

SUBJECT TEACHING GUIDE

G410 - Graphic Representation Techniques

First Degree in Electrical Engineering

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	First Degree in Electrical Engineering			Type and Year	Core. Year 1
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Subject Area: Graphical Expression Basic Training Module				
Course unit title and code	G410 - Graphic Representation Techniques				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Knowledge Field					
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERIA GEOGRAFICA Y TECNICAS DE EXPRESION GRAFICA				
Name of lecturer	JOSE ENRIQUE CERON HOYOS				
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Office	E.T.S. de Ingenieros Industriales y de Telecomunicación. Planta: - 2. DESPACHO (S2005)				
Other lecturers	MARIA ESTHER VALLEJO LOBETE RAQUEL ARMESTO ALONSO JOAQUIN DIEZ GUTIERREZ				

4. OBJECTIVES	
Represent parts and elements in a graphical document, using descriptive geometry, graphical projection and technical drawing standards.	
Expose by a graphical, oral and written way ideas of design and interpretation of engineering drawings.	

6. SUBJECT PROGRAM	
CONTENTS	
1	Metric and descriptive geometry. Isometric and Cavalier projection.
2	Metric and descriptive geometry. Projections of curves, surfaces and solids.
3	Technical and engineering drawings. CAD Systems.
4	Metric and descriptive geometry. Orthographic Projection. Topographic representation.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Classroom works and projects.	Work	No	Yes	10,00
22,50 % Orthographic Projection (descriptive geometry)	Written exam	No	Yes	22,50
22,50 % Topographical Representation	Written exam	No	Yes	22,50
45 % Technical drawing	Written exam	No	Yes	45,00
TOTAL				100,00
Observations				
Students who do not pass the continuous assessment (average of 6 in the partial tests), may make the final test, similar to the three subtests, which is completed with the qualification of class work and presentation (10%), and tests partial (30%).				
Observations for part-time students				
Part-time students have same evaluation criteria that full-time students.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
OCW http://ocw.unican.es/enseanzas-tecnicas/tecnicas-de-representacion-grafica-g420
Sist. de representación: GEOMETRÍA DESCRIPTIVA. F. Izquierdo Asensi GEOMETRÍA DESCRIPTIVA. (Tomo 1 - 2) F.J. Rodriguez de Abajo. EJERCICIOS DE ... J.I.Alvaro EXPRESIÓN GRÁFICA Y DAO. EJERCICIOS. F. Fadón
Dibujo técnico: Dibujo Técnico. Ediciones BACHMANN – FORBERG NORMALIZACIÓN DEL DIBUJO INDUSTRIAL. R. Villar del Fresno, R. García, J.L. Caro. MANUAL DE NORMAS UNE SOBRE DIBUJO. Ed. AENOR DIBUJO TÉCNICO. R. de Abajo y Alvarez. Ed. Donostiarra Manual of Engineering Drawing. Colin H Simmons. Dennis E Maguire. Elsevier 2004
D.A.O. GRÁFICAS POR COMPUTADORA. Hearn y Baker. http://personales.unican.es/saizl

