

28629 - Integrated Quality, Safety and Environmental Management

Syllabus Information

Academic year: 2023/24

Subject: 28629 - Integrated Quality, Safety and Environmental Management

Faculty / School: 175 - Escuela Universitaria Politécnica de La Almunia

Degree: 422 - Bachelor's Degree in Building Engineering

ECTS: 6.0

Year: 4

Semester: First semester

Subject type: Compulsory

Module:

1. General information

The purpose of this subject is to train future technical architects with basic knowledge in quality, safety and environmental management to ensure that the processes they develop in their professional future are managed in an appropriate manner to ensure their successful completion. For this purpose, documentation of management systems according to ISO 9001, ISO 14001 and ISO 45001 will be created as part of the teaching activities

These approaches and goals are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (<https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement.

8.4 By 2030, progressively improve global resource efficient production and consumption and effort to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, starting with developed countries¹¹. 3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlements planning and management in all countries.

11.6 By 2030, reduce the negative per capita environmental impact of cities, including by paying special attention to air quality and the management of municipal and other wastes.

12.2 Achieving sustainable management and efficient use of natural resources by 2030

12.4 By 2020, to achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with internationally agreed frameworks, and to significantly reduce the release to air, water and soil in order to minimize their adverse effects on human health and the environment

12.5 By 2030, significantly reduce waste generation through prevention activities, reduction, recycling and reuse

12.6 Encourage companies, especially large corporations and transnational corporations, to adopt sustainable practices and incorporate sustainability information into their reporting cycle

2. Learning results

- Plan, design and implement the necessary documentation for quality management on construction sites
- Design safety and environmental management on construction sites
- Choose and use the appropriate quality, safety and environmental management standards for the creation of procedures that establish homogeneous and effective work systems.
- Synthesize the management systems required in the different activities of the building industry into an integrated management system.
- Explain and plan the process of implementation, certification and auditing of management systems.
- Ability to manage quality control on construction sites, drafting, application, implementation and updating of management systems documentation.

3. Syllabus

Unit 1. **Building Quality and Quality Management**

Introduction, building quality and quality management

Unit 2. **Management of occupational risk prevention in construction works.**

Documentation of on-site prevention management

Unit 3. **Building Environment**

Introduction to environmental management and environmental management with ISO 14001

Unit 4. **Process of implementing and certifying management systems in a company**

Implementation and certification process. Integrated Management ISO 9001-ISO 14001-ISO 45001:2018

4. Academic activities

- Lectures: presentation of the course content, duration 20 hours
- Problems: examples of the creation of management system documentation in class, duration 40 hours Study and personal work: completion of assessable work and preparation of test, duration 84 hours Assessment tests. 6 hours

5. Assessment system

Continuous Assessment

-Exercises and proposed works

- Subject quality (1.25 points) and safety (1.25 points), minimum grade 1 point to be able to add the rest of the grades the subject
- Subject environment (1.25 points), minimum grade 0.5 point to be able to add the rest of the grades of the subject

-Written evaluative tests

- Quality and safety. Score 2.5 points, minimum grade 1 point to be able to add the rest of the grades of the subject
- Environment and integrated management. Score 3.75 points, minimum grade 1.5 point to be able to add the rest of the grades of the subject

Assessment in Call

There will be two theoretical and practical tests that will have a score of 100% of the total grade of the subject, the tests will include questions related both to the theoretical part of the subject and to works similar to those carried out during the semester

- Quality and safety issues. Score 5 points, minimum grade 2 points to be able to add the rest of the grades of the subject
- Environment and integrated management. Score 5 points, minimum grade 2 points to be able to add the rest of grades of the subject