

28706 - Graphic expression II

Syllabus Information

Academic year: 2023/24

Subject: 28706 - Graphic expression II

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

Degree: 423 - Bachelor's Degree in Civil Engineering

ECTS: 6.0

Year: 1

Semester: Second semester

Subject type: Basic Education

Module:

1. General information

In this part of Graphic Expression, the different systems of representation of geometric elements are studied in depth, such as axonometry, dimensioned system, dihedral system, 3D modeling, and others that may arise during the explanations.

Descriptive Geometry has a scientific character given by its geometric basis (metric, projective, etc.). Its theoretical body has mathematical support used as a means to a communicative end. as an instrument, it will allow to establish the pedagogy adequate to the teaching of all architecture, whose conceptual foundation lies in the need for foresight spatial and formal geometric concreteness. As such it is a discipline of graphic study, a means to incorporate in the drawing the rationalization of space provided by geometry and that allows the representation and graphic analysis with scientific rigor . The plans on which it is based are as follows:

- To teach the different projection systems useful for graphic representation, using the most appropriate at all times to solve and communicate in a rigorous, simple and fluent way.
- Exercise spatial reading, the ability to perceive three-dimensional space from flat registers, stimulating spatial apprehension or "seeing space".
- To provide the necessary knowledge of geometry for the representation of constructive forms.

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

SDG 4. Ensure inclusive, equitable and quality education and promote lifelong learning opportunities for all

SDG 5. Achieving gender equality and empowering all women and girls

2. Learning results

Analyze and know the spatial geometry of bodies.

Apply the spatial representation systems: axonometric, dihedral and dimensioned system.

Know the fundamentals of applied space geometry.

Interpret and elaborate solutions in a three-dimensional space.

Getting started in CAD.

3D modeling and design

3. Syllabus

1. Axonometry

1. Isometric

2. Cavalry

3. Military

2. Dihedral system

1. Covers

2. Coordinates

3. Bounded system

1. Point, line, plane

2. Intersections
3. Parallelism and perpendicularity
4. Distances
5. Changes of plane
6. Downgrades
7. Figures
4. 3D CAD

4. Academic activities

- Theoretical and expository classes
- Classroom practice/seminars/workshops
- Computer practices.
- Workshop-type autonomous work
- Group and individual tutoring
- Tutorials : may be face-to-face or virtual.

5. Assessment system

ASSESSMENT BY TERM

Practical exercise of an Axonometric 10%

Theoretical-practical evaluation test 30% bounded

Theoretical-practical evaluation test Dihedral 30%

Exercises and 3D practices 30%

Each evaluable milestone must have a minimum score of 4 out of 10 points. In order to pass the subject, it will be necessary to have a weighted average equal to or higher than 5 out of 10 points.

FINAL ASSESSMENT

100% Evaluation Test