

Laboratory Techniques and Field Work

Code: 104266
ECTS Credits: 6

Degree	Type	Year	Semester
2503710 Geography, Environmental Management and Spatial Planning	OT	4	1

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

Prerequisites

It is highly recommended to have taken and passed most of the compulsory Physical Geography subjects of the degree.

Objectives and Contextualisation

The most important goal of this subject is to have fun learning.

The object of study will be focused on the soils and for this purpose a field trip of 3, or more days, will be made for the study of the same and the collection of samples for analysis in the laboratory.

Competences

- Apply methods and techniques of quantitative, qualitative and field work analysis in the interpretation of territorial and environmental processes.
- Combine distinct techniques and methods of representation and spatial analysis in elaborating materials for transmitting results.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- 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.

Learning Outcomes

1. Combine distinct techniques and methods of representation and spatial analysis in elaborating materials for transmitting results.
2. Interpret the statistical result of data analysis.
3. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
4. 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.

5. Understand the main sources of information and scientific documentation related to regional and environmental processes.

Content

Soils: central elements of the physical environment and non-renewable resource.

Definition of soil and horizons.

The physical and chemical properties of soils.

Methods of analysis.

Soil maps and soil assessment.

Methodology

The methodology of this subject is practical. The field techniques at the field trip and the laboratory techniques in the realization of the protocols will be explained.

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			
Field trip	20	0.8	1, 5, 2, 4, 3
Laboratory work	25	1	1, 5
Theoretical sessions	5	0.2	1, 5, 2, 4, 3
Type: Supervised			
Sample collection preparation	20	0.8	
Type: Autonomous			
Field trip preparation	50	2	

Assessment

The evaluation of this subject will be based on a single document that brings together the knowledge acquired in the field and the protocols carried out in the laboratory.

There is no examination and the recovery is done continuously with the following mechanism: Both the field report and the laboratory protocols may be sent to the teacher before the final delivery, as many times as necessary, for the performance of timely pre-corrections and thus ensure the work is carried out. A place and date will also be set for the review of marks.

Even so, a place and date will be set for the review of their qualification.

Not evaluable implies not attending the field trip or laboratory practices.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Field report	50%	15	0.6	1, 5, 2, 4, 3
Laboratory work 1	25%	7.5	0.3	1, 5, 2, 4, 3
Laboratory work 2	25%	7.5	0.3	1, 5, 2, 4, 3

Bibliography

COBERTERA, E. (1983), *Edafología aplicada*, Madrid, Cátedra.

McRAE, S.G. (1988), *Practical Pedology. Studyng Soils in the Field*, E. Horwood, New York.

PORTA, J, LÓPEZ-ACEVEDO, M & ROQUERO, C. (1994), *Edafología para la agricultura y el medio ambiente*, Madrid.

Software

See "continguts"