28608 - Descriptive geometry

Información del Plan Docente

Academic Year	2017/18
Faculty / School	175 - Escuela Universitaria Politécnica de La Almunia
Degree	422 - Bachelor's Degree in Building Engineering
ECTS	6.0
Year	1
Semester	Second semester
Subject Type	Basic Education
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The learning process that is designed for this subject is based on the following: The teaching methodology is based on a strong interaction teacher / student. This interaction is materialized by a division of labor / responsibilities between students and teachers. Classroom activities: Theoretical classes: theoretical concepts of the subject will be explained and practical examples will be developed. Tutored practical classes of problems: Students will develop examples and conduct problems or case studies concerning the theoretical concepts studied. tutored autonomous activities: These activities will be tutored by teachers of the subject. The student will be able to perform these activities in the center, under the supervision of a professor of the branch / department. Reinforcement activities: Through a virtual education portal

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(Moodle) various activities that reinforce the basic contents of the subject be addressed. These activities will be personalized and controlled its realization through it.

5.2.Learning tasks

The program that the student is offered to help you achieve the expected results includes the following activities ... It involves the active participation of students, so as to achieve the learning outcomes will be developed, non redound to the above, the following activities: Lectures: theoretical activities and / or practices taught so fundamentally exhibition by the teacher. Classroom practices / seminars / workshops: Activities theoretical discussion or preferably practices carried out in the classroom and requiring high student participation. Computer practices: Practical activities in the computer rooms. Group tutorials: Scheduled tracking learning activities in which the teacher meets with a group of students to guide their work autonomous learning and targeted protection of jobs or requiring a very high degree of advice from the teacher. Individual tutorials: may be actual or virtual. The subject consists of 6 ECTS credits, which represents 150 hours of work the student / a in the subject during the semester, ie 10 hours per week for 15 weeks of lessons. A summary of the indicative temporal distribution of a school week can be seen in the following table. These values are obtained from the record of the subject of Memory Verification degree, taking into account the degree of experimentalism considered for this subject it is high

5.3.Syllabus

1 Cylindrical projections. orthogonal systems. Concept and origin of the dihedral system. Concept plan and elevation in architecture. Concept and origin of the orthogonal axonometric system. Point, straight and flat on both systems. Conditions of parallelism and perpendicularity. Applications and exercises. 2 cylindrical projections. graphic procedures. Concept of dihedral plane change. Drawdowns in dihedral system, different methods. Abatement triedro one side of the frame. Abatement any plane Concepts of distances and angles. True magnitudes. Distance determination. True magnitudes. Angles. Applications and exercises. 3 Intersection of planes. Intersection of planes in orthogonal systems. Applications and exercises. 4 Representation of flat shapes. Representation flat shapes in true magnitude. reverse process. The circumference orthogonal projection. The circumference oblique projection. Drawing a circle on any plane. Applications and exercises. 5 polyhedra. Concept polyhedron. Hollow and solid or platonic regular polyhedra. Brief notes on their meaning and generation. Hexahedron or cube. Geometry and special sections. Relationship between orthogonal axonometric and dihedral system. Obtaining the cube from projections of a trirectangular triedro. Tetrahedron. Geometry and special sections. Applications and exercises. 6 Sphere. Sphere: generation, apparent contour and position of a point in cylindrical projection. Intersection with a straight and flat sections. Applications and exercises. 2 Practical development. For correct understanding and visualization of the concepts taught in the lectures or lectures, a comprehensive monitoring of pupils and students is necessary. It is for this reason that the course is designed with a very strong practical component, developing a weekly practical classes, tutored by teachers, with a high of each of the students, thus being able to respond and answer questions personal tracking.
Development 3D CAD techniques

5.4.Course planning and calendar

5.5.Bibliography and recommended resources

- Izquierdo Asensi, Fernando. Geometría descriptiva / Fernando Izquierdo Asensi . - 24ª ed. totalmente rev. Madrid : [El autor], D.L. 2000|f(CLM Eduardo Marconi)
- Izquierdo Asensi, Fernando. Ejercicios de geometría descriptiva / Fernando Izquierdo Asensi. - 15a ed. corregida Madrid : s.n., DL 2005