SUBJECT TEACHING GUIDE

1123 - Environmental Management

Master's Degree in mining engineering
Master's Degree in mining engineering

Academic year 2025-2026

1. IDENTIFYING DATA					
Degree	Master's Degree in mining engineering Master's Degree in mining engineering			Type and Year	Compulsory. Year 1 Compulsory. Year 1
Faculty	School of Mines and Energy Engineering				
Discipline	THE ENVIRONMENT				
Course unit title and code	1123 - Environmental Management				
Number of ECTS credits allocated	4,5	Term		Semester based (2)	
Knowledge Field	Architecture, construction, building and urban planning, civil engineering Architecture, construction, building and urban planning, civil engineering				
Web	https://moodle.unican.es/				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. CIENCIAS Y TECNICAS DEL AGUA Y DEL MEDIO AMBIENTE
Name of lecturer	AMAYA LOBO GARCIA DE CORTAZAR
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Office	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 2. DESPACHO (2028)
Other lecturers	

4. OBJECTIVES

Identify, understand and develop the concepts, terms and tools necessary for Environmental Management in the field of mining and energy business.

6. SUBJECT PROGRAM

CONTENTS	
1	BASIS OF ENVIRONMENTAL POLICY
2	CLIMATE CHANGE: the Kyoto Protocol, Clean Development Mechanisms, renewable energies in Spain.
3	SPANISH ENVIRONMENTAL REGULATION: analysis of the basic framework of environmental regulations and the competence framework.
4	SOLID WASTE MANAGEMENT: urban solid waste management, waste management in the industry. WATER RESOURCES MANAGEMENT: The Water framework Directive. Hidrologic Plans. Water Integrated Management in urban environment
5	AIR QUALITY MANAGEMENT: Air Pollutants. Meteorology and climatology. Air quality plans.
6	AIR QUALITY MANAGEMENT: Models of pollutant dispersion into air.
7	AIR QUALITY MANAGEMENT: Treatment of residual gases. Air quality plans.
8	ENVIRONMENTAL MANAGEMENT TOOLS I: Environmental Managemente Systems.
9	ENVIRONMENTAL MANAGEMENT TOOLS I: Environmental Audits.
10	ENVIRONMENTAL MANAGEMENT TOOLS I: Environmental Certification Systems
11	Cases study I
12	ENVIRONMENTAL MANAGEMENT TOOLS II: virtual water, ecological footprint, carbon footprint.
13	ENVIRONMENTAL MANAGEMENT TOOLS III: Life cycle Analysis
14	ENVIRONMENTAL MANAGEMENT TOOLS III: Strategic Environmental Assessment. Environmental Impact Assessment
15	Cases study II

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Final exam.	Written exam	Yes	Yes	40,00
Individual course work.	Work	No	Yes	30,00
Practices report.	Others	No	Yes	30,00
TOTAL				100,00

Observations
They are included in each item.

Observations for part-time students
The evaluation of part-time students will consist of the same sections as the evaluation of the rest of the students. Like the rest of the students, they will have the course material available in the virtual teaching platform Moodle.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC
Presentaciones del profesorado para cada tema. Casos prácticos presentados y propuestos.
Lamprecht, J.L. 1997. ISO 14000. Directrices para la implantación de un sistema de gestión medioambiental. AENOR.