block 2: 15%

Practical assessment (70%)

- Practical exam - visu: 15%
- Herbarium: 20%
- Classroom practicals - case studies: 35%

Important considerations

1. Mandatory components: Exams and field trips are mandatory, as well as 80% of homework and in-class exercises.

2. Minimum grades: To average with the rest of the assessment components, students must obtain a minimum grade of 4.5 in each of the two theory midterms and in the practical exam (visu).

3. Non-assessable: Students will receive a "non-assessable" grade if they submit less than 30% of the assessment activities.

4. Academic misconduct: If a student commits any irregularity that may significantly affect the grade of an assessment activity, that activity will be graded with a 0, regardless of any disciplinary action. If multiple irregularities occur in the same course, the final grade will be 0.

5. Reassessment: Undergraduate students have the right to reassess the exams.

6. Use of Artificial Intelligence: In this course, the use of Artificial Intelligence technologies is permitted exclusively as a complementary support tool in the learning process. However, these tools cannot replace practical knowledge or direct observation, which are essential in this subject. In any assessable activity, students must clearly identify which parts were generated using AI, specify the tools used, and include a critical reflection on how they influenced the process and final outcome. Lack of transparency in AI usewill be considered academic dishonesty and may result in partial or full penalties on the activity grade, or more serious sanctions in severe cases.

Grade Review Procedure

At the time of each assessment activity, the teaching staff will inform students (via Moodle) of the procedure and date for grade review.

If exams cannot be held in person, their format will be adapted to the virtual tools available at UAB, maintaining their weight in the final grade. Activities and class participation will be conducted through forums, wikis, and/or exercise discussions via Teams, ensuring accessibility for all students.

Bibliography

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Software

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

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	1	Catalan	second semester	morning-mixed
(PCAM) Field practices	11	Catalan	second semester	morning-mixed
(PCAM) Field practices	12	Catalan	second semester	morning-mixed
(TE) Theory	1	Catalan	second semester	morning-mixed