

Tool III: Environmental Impact Assessment

Code: 106759
ECTS Credits: 6

2024/2025

Degree	Type	Year
2504604 Environmental Sciences	OB	3

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Teachers

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Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

It is recommended to have taken and passed the basic subjects of the degree and those related to the natural and socio-economic environment.

Objectives and Contextualisation

- To know the environmental assessment procedures and the content of mandatory documents.
- To learn on the legislation governing environmental assessments.
- To learn on how to identify and assess environmental impacts.
- Be able to propose measures to mitigate impacts.
- To recognize the main effects of human activities on the natural and social environment.
- To learn how to assess the social perception of environmental impacts.
- To critically analyze an environmental assessment.

Learning Outcomes

1. CM27 (Competence) Assess factors related to the Sustainable Development Goals when undertaking environmental impact studies.
2. CM28 (Competence) Assess the existence of inequalities based on sex/gender in environmental issues through data analysis.
3. CM29 (Competence) Work independently on the resolution of environmental problems and practical cases that require statistical, cartographic or impact analysis.
4. KM37 (Knowledge) Identify the uses of geographic information systems, impact assessment techniques and communication and dissemination methodologies in the environmental field.
5. SM34 (Skill) Collect, analyse, measure and appropriately represent both qualitative and quantitative data, geographic information and observations of environmental impact.
6. SM35 (Skill) Apply the knowledge acquired to solve problems through the use of geographic information systems and impact assessment techniques.
7. SM36 (Skill) Use techniques and materials related to statistical analysis, the preparation of cartographic material and the drafting of environmental impact reports in the classroom and/or laboratory safely and effectively.
8. SM37 (Skill) Use appropriate scientific language when tackling the challenges in environmental science clearly, explicitly and briefly.

Content

Block I: Concepts, regulations and methods. Environmental impacts on the biotic environment

- Methodology of environmental impact studies
- Evaluation of impacts on organisms and ecosystems
- Case studies

Block II: Environmental impacts on the physical environment and social

- The physical environment in environmental impact studies
- Evaluation of impacts on the geological and hydrological environment
- Impact assessment from a social perspective
- Case studies

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classroom practice and problems	11	0.44	SM34, SM35, SM36, SM37
Field practice	8	0.32	SM34, SM35, SM36
Seminars	11	0.44	CM29, KM37, SM34, SM35
Theory	20	0.8	CM27, CM28, CM29, KM37

Type: Autonomous

Personal study time	66	2.64	CM27, CM28, CM29, KM37, SM37
Practical work in groups	29	1.16	CM27, CM28, CM29, KM37, SM34, SM35, SM36, SM37

The subject combines theory classes, classroom practices, seminars, practical work and a field trip.

(a) Theory classes where the concepts and methods of the discipline are explained. In the theoretical sessions, the complicated and important points of each didactic unit are highlighted and addressed. Subsequently, the student will have to assimilate the concepts explained based on the bibliographic information and with their personal work.

(b) Classroom practice and problems where the explanation of the basis of the main assessment and evaluation methods will be combined with calculations on the computer through case studies.

(c) Seminar classes where some aspect of the environmental assessment of specific practical cases will be explored in depth.

(d) Practical work aimed at knowledge of the processes and documents involved in the environmental assessment.

(e) Field practice where a trip to the field will be made to observe and discuss the impacts produced by human actions.

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

Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Block I Test	35	2	0.08	CM27, CM28, CM29, KM37, SM34, SM35, SM36, SM37
Block II Test	35	2	0.08	CM27, CM28, CM29, KM37, SM34, SM35, SM36, SM37
Work in groups	30	1	0.04	CM27, CM28, CM29, KM37, SM34, SM35, SM36, SM37

Separate evaluations will be carried out for Block I, Block II, and the practical work. Student can approve "per course" (continuous assessment) or in a final "compensatory" test.

The final grade will be calculated according to the following weights, expressed as a percentage:

- Block I test: 35%

- Block II test: 35%

- Practical work in groups: 30%

To pass the subject, it is necessary to obtain a grade of no less than 3.5 out of 10 in each of the three parts and an average grade greater than 4.9 out of 10. The format, procedure, and specific content of the evaluation tests for each part will be detailed by the corresponding teacher throughout the course.

The partial exams corresponding to Block I and Block II that are failed (less than 4.9 out of 10) can be recovered in a compensatory test in January, if the student has been evaluated with a minimum of 2/3 of the total grade of the subject.

Students obtain the grade of "Not Evaluable" when the evaluation activities carried out have a weight of less than 67% in the final grade. Attendance at practical sessions or field trips is mandatory.

The student can request the single assessment. The request for a single assessment implies the waiver of continuous assessment, and involves the evaluation of a final exam as well as the delivery of an individual practical work. To request the single assessment, students must submit a reasoned request to the center within the deadlines set in the UAB's administrative academic calendar.

Bibliography

- Conesa Fernández-Vitora V (2010) Guía Metodológica para la Evaluación del Impacto Ambiental. Mundi-Prensa. 4ª edició. Madrid.
- Domenico, P.A. i F.W. Schwartz (1990). Physical and chemical hydrogeology. Wiley. Fetter, C.W. (1988). Applied hydrogeology. MacMillan.
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- Garméndia, A. (2005) Evaluación de impacto ambiental. Ed Pearson Educación, Madrid, 396p.
- Gómez Orea D (2003) Evaluación de Impacto Ambiental, un instrumento preventivo para la gestión ambiental. 2ª edició ampliada. Editorial Mundi-Prensa. Madrid, Barcelona, México, 749p.
- Keller, E.A and R.H. Blodgett (2007). Riesgos naturales. Procesos de la Tierra como riesgos, desastres y catástrofes. Pearson.
- Mallarach JM (1999) Criteris i mètodes d'avaluació del patrimoni natural. Documents dels Quaderns de medi ambient Núm. 2. Departament de Medi Ambient. Generalitat de Catalunya.
- McCarthy, D (1997) Essentials of soil mechanics and foundations. Prentice-Hall.
- Rau, J.G. and D. C. Wooten (1980). Environmental Impact Analysis Handbook. McGraw-Hill. Riera, P. (2000) Evaluación de impacto ambiental. Barcelona: Rubes Ed.

Software

There is no specific software.

Language list

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	1	Catalan/Spanish	first semester	morning-mixed
(PAUL) Classroom practices	2	Catalan/Spanish	first semester	morning-mixed
(PCAM) Field practices	1	Catalan/Spanish	first semester	morning-mixed
(PCAM) Field practices	2	Catalan/Spanish	first semester	morning-mixed
(SEM) Seminars	1	Catalan/Spanish	first semester	morning-mixed
(SEM) Seminars	2	Catalan/Spanish	first semester	morning-mixed
(TE) Theory	1	Catalan/Spanish	first semester	morning-mixed

PROVISIONAL