SUBJECT TEACHING GUIDE

G793 - Computer-Aided Design in Chemical Engineering

Degree in Chemical Engineering
First Degree in Chemical Engineering

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	Degree in Chemical Engineering First Degree in Chemical Engineering			Type and Year	Optional. Year 4 Optional. Year 4
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Subject Area: Option A: Fundamental Chemical Engineering Optional Module				
Course unit title and code	G793 - Computer-Aided Design in Chemical 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	JOSE ENRIQUE CERON HOYOS
E-mail	jose.ceron@unican.es
Office	E.T.S. de Ingenieros Industriales y de Telecomunicación. Planta: - 2. DESPACHO (S2005)
Other lecturers	MARIO RIOZ CRESPO

3.1 LEARNING OUTCOMES

- Designing and obtaining graphic documentation required by 3D modeling, applied to the design of equipment and facilities related to chemical engineering, such as reactors, piping, etc.

4. OBJECTIVES

Graphically designing facilities and equipment related to Ind. Chemistry

Getting drawings and graphics of equipment and systems

Presentation and defense of the work performed.

6. SUBJECT PROGRAM

CONTENTS	
1	CAD / CAM / CAE systems. Specialized CAD applications. Initiation into Autodesk Inventor
2	Representation of chemical facilities: exchangers, piping, boilers, reactors, etc. 3D modeling in Autodesk Inventor. Planning and development of work.
3	PLM (Product Lifecycle Management) Development work on chemical facilities: exchangers, piping, boilers, reactors, etc. Presentation and defense of work.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Personal works	Laboratory evaluation	No	Yes	30,00
Works	Work	No	Yes	70,00
TOTAL				100,00

Observations

On line evaluation will be applied to these same works, practical laboratory exercises and written tests, in case it would be impossible to carry out the on site evaluation because of a new health alert by COVID-19.

Observations for part-time students

Follows the same dynamics as presential students

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Diseño mecánico con Autodesk Inventor paso a paso. Carolina Senabre Blanes Editor Editorial Club Universitario, 2010

Mecánica de fluidos Autor Robert L. Mott Traducido por Javier Enríquez Brito Editor Pearson Educación, 2006