

28701 - Graphic expression I

Syllabus Information

Academic year: 2023/24

Subject: 28701 - Graphic expression I

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

Degree: 423 - Bachelor's Degree in Civil Engineering

ECTS: 6.0

Year: 1

Semester: First semester

Subject type: Basic Education

Module:

1. General information

The initial objective is to learn the most common and used techniques and ways of expression. But in addition to knowing to express oneself through drawing, it is essential and equally important to learn to observe what we are going to have to represent and then capture on paper. Before drawing or projecting something we have to understand those elements that we will have to draw afterwards.

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

Apply the systems of representation: dihedral system

Develop sketches, proportionality, language, and graphic representation techniques of the elements and construction processes.

Demonstrate initial knowledge of 2D CAD

Interpret and prepare the graphic documentation required for a basic civil engineering project.

Perform data collection, survey of plans and geometric control of work units.

Obtain plans for building and construction projects.

To know the basics of drawing applied to construction

3. Syllabus

1. Graphic Expression Techniques

1. Basic freehand drawing techniques.
2. Presentation, margins, contents of a box
3. Concept of ground plan, elevation, section, their interrelation, dimensioning
4. Sketch
5. Scaling
 1. Plant
 2. Elevation
 3. Section
 4. Scales
 5. Line value
2. 2D CAD
 1. Presentation of the program, interface, files, saving, options...
 2. Entering commands, commands, coordinates
 3. Drawing tools
 4. Modification tools
 5. Layers

6. Object insertion options
7. Configuration of presentations

4. Academic activities

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

5. Assessment system

COURSE ASSESSMENT

Sketching 30%

Development of freehand drawing exercises in a correct way following the principles of technical drawing **Scaling 40%**

Development of the models according to the usual scale according to the project to be developed

Project 2D 30%

Development of a project in 2D CAD.

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% Assessment Test