Academic Year/course: 2023/24

28947 - Sustainable development and the environment

Syllabus Information

Academic year: 2023/24
Subject: 28947 - Sustainable development and the environment
Faculty / School: 201 - Escuela Politécnica Superior
Degree: 583 - Degree in Rural and Agri-Food Engineering
ECTS: 6.0
Year:
Semester: Second semester
Subject type: Optional
Module:

1. General information

To show a general vision of the problems of Sustainable Development integrated in the Environment.

- To teach the variety of dimensions of rural SD: Education for Sustainable Development Protected Areas; Hunting; Management Forestry; Agriculture.

- To provide a solid basis for students to be able to critically analyze in practical cases related to Sustainable Development integrated in the Environment.

- To promote awareness of the need for sustainable development integrated with the environment in the agricultural and rural areas.

- To know the scope in which Sustainable Development integrated in the Environment is inserted in society, as well as the different professional opportunities it offers.

These approaches and objectives are aligned with the Sustainable Development Goals: Ob. 2 (targets 2.4), Ob. 3 (target 3.9), Ob. 12 (targets 12.2, 12.4 and 12.8), Ob. 15 (target 15.1)

2. Learning results

To pass this subject, the student will be able to:

- Describe and understand the concepts, methods, fundamental tools and terminology related to the SDGs.

- Is able to detect and value the diversity of elements that intervene in the configuration of sustainability and the complex relationships that exist between the different fields that make it up.

- Is able to understand the different dimensions that constitute the SDGs.

- Is able to detect, analyze, understand and propose a solution or mitigation of a management problem related to the SDGs.

- Is able to understand, analyze and apply the general contents and essential concepts of the SDGs to the rural world and agronomy.

- Properly search and use bibliographic sources for the development of their work.

- It is capable of creating its own criteria for assessing the SDGs by providing useful approaches.

- Is capable of preparing a scientific technical report that addresses the SDGs issues

- Is able to analyze with critical sense and scientific rigor studies or case studies on the SDGs.

- Is capable of presenting and solving practical cases related to SDGs compliance using different methodologies and disciplines, with the ability to communicate results

3. Syllabus

Block 1

1. General aspects of Sustainable Development integrated in the environment and engineering.

2. Conservation and sustainable use of biodiversity

3. Valuation of environmental assets. Natural capital and ecosystem services.

4. Environmental legislation and management. Protected Areas, Birds and Habitats Directives. Environmental impact assessment.

5. Climate change and agriculture.

6. Ecological restoration.

7. Reading and commenting on articles on sustainable development.

Block 2

8. Rural development programs.

9. Aragon RDP Measures

10. LEADER groups

11. Land consolidation

12. Good agricultural practices

13. Sustainable use of phytosanitary products

14. Areas vulnerable to nitrate contamination

4. Academic activities

Lectures: 20 h

Problems: 20 h

Laboratory: 10 h

Field trips: 5 h

Assessment 5 h

Non-attendance student work: 90 h

5. Assessment system

Block 1

Exam at the end of the block. Written or oral depending on the number of students. 25%

Practical work. 25%

If the previous tests are failed, at the end of the term there is a global test consisting of another exam and/or the delivery of the practical work.

Block 2

Written exam at the end of the term. 25%

Group practice work. 25%

In order to average, all parts must have a score >=5. If one of the two parts is not passed, the final grade for the course will be : 4.5, fail.

The success rates for the subject in the last three years are: 2019/20: 100%; 2020/21: 100%; 2021/22: 100%