SUBJECT TEACHING GUIDE

G709 - Graphic Engineering

Degree in Industrial Technologies Engineering

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Degree in Industrial Technologies Engineering			Type and Year	Compulsory. Year 2
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Subject Area: Graphic Engineering Module: Selection of Specific Technologies				
Course unit title and code	G709 - Graphic Engineering				
Number of ECTS credits allocated	6	Term		Semester based (2)	
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	FERNANDO FADON SALAZAR
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Office	E.T.S. de Ingenieros Industriales y de Telecomunicación. Planta: - 2. DESPACHO (S2004)
Other lecturers	JOSE ANDRES DIAZ SEVERIANO JOSE ENRIQUE CERON HOYOS JOAQUIN DIEZ GUTIERREZ MARIO RIOZ CRESPO

3.1 LEARNING OUTCOMES
- Knowledge of technological aspects, functionality, mechanical assemblies and components, as well as the shape and design of them.
- Analyze and apply the appropriate industry standards. Representing of mechanical assemblies and elements in detail and clear. Understand the symbols of representations of different facilities .

4. OBJECTIVES

-Application of technological aspects, functionality, shape and design of the mechanical assemblies and elements.
Develop analytical skills required in the application of Standards technological and industrial character.
Analyze and apply the relevant industry standards, in order to achieve a representation of the sets and mechanical elements, detailed and clear in the planes, which are one of the essential documents of a project.
-Application and representation of symbols and specific aspects of facilities dedicated to different industrial sectors , such as electrical, mechanical, chemical or electronic.

6. COURSE ORGANIZATION

CONTENTS	
1	Assembly drawings and Exploded view. Tolerances.
2	Fixed and removable joints. Welding, rivets, threads.
3	CAD/CAM/CAE systems.
4	Representation of industrial plants: chemical, electrical, hydraulic, pneumatic
5	Fundamentals of industrial design.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Two partial tests (75%)	Written exam	No	Yes	75,00
Projects: CAD and paper drawings.	Work	No	Yes	25,00
TOTAL				100,00

Observations

In continuous evaluation, it is necessary to get 6 as average in partial tests marks to pass the course.
To recover course works, they must be presented before the final test.

Observations for part-time students

Follows the same dynamics as presential students

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

https://ocw.unican.es/course/view.php?id=18
OCW http://ocw.unican.es/ensenanzas-tecnicas/ingenieria-grafica
OCW http://ocw.unican.es/ensenanzas-tecnicas/cad-3d
OCW http://ocw.unican.es/ensenanzas-tecnicas/diseno-asistido-por-ordenador
Dibujo Técnico. Ediciones BACHMANN – FORBERG
Ingeniería gráfica y diseño. Jesús Félez Mindán M.ª Luisa Martínez Muneta Ed. Síntesis
Manual of Engineering Drawing. Colin H Simmons, Dennis E Maguire. Ed Elsevier
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
F.FADON, J.E.CERÓN. Ingeniería Gráfica.
J.SANCHEZ CARRO. Metrología.
D.A.O.
GRÁFICAS POR COMPUTADORA. Hearn y Baker.