

28908 - Graphic expression

Syllabus Information

Academic year: 2023/24

Subject: 28908 - Graphic expression

Faculty / School: 201 - Escuela Politécnica Superior

Degree: 583 - Degree in Rural and Agri-Food Engineering

ECTS: 6.0

Year: 1

Semester: Second semester

Subject type: Basic Education

Module:

1. General information

The student must acquire the necessary skills in the use of Technical Drawing tools, to capture in a plan, paper or computer format, an engineering work in a way that he/she appreciates the versatility of Technical Drawing as an interdisciplinary language to transmit information.

These approaches and objectives are aligned with the Sustainable Development Goals (SDGs) of the 2030 Agenda of United Nations (<https://www.un.org/sustainabledevelopment/es/>), specifically, the learning activities planned in this subject will contribute to the achievement of targets 4.3, 4.4 and 4.7 of Goal 4, target 8.2 of Goal 8, target 9.4 of Goal 9 and targets 12.2 and 12.8 of Goal 12.

2. Learning results

To establish different geometrical relationships between basic elements (point, line, plane, polyhedron) in a three-dimensional space: belonging, parallelism, straightness, intersection, etc.

To represent in a two-dimensional format a three-dimensional body.

-To make and understand a technical drawing in which a real mechanical design is shown, with the corresponding required precise indications.

To represent in a two-dimensional format works and topographic constructions.

-To handle tools and computer tools for technical drawing.

-To communicate through the use of standardization with other professionals regardless of their background and/or language.

-To relate the variability inherent in any manufacturing process to design accuracy and measurement uncertainty.

-To search for diverse sources of information related to Graphic Expression.

3. Syllabus

-Standardization of industrial drawing.

-Use of computer tools in Graphic Expression.

-Metric and projective geometry.

-Descriptive geometry: Dihedral system.

-Descriptive geometry: Bounded system. Applications of the dimensioned system to topography.

4. Academic activities

-Lectures, explanation of the subject syllabus: 5 hours

-Problems and cases, resolution of practical cases presented by the teacher: 31 hours

-Laboratory practices, computer tools: 24 hours

-Work related to the content of the subject: 24 hours

-Study and personal work: 60 hours

-Evaluation tests: 6 hours

5. Assessment system

The subject can be passed in two non-exclusive ways:

-Performing throughout the course a series of controls of the specified contents.

-Taking a global test (two official calls).

The grading of the exercises will consider the following aspects: accuracy in the solution, choice of appropriate constructions, delineation and cleanliness.

The subject grade will be determined as follows (all contents are graded from 0 to 10 points): -Normalization of industrial drawing: 20%.

-Use of computer tools in Graphic Expression: 20%

-Metric and projective geometry: 10%

-Descriptive geometry, Dihedral system: 20%

-Descriptive geometry, dimensioned system. Applications of the dimensioned system to topography: 20%

-Search for information sources (bibliographic references): 10%

The success rate of the subject in recent years is: 2019/20: 100.00%; 2020/21: 89.13%; 2021/22: 100.00