

## GUÍA DOCENTE ABREVIADA DE LA ASIGNATURA

G1627 - Geology

Grado en Ingeniería Civil  
Programa Cornell

Curso Académico 2023-2024

1. DATOS IDENTIFICATIVOS				
Título/s	Grado en Ingeniería Civil Programa Cornell		Tipología v Curso	Básica. Curso 2 Obligatoria. Curso 1
Centro	Escuela Técnica Superior de Ingenieros de Caminos, Canales y Puertos			
Módulo / materia	ASIGNATURAS OBLIGATORIAS FORMACIÓN BÁSICA GEOLOGÍA			
Código y denominación	G1627 - Geology			
Créditos ECTS	6	Cuatrimestre	Cuatrimestral (1)	
Web				
Idioma de impartición	Inglés	Forma de impartición	Presencial	

Departamento	DPTO. CIENCIA E INGENIERIA DEL TERRENO Y DE LOS MATERIALES		
Profesor responsable	MIGUEL ANGEL SANCHEZ CARRO		
E-mail	miguelangel.sanchez@unican.es		
Número despacho	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 1. DESPACHO (1080)		
Otros profesores			

### 3.1 RESULTADOS DE APRENDIZAJE

- Identification of the main geological structures and processes  
 Identification of the main problems and uses of rocks in Engineering Projects  
 Interpretation of geological maps: cross sections.

#### 4. OBJETIVOS

- Description of the internal structure of the earth.
  - Identification of the main properties of minerals and the relationship between physics and genetic features. Description of the main problems caused by specific minerals.
  - Rock characterization. Identification of the most common problems and uses of rocks in engineering projects.
  - Description of the elements of the rock mass. Interpretation of the effect caused by discontinuities in the rock mass .
- Description of the different rock mass classifications .
- Description of the most important geological features of the Iberian Peninsula
- Description of the main geomorphological processes.
- Identification of the effect caused by climatology on rocks .
  - Identification of the main processes, shapes and deposits of rivers and landslides.
  - Interpretation of geological maps and the arrangement of geological units. Identification of rock samples.
  - Introduction of the students with the use of new GIS (Geographic Information System) in Geology

#### 6. ORGANIZACIÓN DOCENTE

CONTENIDOS	
1	Internal structure of the Earth. Plate Tectonics. Mineralogy.
2	Igneous rocks. Sedimentary rocks. Metamorphic rocks.
3	Geological structures. Geology of Spain Field trip
4	Weathering and soils. River geomorphology. Slope geomorphology. Climatology. Managment of Geological Information with GIS

7. MÉTODOS DE LA EVALUACIÓN				
Descripción	Tipología	Eval. Final	Recuper.	%
Theory exam: section 1 and 2	Examen escrito	No	Sí	35,00
Practical exam	Examen escrito	No	Sí	10,00
Theory exam: section 3 and 4	Examen escrito	Sí	Sí	35,00
Geological study of a real project and delivery of practical activities	Evaluación en laboratorio	Sí	No	20,00
<b>TOTAL</b>				<b>100,00</b>
<b>Observaciones</b>				
The student will be able to complete the recovery activities only if the mark is less than five out of ten. The recovery activities will have the same procedure and assessment criteria than the original activity.				
<b>Criterios de evaluación para estudiantes a tiempo parcial</b>				
Students with Partial Time will complete all the assessment activities proposed for the development of the subject or will do an unique exam at the end of the academic period, excepting the epigraph of Exercises and Description of rock samples.  Regarding the Exercises and Description of rock samples, the students will do the practical activities and will hand them to the Lecturer before the exam of november and before the exam of February.				

## 8. BIBLIOGRAFÍA Y MATERIALES DIDÁCTICOS

BÁSICA
1. Geology for Engineers and Environmental Scientist, 3rd Edition Alan E. Kehew ISBN-10: 0131457306 Publisher: Prentice Hall Paperback 720 Pages Published November 2006
2. A GEOLOGY FOR ENGINEERS Blyth & Freitas Ed. Arnold

Esta es la Guía Docente abreviada de la asignatura. Tienes también publicada en la Web la información más detallada de la asignatura en la Guía Docente Completa.