Universitat Autònoma de Barcelona

2018/2019

Range of Contemporary Scientific Topics

Code: 102823
ECTS Credits: 3

Degree	Type	Year	Semester
2501915 Environmental Sciences	OT	4	0

Contact

Name: Daniel Campos Moreno
Email: Daniel.Campos@uab.cat

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

No special requirements are expected to attend the subject.

However, since the methodology of the subject makes it necessary to have a general knowledge about the contents and operation of the CCAA Degree, it is considered advisable to have passed at least 120 credits of the Degree to enroll this subject.

Objectives and Contextualisation

Training objectives

- Expand the vision and the interest of the student towards different fields of the Environmental Sciences, beyond the mention and the optional subjects that they are studying.
- Acquire an interdisciplinary vision of the Environmental Sciences.
- To provide the student with keys to the knowledge and basic understanding of frontier topics in the current Environmental Sciences, presented with an informative nature.
- Acquire transversal competences.
- Learn to write a proposal for the dissemination program of Environmental Sciences that complies with formal quality standards.
- Reflect on the nature of the Environmental Sciences.
- Ability to synthesise in a report the relevant scientific information presented at Advanced Environmental Sciences seminars
- Knowledge of the web pages of research and information data available in the field of the Environmental Sciences.

Skills

- Adequately convey information verbally, written and graphic, including the use of new communication and information technologies.
- Analyze and use information critically.
- Collect, analyze and represent data and observations, both qualitative and quantitative, using secure adequate classroom, field and laboratory techniques
- Demonstrate adequate knowledge and use the most relevant environmental tools and concepts of biology, geology, chemistry, physics and chemical engineering.

- Demonstrate adequate knowledge and use the tools and concepts of the most relevant social science environment.
- Demonstrate concern for quality and praxis.
- Demonstrate initiative and adapt to new situations and problems.
- Information from texts written in foreign languages.
- Integrate environmental information in order to formulate and test hypotheses.
- Integrate physical, technological and social aspects that characterize environmental problems.
- Learn and apply in practice the knowledge acquired and to solve problems.
- Quickly apply the knowledge and skills in the various fields involved in environmental issues, providing innovative proposals.
- Teaming developing personal values regarding social skills and teamwork.
- Work autonomously

Learning outcomes

1. Adequately convey information verbally, written and graphic, including the use of new communication and information technologies.
2. Analyze and use information critically.
3. Demonstrate concern for quality and praxis.
4. Demonstrate initiative and adapt to new situations and problems.
5. Demonstrate knowledge of some of the main areas of scientific disciplines environment.
6. Demonstrate knowledge of some of the main areas of the social sciences in the environment.
7. Identify processes sciences, life sciences and social sciences in the surrounding environment and evaluate them properly and originally.
8. Information from texts written in foreign languages.
9. Integrate environmental information with environmental knowledge acquired from the sequence of observation, recognition, synthesis and modeling.
10. Know the main debates of current scientific thinking, especially regarding the environment.
11. Learn and apply in practice the knowledge acquired and to solve problems.
12. Observe, recognize, analyze, measure and properly and safely represent environmental processes.
13. Teaming developing personal values regarding social skills and teamwork.
14. Work autonomously

Content

The final objective of this subject is that students will be able to organize, more or less autonomously, a scientific / informative activity (of subject matter agreed between students and teachers) that is of interest to the students of the Environmental Science Degree.

The subject is structured according to the following parts:

i) 5 theoretical sessions of 1 hour where students will be introduced to the objectives of the subject to get at her end of the course, so it will follow with the formation of the students in search of information and in search of scientific documentation, essentially:

* Search in scientific databases: IsiWeb, Scopus, etc.

* Scientific quality indexes

* Aspects related to the organization of scientific events, based on practical cases

ii) A phase of follow-up (through the study of practical cases and oral presentations of students in class) where the teacher will assess and evaluate the process of organization of the activity (structure of the selected activity, adaptation to the Degree of CCAA, selection of invited experts ...)

Methodology

Classroom activities

- **Theoretical aspects**. 5 sessions of 1 hour in the classroom.
- **Seminars / activity organized by the students.** 3 or more sessions of 1 hour.

Attendance to all these face-to-face sessions is **mandatory.**

Supervised learning activities

- **Preparation of a portfolio.** This will serve as a tracking tool for the subject.
- **Writing a work-summary of the organized activity.**
- **Autonomous learning activities.**

The student will have to consult bibliography (books, scientific journals) and search for information to carry out a structured proposal on seminars for the students of the Environmental Sciences Degree, with the latest news items in which the contribution of teachers and UAB researchers in matters of environmental sciences are relevant, or even looking for experts from out of our University.

Activities

Title	Hours	ECTS	Learning outcomes
Type: Directed			
Classroom practices	5	0.2	2, 10, 5, 6, 4, 3, 7, 9, 12, 8, 13
Seminars	6	0.24	2, 6, 9, 12, 14
Theoretical sessions	5	0.2	10, 7
Type: Supervised			
Follow-up of the organization process	24	0.96	2, 10, 9, 1
Type: Autonomous			
Writing the work / summary of the activity	28	1.12	2, 11, 4, 3, 8, 1, 14, 13

Evaluation

Since classroom sessions focus on all the training activity of the subject, **attendance to classroom sessions is mandatory and will be monitored throughout the course, and will represent 10% of the final grade.**

Non-attendance assistance to these sessions will automatically lead to the "non-evaluable" rating.

The rest of the subject will be evaluated according to the following items:

A) **Organization of the activity / seminar (50%).** In this section the following aspects will be taken into account:

A.1. Continuous follow-up by the tutor (professor) of the organization process (election of the subject, speakers or invited experts, etc.) (40%)

A.2. Final activity undeveloped (10%).

B) **Work-summary of the organization process (40%).** This work will be used so that each student / group justifies in an orderly way:

B.1. The choice of the chosen topic, including an introductory dissemination and the most relevant documentation.

B.2. Adaptation of the subject and activity for the students of the Environmental Sciences Degree (and / or CCAA + Geologia).

B.3. The format chosen for the activity (extension, guest speakers, specific objectives, etc.).

Given the special nature of this subject, based on the preparation of a practical activity throughout the course, it is not possible to establish any type of recovery for those students who do not obtain the approved.

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Attendance to classroom sessions	10	4	0.16	10, 6
Continuous evaluation of the activity / seminar development	50	2	0.08	2, 11, 10, 5, 6, 4, 3, 7, 9, 12, 8, 1, 14, 13
Writing work-summary of the organization process	40	1	0.04	2, 11, 10, 5, 6, 4, 3, 7, 9, 12, 8, 1, 14, 13

Bibliography

Check web of Environmental Sciences