

## SUBJECT TEACHING GUIDE

### G798 - Environmental Management Methods

#### 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 B: Industrial Environmental Management Optional Module				
Course unit title and code	G798 - Environmental Management Methods				
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. DE QUIMICA E INGENIERIA DE PROCESOS Y RECURSOS.				
Name of lecturer	ANA MARIA ANDRES PAYAN				
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Office	E.T.S. de Ingenieros Industriales y de Telecomunicación. Planta: - 3. DESPACHO (S3012)				
Other lecturers	TAMARA LLANO ASTUY				

### 3.1 LEARNING OUTCOMES

- The student must be able to: Implement an Environmental Management System in a company; Identify the environmental aspects of an enterprise; Develop the EMS documentation; Planning an audit of the EMS.

### 4. OBJECTIVES

Master the most modern techniques and tools in the area of Environmental Management, as well as train the student to implement and develop an Environmental Management System in a company that promotes the transition to a Circular Economy model.

6. SUBJECT PROGRAM	
CONTENTS	
1	BLOCK 1: CIRCULAR ECONOMY STRATEGY IN COMPANY TOPIC 1. SUSTAINABLE DEVELOPMENT GOALS AND CIRCULAR ECONOMY; SUBJECT 2. CHANGE OF MODEL FROM LINEAR TO CIRCULAR.
2	BLOCK 2: ENVIRONMENTAL MANAGEMENT TOOLS TOPIC 3. LIFE CYCLE ANALYSIS; TOPIC 4. ECO-DESIGN; TOPIC 5. PRODUCT ENVIRONMENTAL STATEMENT; ITEM 6. MULTI-CRITERIA ANALYSIS;
3	SECTION 3: ENVIRONMENTAL MANAGEMENT SYSTEMS IN COMPANY ITEM 7. THE ISO 14001 and EMAS-REGULATION INTRODUCTION AND OBJECTIVES; ITEM 8. IMPLEMENTATION OF A ENVIRONMENTAL MANAGEMENT SYSTEM (EMS); ITEM 9. INITIAL ENVIRONMENTAL ASSESSMENT; ITEM 10. REQUIREMENTS OF A EMS- ISO14001; ITEM 11. REQUIREMENTS OF AN EMS-EMAS REGULATION
4	SECTION 4: ENVIRONMENTAL MANAGEMENT IN COMPANY. ITEM 12. AUDIT OF EMS; ITEM 13. ENVIRONMENTAL PERFORMANCE EVALUATION; ITEM 14. COMMUNICATION ENVIRONMENTAL. GUIDELINES AND EXAMPLES

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Practical cases Date of completion: Throughout the course Recovery conditions: all the evaluations of each thematic block will be recoverable	Work	No	Yes	65,00
Written exam Date of completion: at the end of the teaching of Block II Recovery conditions: In ordinary/extraordinary call	Written exam	No	Yes	35,00
TOTAL				100,00
Observations				
Continuous assessment carry the obligatiry student attendance at classes.				
Observations for part-time students				
The final evaluation for part-time students will assume a percentage weight of 60% in the final assessment of the subject. And the valuation of four individual works associated to each one of the blocks, assigned along the course, will suppose the remaining 40% of the final evaluation.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
-Claver, E., Molina, J.F., Tarí, J.J. Gestión de la Calidad y Gestión Medioambiental, Ed. Pirámide (3ª Ed), Madrid, 2011. - Prieto, Mª José. Sistemas de Gestión Ambiental (3ª Ed), AENOR ediciones, Madrid, 2011. - Gestión Ambiental: Manual de Normas UNE (3ª Ed), AENOR ediciones, Madrid, 2011. - Granero, J. Como implantar un Sistema de Gestión Ambiental según la norma ISO 142001 (3ªEd), Fund. Confemetal, 2011.

