

## SUBJECT TEACHING GUIDE

### 1140 - Exploitation Technology of mining resources

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

Academic year 2024-2025

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	MINING				
Course unit title and code	1140 - Exploitation Technology of mining resources				
Number of ECTS credits allocated	4,5	Term	Semester based (2)		
Knowledge Field					
Web					
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

Department	DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS				
Name of lecturer	RUBEN PEREZ ALVAREZ				
E-mail	ruben.perez@unican.es				
Office	E.P. de Ingeniería de Minas y Energía. Planta: + 2. DESPACHO (228)				
Other lecturers					

#### 4. OBJECTIVES

The main aims of this subject are listed next: calculate and design the right support of a mining work, adjust the ventilation of a mining work to the specific needs of each operation, design and calculate the parameters required for the removal of water mine, located and designed in the most objective point of view from a technical and environmental heaps and raft fine necessary in a mining exploitation, Knowledge for the essential elements of the electrical system and its risks and know the techniques of extraction and more suitable movement of land.

**6. SUBJECT PROGRAM**

CONTENTS	
1	SUPPORT IN MINING.
2	MINE VENTILATION.
3	MINE DRAINAGE.
4	MINING DUMPS.
5	ELECTRICITY IN THE MINE.
6	Mining works, industrial and ornamental rock extraction techniques, earthworks.

**7. ASSESSMENT METHODS AND CRITERIA**

Description	Type	Final Eval.	Reassessn	%
FINAL EXAM - Written Exam.	Written exam	Yes	Yes	60,00
ESSAY - Essay evaluation (Group Essay).	Work	No	Yes	25,00
PRACTICES - Practical Evaluation - Resolution of practical cases.	Others	No	Yes	15,00
<b>TOTAL</b>				<b>100,00</b>

**Observations**

In order to pass, the student will be required to obtain a minimum score of 4.0/10 in the Final Exam of Contents, and an average score of 5/10 in the whole subject. If the minimum requirement of the final exam is not fulfilled, the final score will be calculated according to the weighted average of the different criteria , until a maximum of 4.9. Any passed item of the continuous evaluation will be kept for the extraordinary exam.

**Observations for part-time students**

Part-time students will be evaluated according to the Normative of University of Cantabria. Part-time students will be evaluated following the Normative of University of Cantabria. In addition to the requirement of passing the Final Exam of Contents, and given the characteristics of the activities proposed for the continuous evaluation, part time students will be subject to them as the rest of students.

**8. BIBLIOGRAPHY AND TEACHING MATERIALS**

**BASIC**

Manual de Ventilación de Minas. Vicente Luque Cabal. AITEMIN  
 El agua en la minería y obras subterráneas. Consejo Superior de Ingenieros de Minas.  
 Fundamentos de Laboreo de Minas. Fernando Pla Ortíz. Fundación Gómez Pardo.  
 Curso de Laboreo de Minas. L. Cuadra. Fundación Gómez Pardo.  
 Manual de Evaluación y Diseño de Explotaciones MIneras. M. Bustillo Revuelta y Carlos López Jimeno.  
 Apuntes básicos de la asignatura. Proporcionados por el profesor.