

## 30702 - Architectural graphic expression 1

### Información del Plan Docente

<b>Academic Year</b>	2016/17
<b>Academic center</b>	110 - Escuela de Ingeniería y Arquitectura
<b>Degree</b>	470 - Bachelor's Degree in Architecture Studies
<b>ECTS</b>	6.0
<b>Course</b>	1
<b>Period</b>	First semester
<b>Subject Type</b>	Basic Education
<b>Module</b>	---

### **1.Basic info**

#### **1.1.Recommendations to take this course**

#### **1.2.Activities and key dates for the course**

### **2.Initiation**

#### **2.1.Learning outcomes that define the subject**

#### **2.2.Introduction**

### **3.Context and competences**

#### **3.1.Goals**

#### **3.2.Context and meaning of the subject in the degree**

#### **3.3.Competences**

#### **3.4.Importance of learning outcomes**

### **4.Evaluation**

### **5.Activities and resources**

#### **5.1.General methodological presentation**

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

#### **5.2.Learning activities**

Theoretical activities.

Practices directed, implemented in the classroom.

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Suggested practices for the student

### 5.3.Program

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. Dimensional representation system:

2.1. Topography, hipsometria and cartography.

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

2.3 Lines, surfaces and land.

Part 3. System of representation dihedral:

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

3.2 Leeways, twists and turns of plane.

3.3 Angles and distances.

3.4 Polyhedra.

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

3.6 Intersections.

3.7 Shadows.

3.8 Quadrics and composite surfaces.

### 5.4.Planning and scheduling

1st semester calendar Part

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1 &deg; week 20 sep - 27 sep 0 - 1.1

2 &deg; week 1 oct - 4 oct 1.2

3 &deg; week 8 oct - 11 oct 2.1

4 &deg; week 15 oct - 18 oct 2.2

5 &deg; week 22 oct - 25 oct 2.3

6 &deg; week 29 oct - 5 nov 3.1

7 &deg; week 8 nov - 12 nov 3.2

8 &deg; week 15 nov - 19 nov 3.3

9 &deg; week 22 nov - 26 nov 3.4

10 &deg; week 29 nov-3dic 3.5

11 &deg; week 10dic-13dic 3.5

12 &deg; week 17dic-20dic 3.6

13 &deg; week 7ene-10ene 3.7

14 &deg; week 14ene-17ene 3.8

15 &deg; week Exams

### 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.

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Bevel, small straight edges.

Meter, scale ruler

### 5.5. Bibliography and recommended resources

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.

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

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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.

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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.

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