Academic Year/course: 2023/24

25257 -

Syllabus Information

Academic year: 2023/24
Subject: 25257 -
Faculty / School: 201 - Escuela Politécnica Superior
Degree: 571 - Degree in Environmental Sciences
ECTS: 6.0
Year: 4
Semester: First Four-month period
Subject type: Compulsory
Module:

1. General information

The general objectives of this subject are to know and know how to apply the standards for the implementation of environmental management systems in any organization, as well as for its auditing.

These goals are aligned with some of the Sustainable Development Goals (SDGs), in particular with SDG 9 (Objectives 9.4) and SDG 12 (Objectives 12.2 and 12.4).

It is recommended to have previously taken the subjects corresponding to the first three years of the degree, especially: Environment and Sustainability, Environmental Management and Legislation, Ecology I and II, Soil Degradation and Contamination, Air Pollution, Water Pollution, Waste Management, Treatment and Reclamation; and it is recommended to simultaneously take the subject Environmental Impact Assessment.

2. Learning results

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

1. -Develop and implement environmental management systems.

2. -Design, develop and execute audit procedures.

3.-Write environmental sustainability reports as a new trend in the environmental accreditation of a company.

4. -Develop the ability for teamwork, critical reasoning and the capacity for analysis and synthesis.

All of these learning results are linked to Sustainable Development Goals 9: Industry, innovation and infrastructure and 12: Responsible production and consumption.

3. Syllabus

BLOCK 1: ENVIRONMENTAL MANAGEMENT SYSTEMS

Topic 1. Definitions.

Topic 2. Introduction to Environmental Management Systems.

Topic 3. ISO 14001:2015 Standard: Purpose and scope of application.

Topic 4. ISO 14001:2015 Standard: Context of the organization.

Topic 5. ISO 14001:2015 Standard: Leadership.

Topic 6. ISO 14001:2015 Standard: Planning

Topic 7. ISO 14001:2015 Standard: Support.

Topic 8. ISO 14001:2015 Standard: Operation.

Topic 9. ISO 14001:2015 Standard: Performance evaluation.

Topic 10. ISO 14001:2015 Standard: Improvement.

Topic 11. EMAS Regulation.

BLOCK 2: ENVIRONMENTAL AUDITS

Topic 1. Introduction to Environmental Audits.

Topic 2. Regulations applicable to the audit process. ISO 19011:2018 Standard.

Topic 3. Auditor profile.

Topic 4. Audit planning and preparation.

Topic 5. Audit process.

Topic 6. Audit report and follow-up.

4. Academic activities

Master classes: 30 hours

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

Practical classes: 30 hours

Writing of a practical work consisting in the planning of an environmental management system in an organization and its subsequent audits.

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

In relation to the SDGs, all the learning activities of the subject allow to achieve the learning results related to them, mainly the practical sessions.

5. Assessment system

The subject will be evaluated by means of a global evaluation with the following activities to be carried out on the dates established by the center:

Test 1. Individual written theory test (60% of the final grade)

It will include multiple-choice and theoretical-practical questions (short and essay questions) and will be divided according to the two blocks of the subject (30% for each block). 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 block.

Test 2. Reports, presentation and defence of practices (40% of the final grade)

It will consist of the delivery, presentation and defence of the group reports developed in practices which will be divided according to the two blocks of the subject (20% each block). Minimum grade to average with the rest of the tests: 5 in each block.

ATTENTION: There is the possibility of taking the evaluation of Test 2, before the date of the global evaluation test, as students will be informed in the presentation of the subject.

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 test 2 is passed in the first call, but the subject is failed, if the student so wishes,

the grade corresponding to this activity will be saved for the second call of the same academic year .

The success rate in the subject for the last three years is 100% (2019-20), 97.14% (2020-21) and 91.30% (2021-22)