30702 - Architectural graphic expression 1

Información del Plan Docente

Academic Year	2018/19
Subject	30702 - Architectural graphic expression 1
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	470 - Bachelor's Degree in Architecture Studies
ECTS	6.0
Year	1
Semester	First semester
Subject Type	Basic Education
Module	

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

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

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The program is developed through lectures, supplemented with targeted practice groups work.

4.2.Learning tasks

The program offered to the student to help achieve the expected results includes the following activities:

- Theoretical activities.

- Practices directed, implemented in the classroom.

- Suggested practices for the student

4.3.Syllabus

Part 0. Introduction: Systems of representation.

Part 1. Metric and projective geometry:

1.1. Metric geometry: segments and loci operations.

1.2 projective geometry: is particular homographies, involution, homology, affinity, and investment.

Part 2. System of representation dihedral:

2.1. Point, line and plane. Intersections. Parallelism and perpendicularity.

2.2 Leeways, twists and turns of plane.

2.3 Angles and distances.

2.4 Polyhedra.

2.5 Pyramid, cone, Prism, cylinder, and sphere.

2.6 Intersections.

2.7 Shadows.

2.8 Quadrics and composite surfaces.

Part 3. Dimensional representation system:

3.1. Topography, hipsometria and cartography.

3.2. Point, line and plane. Intersections and depletion. Covers.

3.3 Lines, surfaces and land.

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4.4.Course planning and calendar

- The lectures and the weekly practice sessions are given according to the established schedule, published previously to the start date of the course on the EINA website.

- The calendar of sessions is specified in a pdf that is provided to students on the first day of the course.

- The results of the practices must be submitted at the end of the corresponding session.

- An intermediate test will be carried out in the middle of the semester in order to evaluate the knowledge and skills acquired by the student until that moment. The dates and place of the intermediate test will be announced in the master classes.

4.5.Bibliography and recommended resources

The specific resources of the subject will be arranged in digital format in the platform Moodle with access to the students enrolled.
For guidance purposes only, some titles related to the contents of the subject are available in the library:

Alonso Arroyo, J. A. (1998). Ejercicios de Geometría Descriptiva en Sistema Diédrico. Ed. Autor-Editor. ISBN 978-84-605624-3-6.

Domenech Romá, J. (2000). Fundamentos del Sistema Diédrico. Ed. Llorens. ISBN 978-84-858-7811-6.

Domenech Romá, J. (2003). Poliedros regulares. Alicante: Ed. Club Universitario. ISBN 978-84-845-4266-7.

Izquierdo Asensi, F. (2008). Geometría Descriptiva I (Sistemas y perspectivas). Madrid: Ed. Dossat. ISBN 978-84-933668-7-2.

Izquierdo Asensi, F. (2001). Ejercicios de Geometría Descriptiva I (Sistema Diédrico). Madrid: Ed. Izquierdo Ruiz de la Peña, Francisco Javier. ISBN 978-84-9221-096-1.

Izquierdo Asensi, F. (1994) Ejercicios de Geometría Descriptiva II (Sistemas Acotado y Axonométrico). Madrid: Ed. Paraninfo. ISBN 978-84-237-0800-4.

Sánchez Gallego, J. A. (1997). Geometría Descriptiva. Sistemas de Proyección Cilíndrica. Barcelona: Ed. UPC. ISBN 978-84- 830-1221-5.

Rodríguez de Abajo, F. J. (2007). Geometría Descriptiva. Tomo I. Sistema Diédrico. San Sebastián: Ed. Donostiarra. ISBN: 978-84-706335-3-9.

Rodríguez de Abajo, F. J. (1993). Geometría Descriptiva. Tomo II. Sistema de Planos Acotados. San Sebastián: Ed. Donostiarra. ISBN: 978-84-7063-182-9.

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Santisteban, A. (1993). Sistema Diédrico: 200 problemas tipo (comentados y resueltos). Ed. Capitel. ISBN 978-84-748706-0-2.

Suárez González, J.; García Cuervo, D.; Gancedo Lamadrid, E. (2008). Ejercicios de Sistema Diédrico. Oviedo: Ed. Universidad de Oviedo. ISBN 978-84-8317-645-0.

Taibó Fernández, A. (1983). Geometría Descriptiva y sus aplicaciones. Tomo I. Albacete: Ed. Tebar-Flores. ISBN 978-84-7360-041-X.

Taibó Fernández, A. (1983). Geometría Descriptiva y sus aplicaciones. Tomo II. Albacete: Ed. Tebar-Flores. ISBN 978-84-7360-042-8.

Zorita Carrero, I. (2003). Geometría Descriptiva. Sistema Diédrico. Sistema Acotado (Manuale S UEX nº 34). Ed. Universidad de Extremadura. ISBN 978-84-772357-8-1.

Materials

Pens or pencils of different hardness or thickness of mine, from tougher mine as 2 H soft 2B and minimum diameter of 2 mm.

Paper: for steps A3, Canson pen, roughness average 130 gr.

Compass. square, small straight edges.

Bevel, small straight edges.

Meter, scale ruler