

SUBJECT TEACHING GUIDE

G631 - Mineralogy

Degree in Mining Resources Engineering First Degree in Mining Resources Engineering

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	Degree in Mining Resources Engineering First Degree in Mining Resources Engineering			Type and Year	Compulsory. Year 4 Compulsory. Year 2
Faculty	School of Mines and Energy Engineering				
Discipline	Subject Area: Technology of Mining Prospection Module: Training in Exploitation of Mines				
Course unit title and code	G631 - Mineralogy				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

Department	DPTO. CIENCIAS DE LA TIERRA Y FISICA DE LA MATERIA CONDENSADA				
Name of lecturer	GEMA FERNANDEZ MAROTO				
E-mail	gema.fernandez@unican.es				
Office	E.P. de Ingeniería de Minas y Energía. Planta: + 0. DESPACHO SUBDIRECTOR (060)				
Other lecturers	PABLO CRUZ HERNANDEZ				

3.1 LEARNING OUTCOMES

- The student completes the subject knowing the genesis of minerals and rocks, as well as their properties and being able to identify minerals and rocks by their properties, and characteristics.

4. OBJECTIVES

The aim of the subject is to ensure that students acquire basic knowledge on the nature, origin, classification, composition and properties of minerals and rocks. They also have to be able to develop some skills related to: determination of diagnostic properties, identification of these properties in samples of minerals and rocks, recognition, identification and classification of minerals and rocks in the laboratory

6. SUBJECT PROGRAM	
CONTENTS	
1	Mineralogy: genesis and properties of minerals. Strunz classification.
2	Petrology: genesis and classification of rocks. Petrographic characteristics of the rocks. Genetic classification. Properties.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Attendance and delivery of a laboratory practical report Work 20,00%	Work	No	No	20,00
Group work and handing in a report Work 15,00%	Work	No	Yes	20,00
Theoretical exam block 1 Written exam 30,00%	Written exam	Yes	Yes	30,00
Theoretical exam block 2 and practical exam (laboratory practicals) Written exam 30,00%	Written exam	Yes	Yes	30,00
TOTAL				100,00
Observations				
In the evaluation of the student are the same criteria in June than in September, while retaining the note of the continuous assessment obtained in June and which is 40% of the note of the final grade. 60% corresponds to the test				
Observations for part-time students				
Evaluation of part-time will be made according to the criteria of the Center.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
Klein y Hurlbut. (1996). Manual de Mineralogía. Editorial Reverté.
Bastida, F. (2005). Geología, una visión moderna de las Ciencias de la Tierra. Editorial Trea
Castro Dorado, A.(1989). Petrografía Básica. Editorial Paraninfo.
Gómez Ortiz, D. (2004). Introducción a la Geología Práctica. Editorial Universitaria Ramón Areces.
Blatt, H. (2006). Petrology : igneous, sedimentary and metamorphic. Ed. W. H. Freeman and Company, cop. New York
Kornprobst, J. (1996). Manual de petrología metamórfica y su contexto geodinámico. Ed: Masson, Barcelona.
Le Maitre, R. W. (ed) (2002). Igneous rocks: a classification and glossary of terms : recommendations of the International Union of Geological Sciences, Subcommission on the Systematics of Igneous Rocks. Ed. Cambridge. Cambridge University Press
Klein, C. (2002). Manual of mineral science Ed. John Wiley & Sons. New York
Pozo Rodríguez, M. (2004).Geología práctica: introducción al reconocimiento de materiales y análisis de mapas. Ed. Pearson Prentice Hall. Madrid.