

**1. General information****Course:** GEOLOGY**Type:** BASIC**Degree:** 409 - CHEMISTRY**Center:** 1 - FACULTY OF SCIENCE AND CHEMICAL TECHNOLOGY**Year:** 1**Main language:** Spanish**Use of additional languages:****Web site:****Code:** 57304**ECTS credits:** 6**Academic year:** 2022-23**Group(s):** 20 23**Duration:** First semester**Second language:****English Friendly:** Y**Bilingual:** N**Lecturer:** CARLOS JESUS SANCHEZ JIMENEZ - Group(s): 20 23

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2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course**Course competences**

Code	Description
CB01	Prove that they have acquired and understood knowledge in a subject area that derives from general secondary education and is appropriate to a level based on advanced course books, and includes updated and cutting-edge aspects of their field of knowledge.
CB03	Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues.
E13	Identify and characterize the properties of different geological materials, deduce the physical-chemical mechanisms involved in their formation and know their applications
G05	Acquire and adapt new knowledge and techniques of any scientific-technical discipline with incidence in the chemical field
T03	Proper oral and written communication
T05	Organization and planning capacity
T09	Motivation for quality, job security and awareness of environmental issues, with knowledge of internationally recognized systems for the correct management of these aspects
T11	Ability to obtain bibliographic information, including Internet resources

5. Objectives or Learning Outcomes**Course learning outcomes****Description**

Homogenize the knowledge of Geology already acquired by the students in the Secondary School courses and complete certain aspects that have not been previously studied with the necessary depth.

Know how to distinguish minerals and rocks, their characteristics and properties

Being able to distinguish the object of study of the branches of Geology: Geochemistry and Mineralogy and know the relationship between Chemistry and Geology.

Acquire the capacity for synthesis and objectivity, and promoting all those values and attitudes inherent in scientific activity.

To ensure that the student is able to search and select information in the field of Earth Sciences and is able to process and present it properly both orally and in writing.

Develop in the student the capacity of initiative to raise and solve problems of Geology, as well as to interpret the results obtained.

Learn to develop topics and acquire skills in oral and written exposure, developing their ability to work as a team.

Know what is the origin and evolution of chemical elements, the rock cycle and the different types of rocks present on Earth.

Know the mineral concept, its classification and the different characteristics of each group.

Know the structure and internal composition of the Earth, both from a point of view of its chemical and mineralogical composition, and from a mechanical point of view.

Know the crystalline matter from the point of view of symmetry, recognize the elements of symmetry that appear in crystals, classes and crystalline systems and know the main crystalline structures.

6. Units / Contents**Unit 1:****Unit 2:****Unit 3:****Unit 4:****Unit 5:**

Unit 6:
Unit 7:
Unit 8:
Unit 9:
Unit 10:

7. Activities, Units/Modules and Methodology							
Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	CB03	1.1	27.5	N	-	
Class Attendance (theory) [ON-SITE]	Lectures	E13	0.1	2.5	Y	N	
Class Attendance (practical) [ON-SITE]	Practical or hands-on activities	T05	0.8	20	N	-	
Progress test [ON-SITE]	Assessment tests	T03	0.1	2.5	Y	N	
Progress test [ON-SITE]	Assessment tests	CB01	0.1	2.5	Y	N	
Final test [ON-SITE]	Assessment tests	T03	0.12	3	Y	Y	
Group tutoring sessions [ON-SITE]	Case Studies	G05	0.2	5	N	-	
Self-study [OFF-SITE]	Self-study	T09	1.2	30	N	-	
Study and Exam Preparation [OFF-SITE]	Self-study	T05	1.2	30	N	-	
Other off-site activity [OFF-SITE]	Problem solving and exercises	T11	1.08	27	N	-	
Total:			6	150			
Total credits of in-class work: 2.52				Total class time hours: 63			
Total credits of out of class work: 3.48				Total hours of out of class work: 87			

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System			
Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Progress Tests	70.00%	0.00%	
Practical exam	30.00%	0.00%	
Final test	0.00%	100.00%	
Total:	100.00%	100.00%	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
Hours	hours
Unit 1 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	1
Progress test [PRESENCIAL][Assessment tests]	.3
Progress test [PRESENCIAL][Assessment tests]	.1
Final test [PRESENCIAL][Assessment tests]	.3
Self-study [AUTÓNOMA][Self-study]	1.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	1
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	1
Group 20:	
Initial date: 27-09-2021	End date: 29-09-2021
Group 23:	
Initial date: 27-09-2021	End date: 29-09-2021
Unit 2 (de 10):	
Activities	Hours
Progress test [PRESENCIAL][Assessment tests]	.3
Progress test [PRESENCIAL][Assessment tests]	1
Final test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.5
Group tutoring sessions [PRESENCIAL][Case Studies]	.3
Self-study [AUTÓNOMA][Self-study]	3
Study and Exam Preparation [AUTÓNOMA][Self-study]	2
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	2
Group 20:	

Initial date: 30-09-2021	End date: 01-10-2021
Group 23:	
Initial date: 30-09-2021	End date: 01-10-2021
Unit 3 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Progress test [PRESENCIAL][Assessment tests]	.3
Progress test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.3
Self-study [AUTÓNOMA][Self-study]	3
Study and Exam Preparation [AUTÓNOMA][Self-study]	3
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	1
Group 20:	
Initial date: 04-10-2021	End date: 08-10-2021
Group 23:	
Initial date: 04-10-2021	End date: 08-10-2021
Unit 4 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Progress test [PRESENCIAL][Assessment tests]	.3
Progress test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.5
Self-study [AUTÓNOMA][Self-study]	4.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	1
Group 20:	
Initial date: 11-10-2021	End date: 15-10-2021
Group 23:	
Initial date: 11-10-2021	End date: 15-10-2021
Unit 5 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	7
Progress test [PRESENCIAL][Assessment tests]	.4
Progress test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.5
Self-study [AUTÓNOMA][Self-study]	5
Study and Exam Preparation [AUTÓNOMA][Self-study]	5
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	1
Group 20:	
Initial date: 18-10-2021	End date: 22-10-2021
Group 23:	
Initial date: 18-10-2021	End date: 22-10-2021
Unit 6 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	1
Progress test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.3
Self-study [AUTÓNOMA][Self-study]	1
Study and Exam Preparation [AUTÓNOMA][Self-study]	1
Group 20:	
Initial date: 25-10-2021	End date: 29-10-2021
Group 23:	
Initial date: 25-10-2021	End date: 29-10-2021
Unit 7 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.5
Progress test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	.5
Self-study [AUTÓNOMA][Self-study]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	2
Group 20:	
Initial date: 01-11-2021	End date: 05-11-2021
Group 23:	
Initial date: 01-11-2021	End date: 05-11-2021
Unit 8 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Progress test [PRESENCIAL][Assessment tests]	.3

Final test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	1
Self-study [AUTÓNOMA][Self-study]	3
Study and Exam Preparation [AUTÓNOMA][Self-study]	3
Group 20:	
Initial date: 08-11-2021	End date: 19-11-2021
Group 23:	
Initial date: 08-11-2021	End date: 19-11-2021
Unit 9 (de 10):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.5
Progress test [PRESENCIAL][Assessment tests]	.2
Final test [PRESENCIAL][Assessment tests]	.3
Group 20:	
Initial date: 18-10-2021	End date: 22-10-2021
Group 23:	
Initial date: 18-10-2021	End date: 22-10-2021
Unit 10 (de 10):	
Activities	Hours
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	20
Progress test [PRESENCIAL][Assessment tests]	1
Final test [PRESENCIAL][Assessment tests]	.3
Final test [PRESENCIAL][Assessment tests]	2
Self-study [AUTÓNOMA][Self-study]	12
Study and Exam Preparation [AUTÓNOMA][Self-study]	9
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	22
Group 20:	
Initial date: 22-11-2021	End date: 26-11-2021
Group 23:	
Initial date: 22-11-2021	End date: 26-11-2021
Global activity	
Activities	hours
Study and Exam Preparation [AUTÓNOMA][Self-study]	30
Self-study [AUTÓNOMA][Self-study]	35
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	20
Progress test [PRESENCIAL][Assessment tests]	2.5
Final test [PRESENCIAL][Assessment tests]	3
Group tutoring sessions [PRESENCIAL][Case Studies]	0.3
Progress test [PRESENCIAL][Assessment tests]	3.2
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	28
Class Attendance (theory) [PRESENCIAL][Lectures]	25.5
Class Attendance (theory) [PRESENCIAL][Lectures]	2.5
Total horas: 150	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Bustillo M y Lopez Jimeno C.	Recursos Minerales	Entorno gráfico			1996	
Castro A.	Petrografía básica	Parninfo			1989	
Pozo M, González J y Giner J	Geología práctica	Pearson Ed.			2004	
Díaz Mauriño C.	Prácticas de mineralogía	Alhambra SL			1988	
Bastida F.	Una visión moderna de las Ciencias de la Tierra .Vol 2				2005	
Bastida F.	Ciencias de la Tierra .Vol 1				1998	
Monroe Js, Wicander R y Pozo M	Geología: dinámica y evolución de la Tierra	Paraninfo				
Vera JA. et al	Geología de España	Edelvives			2000	
Nesse WD	Introduction to Mineralogy	Oxfor Univ.			2009	
Anguita F. el al	Geología: Procesos internos	Edelvives			1991	
Anguita F. el al	Origen e Historia de la Tierra	Rueda			1988	
Hurburt CS y Klein C	Manual de mineralogía de Dana	Reverté SA			1989	
Vazquez F.	Geología económica de los recursos minerales	Fundac, Gomez Pardo Edt.			1990	
Gibson W y Moreno T.	The geology of Spain	Geol. Soc. Edt.			2006	
Ancochea F. et al	Geología: Procesos externos	Edelvives			1993	
Kuzwart M.	Industrial minerals and rocks	Elsevier			1984	
Lopez Jimeno C.	Rocas ornamentales	LOEMCO edt.			1995	
Tarbuck E y Lutgens F	Ciencias de la Tierra	Prentice Hall			2005	
Wicander R y Monroe JS	Fundamentos de Geología	Thomson Ed			2000	