

DEGREE IN GEOLOGY (2018-19)

Código: C051	Fecha de aprobación: 22/03/2012	Precio: 20,27 1st-registration credits
Créditos: 240	Título: Undergraduate 3-5 years (ECTS)	

RAMA

Sciences

PLAN

DEGREE IN GEOLOGY

TIPO DE ENSEÑANZA

Face-to-face

CENTROS DONDE SE IMPARTE

Faculty of Science

ESTUDIO IMPARTIDO CONJUNTAMENTE CON

Solo se imparte en esta universidad

FECHAS DE EXAMEN

[Acceda al listado de fechas de examen para esta titulación.](#)

PLAN DE ESTUDIOS OFERTADO EN EL CURSO 2018-19

Leyenda: No ofertada Sin docencia

FIRST YEAR

CORE SUBJECTS

60 créditos

Curso	Título	Créditos	Subject
1	CORE	6	25517 - GEOLOGY I
1	CORE	6	25518 - GEOLOGY II
1	CORE	6	25519 - BASIC LABORATORY OPERATIONS
1	CORE	6	26010 - MATHEMATICS 1
1	CORE	6	26011 - PHYSICS 1
1	CORE	6	26012 - CHEMISTRY 1
1	CORE	6	26013 - BIOLOGY
1	CORE	6	26015 - MATHEMATICS II
1	CORE	6	26016 - PHYSICS II
1	CORE	6	26017 - CHEMISTRY II

SECOND YEAR

COMPULSORY SUBJECTS

60 créditos

Curso	Título	Créditos	Subject
2	COMPULSORY	6	25520 - CRYSTALLOGRAPHY
2	COMPULSORY	9	25521 - MINERALOGY
2	COMPULSORY	9	25522 - STRATIGRAPHY
2	COMPULSORY	6	25523 - SEDIMENTOLOGY
2	COMPULSORY	9	25524 - PALEONTOLOGY
2	COMPULSORY	9	25525 - GEOMORPHOLOGY
2	COMPULSORY	6	25526 - CARTOGRAPHIC TECHNIQUES
2	COMPULSORY	6	25527 - GEOLOGICAL CARTOGRAPHY I

THIRD YEAR

COMPULSORY SUBJECTS

60 créditos

Curso	Título	Créditos	Subject
3	COMPULSORY	9	25530 - STRUCTURAL GEOLOGY I
3	COMPULSORY	6	25531 - STRUCTURAL GEOLOGY II
3	COMPULSORY	6	25532 - HISTORICAL AND REGIONAL GEOLOGY
3	COMPULSORY	6	25533 - GEOCHEMISTRY AND GEOCHEMICAL PROSPECTING
3	COMPULSORY	6	25534 - GEOPHYSICS AND GEOPHYSICAL PROSPECTING
3	COMPULSORY	9	25535 - IGNEOUS AND METAMORPHIC PETROLOGY
3	COMPULSORY	6	25536 - SEDIMENTARY PETROLOGY
3	COMPULSORY	6	25537 - GEOLOGICAL CARTOGRAPHY II
3	COMPULSORY	6	25538 - GEOLOGICAL CARTOGRAPHY III

FOURTH YEAR

COMPULSORY SUBJECTS

42 créditos

Curso	Título	Créditos	Subject
4	COMPULSORY	6	25540 - FUNDAMENTALS OF HYDROGEOLOGY
4	COMPULSORY	6	25541 - APPLIED GEOLOGY IN ENGINEERING
4	COMPULSORY	6	25542 - MINERAL AND ENERGY RESOURCES
4	COMPULSORY	6	25549 - PROJECTS
4	END OF DEGREE WORK	18	25999 - FINAL PROJECT

OPTIONAL SUBJECTS

18 créditos

Curso	Título	Créditos	Subject
4	OPTIONAL	6	25500 - TRAINEESHIP
4	OPTIONAL	6	25543 - FURTHER HYDROGEOLOGY
4	OPTIONAL	6	25544 - APPLIED PETROLOGY
4	OPTIONAL	6	25545 - MICROPALAEONTOLOGY
4	OPTIONAL	6	25546 - TECHTONICS
4	OPTIONAL	6	25547 - ENVIRONMENTAL GEOLOGY AND GEOLOGICAL HAZARDS
4	OPTIONAL	6	25548 - FURTHER APPLIED GEOLOGY IN ENGINEERING

LANGUAGE

Superado este bloque se obtiene
DEGREE IN GEOLOGY

GENERAL AIMS OF THE DEGREE

Geology is the science that studies the Earth, the materials of which it is made, the processes by which it was formed, its history and how it interacts with humans and life in general. Accordingly, the fundamental aim of the Degree in Geology is to provide students with essential knowledge, skills and proficiencies in Geology and related sciences, preparing them for future professions in the field.

The general aims of the University of Alicante Degree in Geology are:

- To give students a solid, balanced base of theoretical and practical geological knowledge.
- To provide students with a scientific and technical education in line with current scientific methods, giving them the necessary skills to obtain, analyse and interpret data from field and laboratory work and from the bibliography.
- To prepare graduates for the labour market in any of the fields corresponding to their professional skills, meeting social needs arising at any given time.
- To produce graduates capable of evaluating the importance of Geology in its economic, environmental and social context, with special awareness of the need for sustainable use of natural resources.
- To provide students with the essential knowledge and skills to enable them to specialise further in Geology or other multi-disciplinary areas.
- Provide to the students a base of knowledges and skills that allow him continue his studies in skilled areas of Geology or multidisciplinary areas.

- [Credit structure of the degree course](#)
- [Distribution of credits per subject type](#)
- [General description of the course programme](#)

CREDIT STRUCTURE OF THE DEGREE COURSE

The University of Alicante Degree in Geology course programme is worth a total of 240 credits, distributed over four years worth 60 ECTS credits each. In turn, each academic year is organised into 30-credit semesters. The 240 credits cover all the theoretical and practical aspects to be acquired by students, distributed into core, compulsory and optional subjects, and the final project.

In order to make the course compatible with other activities, students are allowed to take a part-time course consisting of 30 credits per academic year. This does not include new students entering the first year who, in accordance with current legislation, must register for the full year, or for the total number of credits corresponding to the first year of the course programme, or, if no total number of credits is specified, for at least 60 credits (Art. 145 Legislative Decree 1/2005 of 25 February, of the Council of the Regional Government, approving the Revised Text of the Valencian Government Rates Act).

DISTRIBUTION OF CREDITS PER SUBJECT TYPE

Subject type	Credits
Core	60
Compulsory	144
Optional	18
Final Project	18
Total credits	240

GENERAL DESCRIPTION OF THE COURSE PROGRAMME

The Course Programme is structured into four modules (**core, compulsory, complementary and optional**).

- The **core module** is covered in the first year and is worth 60 credits. 54 of these form core subjects in the area of the Science, and comprise the disciplines of **Mathematics, Physics, Chemistry, Biology and Geology**. These are complemented by the fundamental, cross-disciplinary course, **Basic Laboratory Operations**, worth 6 credits. The aim of this subject is to allow students to acquire practical desk study and laboratory skills (basics of contour map projection and application to geological maps; data processing, etc.) together with cross-disciplinary proficiencies such as IT and data-processing skills, oral and written communication, reading documents in English (considered priority skills by the University of Alicante) and teamwork.
- The **compulsory module** is taught in the 2nd, 3rd and 4th Years. Students take a total of 114 credits, divided into **two courses (Geological Materials and Processes, and Economic Geology)**, with content from the six fundamental areas of Geology (Crystallography and Mineralogy, Stratigraphy, External Geodynamics, Internal Geodynamics, Palaeontology and Petrology and Geochemistry). Geological Materials and Processes comprises seven subjects worth 6 credits each and six subjects worth 9 credits each, with 24 credits being taught in each of the 3rd, 4th, 5th and 6th semesters. Economic Geology is taught in the 4th Year (semester 7) and consists of three subjects each worth 6 credits.
- The **Complementary Module** is taught alongside the **Compulsory Module**. It consists of **three courses: Desk Study techniques, Field Work techniques, and Geology Projects and Environmental Geology**. All subjects within the first two courses are of an eminently practical nature, enabling students to acquire essential proficiencies and skills in geological and geoscientific cartography. Completing the module is the third course, "Projects in Geology and Environmental Geography", which complements the education of Geology Graduates, enabling them to acquire the necessary skills for future professional practice as geologists.
- The **Optional module** consists of the Optional subjects (42 credits) and Final Project (18 credits).
 - The optional subjects are mainly applied subjects. Their intention is to offer future graduates experience in applied Geology in a range of fields. A total of 7 subjects will be offered, including the optional Work Experience (6 credits). Semester 7 consists of two subjects, from which students must choose one; in Semester 8, students must take choose two subjects from the four on offer. Students may take "Work Experience" in either of these two semesters. Subjects are: Extended Hydrogeology. Extended Geology applied to Engineering. Geological Risks. Micropalaeontology. Tectonics. Applied Petrology. Work Experience.
 - Students may take work experience in 6-ECTS blocks, as follows: **Work experience not related to the Final Project:** Successful work experience programmes are worth up to 6 optional credits. **Work experience related to the Final Project:** Students may take 6 optional work experience credits and continue with one of the experimental blocks of the Final Project, up to a maximum of 18

ECTS. Students may take 6 credits for work experience exclusively related to one of the experimental blocks of the Final Project. In this case, the supplement to the Degree will specify that work experience comprised part of the student's final project, or the Science Faculty will establish the requirements necessary for the Final Project, in accordance with the Regulations for Progression and Termination established by the University of Alicante.

- The final phase of the course programme, the **Final Project**, has been divided into three blocks, each worth 6 ECTS: two practical blocks and a written block.

LANGUAGE REQUIREMENT (IN A FOREIGN LANGUAGE)

Students who study an **undergraduate degree** at the University of Alicante must **confirm** a minimum **level of B1 in a foreign language** (a B2 is recommended) in order to **obtain the diploma**.

The required language level is in accordance with the Common European Framework of Reference for Languages.

The language accreditation requirement can be obtained previously or at any time during university studies. However, the language requirement will be necessary in order to be able to **assess the final year project**.

The **different forms** of obtaining such language requirement can be consulted in the additional information in this section.

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LANGUAGE TEACHING COMPETENCE CERTIFICATE

Students who want to have a career in non-university **teaching** when they finish their studies are **recommended** to obtain the **teaching competence certificate** (Valencian and/or foreign languages).

This certificate can be obtained by taking specific itineraries in your university studies or by taking the **UA teaching competence course in Valencian, German, French and English**.

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FINAL YEAR PROJECT (TFG)

All the official undergraduate degrees must be completed by preparing and defending a final year project, which must be done in the final phase of the studies and be aimed at the assessment of competences associated to the degree.

The final year project must be an original, independent and personal work. The elaboration of it may be individual or coordinated. Each student will prepare this project under the supervision of a tutor, allowing students to show the received training content in an integrated way, as well as the acquired competences associated to the undergraduate degree.

In order to **register in the final year project**, students must comply with the requirements established in the "Regulations for continuation studies for students registered in undergraduate degrees at the University of Alicante". Among the requirements established to be able to register in the final year project, a minimum of 168 credits must be passed in undergraduate degrees with a total of 240 credits, and a minimum of 228 credits in undergraduate degrees with a total of 300 credits or more.

In order for **the final year project to be assessed**, a B1 level of a foreign language (B2 is recommended) must be confirmed.

[+info](#)

- [Access routes](#)
- [Procedure for applying for admission](#)
- [Recommended applicant profile](#)
- [Number of places and pass marks](#)

ACCESS ROUTES

Admission to this degree course is open to any applicant who meets one of the following entrance requirements:

1. **SPANISH BACCALAUREATE (LOMCE) UNIVERSITY ENTRANCE EXAM (PAU):** Although students can access university by means of any Baccalaureate specialization, the recommended one is **Sciences**.

ADMISSION SCORES FOR THIS DEGREE CAN BE IMPROVED BY TAKING THE SPECIFIC MODULES OF THE UNIVERSITY ENTRANCE EXAM (PAU) AS INDICATED IN THE TABLE BELOW WITH THEIR RESPECTIVE WEIGHTINGS.

TABLE 1

MODULE WEIGHTINGS		PERFORMING ARTS	BIOLOGY	AUDIO VISUAL CULTURE I	TECHNICAL DRAWING II	DESIGN	BUSINESS ECONOMICS	PHYSICS	FUNDAMENTALS OF ART II	GEOGRAPHY	GEOLOGY	GREEK II	HISTORY OF PHILOSOPHY	HISTORY OF ART	LATIN II	MATHEMATICS APPLIED TO SOCIAL SCIENCES II	MATHEMATICS II	CHEMISTRY	
Academic year 2017/18	0,1		X																X
	0,2							X			X						X		

2. **PREVIOUS BACCALAUREATES WITH OR WITHOUT A PASS IN THE UNIVERSITY ENTRANCE EXAM (PAU):** Students who have completed their Baccalaureate under previous education systems and have passed the PAU will be able to use the mark obtained in their application.

HOWEVER, STUDENTS CAN TAKE SPECIFIC EXAM MODULES DURING THE VOLUNTARY PAU EXAM PERIOD IN ORDER TO IMPROVE THEIR ADMISSION SCORE AS SHOWN IN TABLE 1. THEY CAN ALSO SIT FOR THE OBLIGATORY PAU EXAMS, IN WHICH CASE THEY WILL HAVE TO TAKE ALL THE EXAMS SCHEDULED DURING THIS PERIOD.

3. **VOCATIONAL EDUCATION:** Vocational educational qualifications such as senior technician, senior technician of plastic arts and design, or senior technician in sports is the preferred professional area although access to this degree may be through any professional field.

ADMISSION SCORES CAN BE IMPROVED BY TAKING THE PAU EXAM IN UP TO 4 OF THE MODULES IN TABLE 1.

4. **STUDENTS FROM EDUCATION SYSTEMS IN COUNTRIES OF THE EUROPEAN UNION OR OTHER STATES WITH WHICH SPAIN HAS AN INTERNATIONAL AGREEMENT:** Accreditation is required and issued by *Universidad Nacional de Educación a Distancia (UNED)*.

STUDENTS CAN SIT FOR EXAMS IN SUBJECTS INCLUDED IN THE PRUEBAS DE COMPETENCIAS ESPECÍFICAS (PCE), ORGANISED BY THE UNED, IN ORDER TO IMPROVE THEIR ADMISSION SCORE UP TO 14 POINTS AS INDICATED IN THE WEIGHTINGS IN TABLE 1.

5. **STUDENTS FROM FOREIGN EDUCATION SYSTEMS:** Prior to applying for the validation of their foreign Baccalaureate, students may sit for up to 4 exams in subjects offered by the *Pruebas de Competencias Específicas (PCE)* organised by **UNED** (at least one subject from the core subjects).

THE WEIGHTINGS INDICATED IN TABLE 1 WILL BE APPLIED TO CORE AND/OR OPTIONAL SUBJECTS.

6. **OTHER:** University degrees and other similar qualifications. University entrance exam for students over 25 (preferential option: Sciences). Access on the basis of professional experience (applicants over 40 years of age). Access to applicants aged 45 years or more by means of an exam.

Weightings of the subjects of the specific phase of the Proof of Access to the University (PAU) in the previous years

High School Diploma Subjects	Weighting parameters	Music Analysis II	Biology	Earth and Environmental Sciences	Drawing II	Technical Drawing II	Design	Business Economics	Electronics	Physics	Geography	Greek II	History of Music and Dance	Art History	Latin II	Musical Language and Practice	World Literature	Mathematics Applied to the Social Sciences II	Mathematics II	Chemistry	Expressive techniques in the Arts and Crafts	Industrial Technology II	
Academic Year 2010-11	0.1																						
2011-12	0.2		x	x		x			x	x									x	x			x
Academic Years 2012-13	0.1		x						X											x			x
2013-14																							
2014-15	0.2			x						x									x				
2015-16																							
2016-17																							

PROCEDURE FOR APPLYING FOR ADMISSION: PRE-ENROLMENT AND REGISTRATION

- Anticipated number of places offered during the first pre-enrolment session: 50
- In order to apply for a place, the procedure and pre-enrolment periods established each year must be observed. [Information concerning the application procedure \(Pre-enrolment\)](#).
- Applicants admitted to a course must formally register within the timescale established annually in the enrolment calendar. Registration [Information](#).

RECOMMENDED APPLICANT PROFILE

It is recommended that students who wish to study for a degree in Geology have a basic scientific-technical education, preferably with an understanding of the disciplines of Mathematics, Physics, Biochemistry and Geology.

NUMBER OF PLACES AND PASS MARKS

YEARS	NUMBER OF PLACES	PASS MARKS						
		GENERAL	OVER 25	OVER 40	OVER 45	GRADUATES	SPORTSPEOPLE	DISABLED
2010-11	50	5,738	5,710	5,900	---	6,700	---	---
2011-12	50	6,032	6,746	5,000	---	7,600	---	---
2012-13	50	6,091	7,235	---	---	---	---	---
2013-14	50	5,000	7,415	---	---	---	---	---
2014-15	50	5,000	---	---	---	5,000	---	---
2015-16	50	5,833	6,260	---	---	6,150	---	---
2016-17	50	6,286	---	---	---	---	---	---
2017-18	50	5,000	---	---	---	5,000	---	---

- "Pass marks" indicated correspond to the results of the first adjudication of June.
- The definitive marks can be inferior to the here collected.

PROFESSIONAL PROFILES

Students wishing to study for the Degree in Geology should have a scientific-technical background, ideally with a grounding in the disciplines of Mathematics, Physics, Biological Chemistry and Geology.

Desirable attributes of future Geology students should include:

- A capacity for work (constancy, method, order).
- A capacity for reasoned thought and critical analysis.
- A scientific spirit.
- A capacity to retain, interpret and apply knowledge.
- Problem-solving skills.
- A capacity for synthesis and abstract thought.
- Recommended complementary skills: English and user-level computer skills.

IMPLEMENTATION

TIMESCALE

Academic Year	Implementation of the Degree in Geology
2010-2011	<i>1st Year</i>
2011-2012	<i>2nd Year</i>
2012-2013	<i>3^d Year</i>
2013-2014	<i>4th Year</i>

The Degree in Geology will be implemented from the academic year 2010-2011 onwards, if verified by ANECA. In this case, by the academic year 2013-2014, all of the Degree courses will be being taught.

CREDIT EQUIVALENCE BETWEEN UA SCIENCE FACULTY DEGREES

The Faculty of Sciences at the University of Alicante offers five degree courses in the area of the Sciences (Biology, Marine Sciences, Geology, Chemistry and Mathematics) and one degree course in the area of Health Sciences (Optics and Optometry). In order to facilitate mobility between courses at the end of the first year, recognition will be given to the credits obtained in their first year of study by students entering the Chemistry degree programme from other Science Faculty degree programmes.

This may mean that in the second year of the Degree, some students lack a basic foundation, which could hinder the progress of their studies. In these cases, tutorial help will be offered to students in order to remedy this lack and provide guidance in certain fundamental areas.

DEGREE IN GEOLOGY. SYLLABUS SUMMARY

ESTRUCTURA DEL PLAN DE ESTUDIOS POR TIPO DE MATERIA

TIPO DE MATERIA	CRÉDITOS
Formación básica (FB)	60
Obligatorias (OB)	144
Optativas incluidas	18
Prácticas Externas (OP)	18
Trabajo Fin de Grado	18
Total créditos	240

DISTRIBUCIÓN POR CURSOS

PRIMER CURSO		SEGUNDO CURSO		TERCER CURSO		CUARTO CURSO		
Semestre 1	Semestre 2	Semestre 3	Semestre 4	Semestre 5	Semestre 6	Semestre 7	Semestre 8	
Matemáticas I 6 ECTS	Matemáticas II 6 ECTS	Cristalografía 6 ECTS	Sedimentología 6 ECTS	Geología Histórica y Regional 6 ECTS	Geología Estructural II 6 ECTS	Fundamentos Hidrogeología 6 ECTS	Trabajo Fin de Grado ⁽¹⁾ 18 ECTS	
Física I 6 ECTS	Física II 6 ECTS	Estratigrafía 9 ECTS	Mineralogía 9 ECTS	Geología Estructural I 9 ECTS	Geofísica y Prospección Geofísica 6 ECTS	Recursos Minerales y Energéticos 6 ECTS		
Química I 6 ECTS	Química II 6 ECTS				Geoquímica y Prospección Geoquímica 6 ECTS	Geología Aplicada a la Ingeniería 6 ECTS		
Biología 6 ECTS	Operaciones Básicas de Laboratorio 6 ECTS	Paleontología 9 ECTS	Geomorfología 9 ECTS	Petrología Ígnea y Metamórfica 9 ECTS	Petrología Sedimentaria 6 ECTS	Proyectos 6 ECTS		Asignatura Optativa ⁽²⁾ 6 ECTS
Geología I 6 ECTS	Geología II 6 ECTS	Técnicas Cartográficas 6 ECTS	Cartografía Geológica I 6 ECTS	Cartografía Geológica II 6 ECTS	Cartografía Geológica III 6 ECTS	Asignatura Optativa ⁽²⁾ 6 ECTS		Asignatura Optativa ⁽²⁾ 6 ECTS

⁽¹⁾ Previamente a la evaluación del Trabajo Fin de Grado el alumno debe acreditar el nivel B1 de inglés de acuerdo con la Normativa establecida en la UA.

⁽²⁾ **Optatividad:** La oferta del semestre 7 está compuesta por dos asignaturas de las que el alumno elige una y en el semestre 8 la oferta es de 4 asignaturas de las que el alumno debe cursar dos. La asignatura "Prácticas Externas" puede ser cursada por el estudiante en cualquiera de los dos semestres.

ASIGNATURAS OPTATIVAS					
Petrología Aplicada	6 ECTS	Micropaleontología	6 ECTS	Ampliación de Hidrogeología	6 ECTS
Geología Ambiental y Riesgos Geológicos	6 ECTS	Ampliación de Geología Aplicada a la Ingeniería	6 ECTS	Tectónica	6 ECTS
Prácticas Externas	6 ECTS				

- [Verified Report](#)
- [Resolution from the Universities Council: Positive verification](#)
- [Resolution from the Universities Council: Accreditation renewal](#)
- [Authorization from the Valencian Government](#)

Internal Quality Assurance System (SGIC) of the Title

- [Structure of the Centre for Quality](#)
 - [Comission of Internal Quality Guarantee](#)
 - [Other Commissions](#)
- [Handbook SGIC](#)
- [Procedures](#)
 - [Strategic \(PE\)](#)
 - [Key \(PC\)](#)
 - [Support \(PA\)](#)
 - [Measurement \(PM\)](#)
- [Management of the SGIC \(Access to ASTUA\)](#) 

Follow-up of the Title

- [Self-reports UA](#)
- [External reports AVAP](#)
- [Other reports](#)
- [Improvement Plans](#)
- [Progress and Learning Outcomes](#)

Information about the Centre	General information for students
<ul style="list-style-type: none"> • Faculty of Sciences Telephone:+ 34 96 590 3557 Fax:+ 34 96 590 3781 facu.ciencias@ua.es http://ciencias.ua.es/en/ • Mobility Programmes • Work experience with companies and institutions • Reception and welcome events • Tutorial Action Programme 	<ul style="list-style-type: none"> • Grants and assistance • Accommodation • Student refectories and cafeterias • Transport • Emergency medical care • Insurance • Services for students with special needs • Student representation and participation • University student identity card (TIU) • Frequently asked questions
UA: General Regulations	+ Information about qualifications
<ul style="list-style-type: none"> • Academic regulations and procedures of the University of Alicante 	<ul style="list-style-type: none"> • Official State Gazette (BOE) on publication of course programmes • Own Web • Information pamphlet • Video presentation of the degree