

25250 - Environmental science and sustainability

Syllabus Information

Academic year: 2024/25

Subject: 25250 - Environmental science and sustainability

Faculty / School: 201 - Escuela Politécnica Superior

Degree: 571 - Degree in Environmental Sciences

ECTS: 6.0

Year: 1

Semester: First Four-month period

Subject type: Compulsory

Module:

1. General information

The objectives of this subject are:

- To show the multidisciplinary nature of environmental sciences
- To raise awareness of the main environmental problems and their origin
- To introduce existing sustainability strategies, relating them to the Development Goals Sustainable Development (SDG- Agenda 2030 on Sustainable Development (<https://www.un.org/sustainabledevelopment/es/>)
- Training critical thinking

The objectives of this subject are related to all the SDGs since their knowledge is an implicit part of the subject

2. Learning results

In order to pass this subject, the students shall demonstrate they has acquired the following results:

1. -Value and justify the multidisciplinary nature of Environmental Sciences and the need to go into the different disciplines that support them.
2. -Describe, argue and exemplify the field of activity of Environmental Sciences.
3. -Describe and apply the principles of sustainability in making decisions that affect the environment.
4. -Describe and analyse in a critical and objective way the environmental problems at different spatial and temporal scales

All of these learning results are part of the Sustainable Development Goals in general.

3. Syllabus

BLOCK 1. FOOD, BIODIVERSITY AND THE EARTH SYSTEM

3. SDG 2: Zero hunger
4. SDG 12: Responsible Production and Consumption
5. SDG 13: Climate Action
6. SDG 14: Underwater Life
7. SDG 15: Life of Terrestrial Ecosystems.

BLOCK 2. ENVIRONMENTAL CONTAMINATION

8. General concepts on environmental pollution
9. SDG 6: Clean water and sanitation
10. SDG 7: Affordable and non-polluting energy
11. SDG 9: Industry, innovation and infrastructure
10. SDG 11: Sustainable Cities and Communities
11. SDG 12: Responsible Production and Consumption

4. Academic activities

Master classes: 30 hours

Theoretical sessions in which the contents of the subject will be explained

Seminars: 20 hours

Analysis, resolution, presentation and discussion of cases related to the syllabus

Field trips: 10h

Visit to places, activities, entities or administrations related to monitoring, education, conservation and/or environmental management. Funding subjected to budget availability.

Autonomous student work (86h) and evaluation (4h)

5. Assessment system

The subject can be evaluated through continuous evaluation with the following tests:

Test 1. Individual written theory tests (65% of the final grade)

There will be two tests, one at the end of each block of the subject (block 1, 43%; block 2, 22%). It will include multiple choice questions and theoretical-practical questions (short and essay questions). No documentation of any kind other than that provided in the exam will be allowed for its completion. Minimum grade to average with the rest of the tests: 5 in each test

Test 2. Delivery of practices (35% of the final grade)

If the practical sessions are attended, the evaluation will consist of the delivery of reports generated in the same (block 1, 23%; block 2, 12%). Minimum grade to average with the rest of the tests: 5 in each block

If the evaluation is carried out by means of a global evaluation, the following tests will take place on the date established by the center

Test 1. Individual written test of theory (65% of the final grade) / (block 1, 43%; block 2, 22%)

Test 2. Individual written test of practices (35% of the final grade) / (block 1, 23%; block 2, 12%)

Both tests will include multiple-choice questions and short and developmental questions. The use of any type of documentation other than that provided in the exam will not be allowed and the minimum grade to average between them is 5 for each test. Each block needs a minimum of 5 to pass the subject and average with the rest of tests.

If the final grade is ≥ 5 but any of the evaluation test grades are not, the subject will be failed and the grade on the transcript will be a "4.0 fail". If tests 1 or 2 are passed in the first call, but the subject is failed, if the student wishes, the grades corresponding to these activities will be kept for the second call of the same academic year.

The success rate in the subject for the last three years is 78.05% (Academic year 2020-21), 90.00% (2021-22) and 97.67% (2022-23).

6. Sustainable Development Goals

4 - Quality Education

6 - Clean Water and Sanitation

12 - Responsible Production and Consumption