

## DEGREE IN MARINE SCIENCES (2019-20)

<b>Código:</b> C055	<b>Fecha de aprobación:</b> 22/03/2012	<b>Precio:</b> 20,27 1st-registration credits
<b>Créditos:</b> 240	<b>Título:</b> Undergraduate 3-5 years (ECTS)	

### RAMA

Sciences

### PLAN

DEGREE IN MARINE SCIENCES

### 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 2019-20

Leyenda: No ofertada Sin docencia

### FIRST YEAR

CORE SUBJECTS				60 créditos
Curso	Título	Créditos	Subject	
1	CORE	6	<a href="#">24511 - FUNDAMENTALS OF MATHEMATICS</a>	
1	CORE	6	<a href="#">24514 - BIOCHEMISTRY</a>	
1	CORE	6	<a href="#">24519 - INTRODUCTION TO MARINE SCIENCES</a>	
1	CORE	6	<a href="#">26510 - CHEMISTRY</a>	
1	CORE	6	<a href="#">26513 - GENETICS</a>	
1	CORE	6	<a href="#">26515 - CELLULAR BIOLOGY</a>	
1	CORE	6	<a href="#">26516 - STATISTICS</a>	
1	CORE	6	<a href="#">26517 - PHYSICS</a>	
1	CORE	6	<a href="#">26518 - GEOLOGY</a>	
BIOLOGY				6 créditos máximo 6 créditos
Curso	Título	Créditos	Subject	
1	CORE	6	<a href="#">24553 - FUNDAMENTALS OF BIOLOGY</a>	

### SECOND YEAR

COMPULSORY SUBJECTS				60 créditos
Curso	Título	Créditos	Subject	
2	COMPULSORY	6	<a href="#">24521 - FUNDAMENTALS OF ZOOLOGY</a>	
2	COMPULSORY	6	<a href="#">24524 - MARINE ZOOLOGY</a>	
2	COMPULSORY	6	<a href="#">24525 - MARINE BOTANY</a>	
2	COMPULSORY	6	<a href="#">24526 - MARINE BIOLOGY</a>	
2	COMPULSORY	6	<a href="#">24527 - FLUID AND WAVE MECHANICS</a>	
2	COMPULSORY	6	<a href="#">24528 - CHEMISTRY OF SOLUTIONS</a>	
2	COMPULSORY	6	<a href="#">24529 - SEDIMENTOLOGY</a>	
2	COMPULSORY	6	<a href="#">26521 - ECOLOGY</a>	
2	COMPULSORY	6	<a href="#">26524 - MICROBIOLOGY</a>	
BOTANY				6 créditos máximo 6 créditos
Curso	Título	Créditos	Subject	
2	COMPULSORY	6	<a href="#">24554 - FUNDAMENTALS OF BOTANY</a>	

### THIRD YEAR

COMPULSORY SUBJECTS				60 créditos
Curso	Título	Créditos	Subject	
3	COMPULSORY	6	<a href="#">24530 - AQUACULTURE</a>	
3	COMPULSORY	6	<a href="#">24531 - MARINE BIOTECHNOLOGY</a>	
3	COMPULSORY	6	<a href="#">24532 - MARINE POLLUTION</a>	
3	COMPULSORY	6	<a href="#">24533 - MARINE ECOLOGY</a>	
3	COMPULSORY	6	<a href="#">24534 - STATISTICS APPLIED TO MARINE RESOURCES</a>	
3	COMPULSORY	6	<a href="#">24535 - MARINE GEOLOGY</a>	
3	COMPULSORY	6	<a href="#">24536 - BIOLOGICAL OCEANOGRAPHY</a>	
3	COMPULSORY	6	<a href="#">24537 - PHYSICAL OCEANOGRAPHY</a>	
3	COMPULSORY	6	<a href="#">24538 - CHEMICAL OCEANOGRAPHY</a>	
3	COMPULSORY	6	<a href="#">24539 - COASTAL MANAGEMENT</a>	

### FOURTH YEAR

COMPULSORY SUBJECTS				30 créditos
Curso	Título	Créditos	Subject	
4	END OF DEGREE WORK	18	<a href="#">24999 - FINAL PROJECT</a>	
4	COMPULSORY	6	<a href="#">24551 - FISHERIES BIOLOGY</a>	
4	COMPULSORY	6	<a href="#">24552 - MARINE SCIENCES PROJECTS</a>	
OPTIONAL SUBJECTS				30 créditos
Curso	Título	Créditos	Subject	

4	OPTIONAL	6	<a href="#">24500 - TRAINEESHIP</a>
4	OPTIONAL	6	<a href="#">24540 - SEAWATER RESOURCE ENGINEERING</a>
4	OPTIONAL	6	<a href="#">24541 - MANAGEMENT AND PRESERVATION OF LIVE MARINE RESOURCES</a>
4	OPTIONAL	6	<a href="#">24542 - APPLIED PLANKTOLOGY AND MARINE MICROPALAEONTOLOGY</a>
4	OPTIONAL	6	<a href="#">24543 - MARINE MINERAL RESOURCES</a>
4	OPTIONAL	6	<a href="#">24544 - COASTAL AND OCEANIC ENGINEERING</a>
4	OPTIONAL	6	<a href="#">24545 - INTRODUCTION TO METEOROLOGY</a>
4	OPTIONAL	6	<a href="#">24546 - GEOGRAPHICAL PLANNING AND MANAGEMENT OF TOURIST COASTAL AREAS</a>
4	OPTIONAL	6	<a href="#">24547 - MARINE AND COASTAL LANDSCAPE ASSESSMENT AND ENVIRONMENTAL IMPACT</a>
4	OPTIONAL	6	<a href="#">24548 - SYSTEMS ANALYSIS</a>
4	OPTIONAL	6	<a href="#">24549 - SCIENTIFIC DIVING</a>
4	OPTIONAL	6	<a href="#">24550 - GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING</a>

**LANGUAGE**

Superado este bloque se obtiene  
**DEGREE IN MARINE SCIENCES**

**ROUTE 1. MARINE RESOURCES**

**OPTIONAL SUBJECTS**

24 créditos

Curso	Título	Créditos	Subject
4	OPTIONAL	6	<a href="#">24540 - SEAWATER RESOURCE ENGINEERING</a>
4	OPTIONAL	6	<a href="#">24541 - MANAGEMENT AND PRESERVATION OF LIVE MARINE RESOURCES</a>
4	OPTIONAL	6	<a href="#">24542 - APPLIED PLANKTOLOGY AND MARINE MICROPALAEONTOLOGY</a>
4	OPTIONAL	6	<a href="#">24543 - MARINE MINERAL RESOURCES</a>

Superado este bloque se obtiene  
**ROUTE 1: MARINE RESOURCES**

**ROUTE 2. MARINE AND COASTAL ENVIRONMENT**

**OPTIONAL SUBJECTS**

24 créditos

Curso	Título	Créditos	Subject
4	OPTIONAL	6	<a href="#">24544 - COASTAL AND OCEANIC ENGINEERING</a>
4	OPTIONAL	6	<a href="#">24545 - INTRODUCTION TO METEOROLOGY</a>
4	OPTIONAL	6	<a href="#">24546 - GEOGRAPHICAL PLANNING AND MANAGEMENT OF TOURIST COASTAL AREAS</a>
4	OPTIONAL	6	<a href="#">24547 - MARINE AND COASTAL LANDSCAPE ASSESSMENT AND ENVIRONMENTAL IMPACT</a>

Superado este bloque se obtiene  
**ROUTE 2: MARINE AND COASTAL ENVIRONMENT**

## AIMS

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The aim of the Degree in Marine Sciences is to produce professionals capable of:

- carrying out research in the different areas of the marine sciences;
- providing the authorities and businesses with advice and consultancy on marine resources, environmental issues, environmental impact and other matters within the scope of their competence;
- training future scientists and technicians.

Accordingly, the Degree in Marine Sciences qualifies graduates to work in all areas related with the marine sciences, including scientific and technical development, using both basic and applied approaches.

This degree also qualifies future graduates to work in oceanography, at both basic and applied levels in a range of environments.



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

## CREDIT STRUCTURE OF THE DEGREE COURSE

Subjects on the Degree Course in Marine Sciences, each worth 6 European ECTS credits, are organised into semesters. Students are required to take 5 subjects each semester, to complete 30 credits per semester and 60 credits per year, for a total of 240 credits over four years.

In order to make the course compatible with other activities, students are allowed to take a part-time degree consisting of 30 credits per academic year.

## DISTRIBUTION OF CREDITS PER SUBJECT TYPE

Subject type	Credits
Core	60
Compulsory	132
Optional	30
Work experience (obligatory)	0
Final Project	18
<b>Total credits</b>	<b>240</b>

## GENERAL DESCRIPTION OF THE COURSE PROGRAMME

The Course Programme is divided into four modules: Core, Compulsory, Complementary and Optional

**a) Core Module:** The core module is taken in the first year and is worth 60 credits. 42 of these form core courses in the area of the Sciences, including the disciplines of Mathematics, Physics, Chemistry, Biology and Geology, whilst 12 form core courses in the area of the Health Sciences, and comprise the disciplines Biochemistry and Statistics. In addition, the compulsory cross-disciplinary core course, "Introduction to Research in Marine Sciences", is worth 6 credits (T) and is aimed at enabling students to acquire practical proficiency in searching for and handling biological information, cross-disciplinary skills such as IT, oral and written communication and reading documents in English (priority cross-disciplinary skills at the University of Alicante), and teamwork. The courses described comprise a total of 10 subjects, each worth 6 credits. Core courses in the area of the Sciences are taught in the first year, with Mathematics, Physics, Chemistry, Biology and Geology being taught in the first semester (30 ECTS). In the second semester, core courses in the area of the Health Sciences (Genetics, Biochemistry, Cell Biology and Statistics 24 ECTS) , together with a cross-disciplinary subject (6 ECTS).

**b) Compulsory Module** The Compulsory Module is taught in the second, third and fourth years (semesters 4-8). The module is divided into 10 courses, with a total of 19 subjects.

- Four courses are shared with the Degree in Biology (worth a total of 36 ECTS). These are Zoology (12 ECTS), Botany (12), Ecology (6), and Microbiology (6).
- Six courses specific to the area of Marine Sciences ( worth a total of 90 credits), which include Biological Oceanography (18), Physical Oceanography (12), Marine Geology (12), Marine Chemistry (18), Applied Statistics (6) and Applied Marine Sciences (24).

All subjects are worth 6 credits and comprise the theoretical and practical contents of each course. Credits for practicals (laboratory, sea, computer, etc) are allocated differently for each of the 10 courses.

**c) Complementary Module:** this module comprises the subject, "Marine Sciences Projects" and is worth 6 ECTS. It reflects the recommendation that professionals in any branch of the Sciences, and especially those undertaking projects, should have taken a subject concerning projects.

**d) Optional Module:** The Optional Module consists of three optional course routes:

- i) **Marine Resources** route;
- ii) **Marine and Coastal Environment** route; and
- iii) optional courses not ascribed to any route.

These three courses, each worth 24 ECTS, comprise a total offer of 12 optional subjects, including Work Experience, each worth 6 credits. The optional courses mainly comprise applied subjects and are aimed at complementing the education of future graduates by offering an insight into the Marine Sciences as applied to different fields. Students may choose four optional subjects from either route plus one subject from among those not ascribed to either in order to complete the 30 optional credits. Another possibility is not to choose either route and simply take those subjects they consider of most interest.

8 subjects are offered in semester 7, of which students must choose 4, whilst in semester 8 students must choose one subject from among the 3 offered. The subject, "Work Experience" may be undertaken by students during either of these two semesters. Subjects will be assigned to semesters 7 and 8 on an annual rotation basis. In semester 8, students are required to take the compulsory course 'Marine Sciences Projects', worth 6 credits, and carry out their Final Project, worth 18 credits.

**Work Experience:** Work experience is worth up to 6 optional credits. A framework collaboration agreement has been reached between the University and a series of companies and institutions, offering students the possibility of working in companies and public and private institutions in the field of Marine Sciences, providing them with a first contact with the working world and increasing their employment prospects.

The Course Programme proposes the following optional work experience modalities:

- Work experience unrelated to the Final Project: Successfully completed work experience projects are worth a total of 6 optional credits.
- Work experience related to the Final Project: 6 optional credits may be taken as work experience, after which students may continue with one or two practical blocks from the Final Project, totalling a maximum of 18 ECTS.

In this regard, students may take up to 12 work experience credits related exclusively to the practical blocks of the Final Project. In this case, the Degree Supplement will specify that work experience has comprised part of the student's Final Project.

Moreover, as specified below, students may complete or extend their work experience period providing the work undertaken can be used in the Final Project.

**Final Project:** The Final Project, which is the final phase of the Course Programme, is worth a total of 18 ECTS credits, in compliance with the requirements of a possible Eurobachelor in Marine Sciences. The Final Project is divided into three blocks, each worth 6 ECTS. Two of these blocks are practical, while the other is written. Within the two practical blocks, students may carry out a range of activities, including work at sea (*practicum*), data collection and analysis, bibliographical research, laboratory investigation, etc. Before evaluation their final projects, students must show academic certification verifying fluency in a foreign language to B1 level.

## OPTIONAL SUBJECTS AND ROUTES

Students may choose four optional subjects from either route and one subject not ascribed to either in order to complete the 30 optional credits. Another possibility is not to choose either route and simply take the assignments they consider of most interest. 8 subjects are offered in semester 7, of which students must choose 4, whilst in semester 8 students must choose one subject from among the 3 offered.

Work Experience may be undertaken by students during either of these two semesters. Subjects will be assigned to semesters 7 and 8 on an annual rotation basis.

ROUTE	TYPE	ECTS
<b>MARINE RESOURCES</b>		
SEA WATER ENGINEERING	OP	6
MANAGEMENT AND PRESERVATION OF LIVE MARINE RESOURCES	OP	6
APPLIED PLANKTOLOGY AND MARINE MICROPALAEONTOLOGY	OP	6
MARINE MINERAL RESOURCES	OP	6
<b>MARINE AND COASTAL ENVIRONMENT</b>		
COASTAL AND OCEANIC ENGINEERING	OP	6
INTRODUCTION TO METEOROLOGY	OP	6
PLANNING AND MANAGEMENT OF THE TOURIST COAST	OP	6

ASSESSING THE MARINE AND COASTAL LANDSCAPE AND EVALUATING ENVIRONMENTAL IMPACTS	OP	6
<b>NON-ROUTE SUBJECTS</b>		
GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING	OP	6
SCIENTIFIC DIVING	OP	6
SYSTEMS ANALYSIS	OP	6
WORK EXPERIENCE	OP	6



### 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.

[+info](#)

### 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**.

[+info](#)

### 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															
	0,2		X					X			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 Years 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
2013-14	0.2		x							x									x	x			
2014-15																							
Academic Year 2015-16	0.1								x														x
2016-17	0.2		x	x						x									x	x			

## 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 Marine Sciences have a basic scientific-technical and health sciences education, and should have studied, at least, the subjects Biology and Chemistry in their second year of the high school diploma course. They should also have some knowledge of Earth Sciences, Mathematics II and Physics, in addition to showing awareness of environmental problems.

Among the qualities the future Biology student should possess, the following are of especial relevance:

- Capacity for work (perseverance, method and rigour).
- Capacity for reasoning and critical analysis.
- Scientific spirit.
- Capacity to obtain, interpret and apply knowledge.
- Problem-solving skills.
- Capacity for synthesis and abstraction.
- Recommended complementary education: English and user-level computing skills.

## 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	8,805	7,820	---	---	6,020	---	---

2011-12	50	8,843	8,655	---	---	7,930	---	---
2012-13	50	9,678	6,640	---	---	7,480	---	5,000
2013-14	50	9,000	5,000	---	---	6,280	---	---
2014-15	50	9,444	5,000	---	---	5,000	---	---
2015-16	50	9,619	7,262	---	---	7,250	---	---
2016-17	50	9,920	5,000	---	---	7,850	---	5,000
2017-18	50	9,650	5,000	---	---	5,000	5,000	5,000

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

## PROFESSIONAL PROFILES

**Professions for which the degree qualifies its holder:** Oceanographer, Marine Scientist.

These professional profiles have been drawn up from information obtained from graduates and employers, as well as from the professional experience of the project work group and the University community, as set down in the White Paper. On the basis of this information, along with further information obtained from the Official State Gazette (BOE), CSIC and documents from Associations of Marine Sciences Graduates, the Degree has been designed to be as broad-based as possible, having as its fundamental aims those of providing graduates with a basic and applied knowledge in Marine Sciences and preparing them for professional practice, based essentially on five professional profiles with their respective professional scopes which are representative of a Degree in Marine Sciences..

There are career opportunities for graduates in Marine Sciences in all sectors, from the primary sector to the industrial and service sectors, and including education and research. To meet the demand from businesses and institutions, the following profiles have been established:

- **Professional profile:** Graduates should possess the necessary training required by companies in the primary sector (fishing and aquaculture, oceanography), industry, services and the administration (preservation, environmental impact, biomarkers, coastal planning and management, etc.). In the field of business, graduates may work as oceanographers but also fulfil executive and management roles in Marine Sciences-related areas.

- **Teaching and research:** Some graduates find careers in teaching. Under the current system, graduates are required to complete their training with a Master's Degree in Education in order to work as Secondary School Teachers. However, the Degree in Marine Sciences is designed to provide graduates with the necessary skills for this function. Moreover, research in certain scientific fields is becoming increasingly important, both in public centres (Universities, CSIC, OPIS, etc.) and in companies with research departments.

On this basis and in accordance with sources consulted, the following general aims have been established for the University of Alicante Degree in Marine Sciences:

- Provide students with a scientific and technical training in line with current scientific methodologies, along with the knowledge and skills to their specialization in Marine Sciences or other multidisciplinary areas.
- Involve students in the learning of Marine Science, enabling them to assess their theoretical and practical aspects and train them for professional work.
- Provide knowledge acquisition, both basic and applied to the marine environment, practical skills and attitudes for professional practice.
- Generate in students the ability to assess the importance of marine science in the context of environmental, economic and social.
- Getting graduates adequately manage scientific and technical information, to produce technical reports and scientific papers and defend to an audience.
- To train graduates for their integration in the labor market, in areas related to the responsibilities of the degree.

Summary of professional profiles and skills of Graduates in Marine Sciences:

Professional profile	Skills
<b>Marine Resources</b>	<ul style="list-style-type: none"> <li>• Inventory, census and monitoring of marine life forms</li> <li>• Detection and control of diseases among marine species</li> <li>• Preservation and transformation of marine foodstuffs and other products of interest</li> <li>• Sustainable management of renewable and non-renewable resources</li> <li>• Fishing evaluation and management</li> <li>• Advisory services for zoos, museums and other scientific and cultural facilities related to the marine environment</li> <li>• Recovery of marine species</li> </ul>
<b>Oceanography</b>	<ul style="list-style-type: none"> <li>• Exploring and modelling physical, chemical, geological and biological processes in the oceans</li> </ul>

	<ul style="list-style-type: none"> <li>• Atmosphere-ocean interaction.</li> <li>• Global climate change</li> <li>• Multi-and inter-disciplinary studies of ocean processes over a range of space and time scale</li> <li>• Design and development of oceanographic campaigns and experiments</li> </ul>
<b>Management and planning of marine and coastal environments</b>	<ul style="list-style-type: none"> <li>• Planning and preservation of coastal areas</li> <li>• Design of marine infrastructure projects</li> <li>• Management of natural spaces and protected marine areas</li> <li>• Consultancy in matters of environmental legislation</li> <li>• Environmental impact studies and assessment</li> <li>• Restoration of coastal and marine spaces</li> <li>• Assessment and monitoring of compliance with marine and coastal environmental standards applicable to industr</li> <li>• Marine pollution, water quality and sediments</li> </ul>
<b>Teaching and research</b>	<ul style="list-style-type: none"> <li>• Teaching at different levels, organising social awareness campaigns, dissemination, etc.</li> <li>• Design, preparation and teaching of courses on the marine environment to businesses and the authorities</li> <li>• Management of marine-related leisure and tourist activities</li> <li>• Capacity to undertake scientific studies in a range of oceanographic field</li> <li>• Research at universities and private and public research bodies</li> </ul>
<b>Administration and business</b>	<ul style="list-style-type: none"> <li>• Technical assistance and technical reports for businesses</li> <li>• Improvement plans for industries related to the marine environment</li> <li>• Technicians at all levels (European, national, regional, local) of the authorities dealing with marine and coastal environments</li> </ul>

**IMPLEMENTATION****Timescale for the implementation of the new Degree in Marine Sciences**

<b>Academic Year</b>	<b>Implementation of the new Degree in Marine Sciences (Grado)</b>	<b>Phasing out of the former Degree in Marine Sciences (Licenciatura)</b>
2010-2011	1 <sup>st</sup> Year	--
2011-2012	2 <sup>nd</sup> Year	--
2012-2013	3 <sup>rd</sup> Year	--
2013-2014	4 <sup>th</sup> Year	4 <sup>th</sup> Year
2014-2015	-	5 <sup>th</sup> Year

\* This refers to the course no longer being taught. However, students are entitled to sit two annual exams in the two years following the implementation of the new Degree course (grado) in the corresponding course.

**CREDIT EQUIVALENCE BETWEEN THE CURRENT PROGRAMME AND THE NEW DEGREE IN MARINE SCIENCES**

Former degree in Marine Sciences (Licenciatura)	New degree in Marine Sciences (Grado)
Aquaculture (9 credits)	Aquaculture (6 credits)
Systems Analysis (6 credits)	Systems Analysis (6 credits)
Scientific Diving (7.5 credits)	Scientific Diving (7.5 credits)
Marine biology (9 credits)	Marine biology (6 credits)
Marine ecology (9 credits)	Marine ecology (6 credits)
Economics of Marine Resources (4.5 credits)	Projects (6 credits)
Legislation (4.5 credits)	
Applied Statistics (9 credits)	Statistics applied to Marine Resources (6 credits)
Exploitation of Live Marine Resources (4.5 credits)	Fisheries biology (6 credits)
Biology of Exploitable Marine Species (6 credits)	
Marine Geophysics and Geology (9 credits)	Geological oceanography (6 credits)
Geographical Management of the Tourist Coast (6 credits)	Tourist Coast Planning and Management (6 credits)
Evaluating Environmental Impacts (6 credits)	Evaluation of the Coastal landscape and Environmental Impacts (6 credits)
Evaluation of Coastal and Marine Landscapes (6 credits)	
Sea Water Engineering (6 credits)	Sea Water Engineering (6 credits)
Coastal Engineering (4.5 credits)	Coastal and Oceanic Engineering (6 credits)
Marine Facilities (4.5 credits)	
The Marine Environment and Pollution (18 credits)	Marine Pollution (6 credits)
The Marine Environment and Pollution (9 credits)	Biological Oceanography (6 credits)
Oceanographic Methods and Techniques (3 credits)	
Navigation and Location (7.5 credits)	GIS and Remote Sensing (6 credits)
Physical Oceanography (6 credits)	Physical Oceanography (6 credits)
Chemical Oceanography (6 credits)	Chemical Oceanography (6 credits)
Management and Preservation of Live Marine Resources (7.5 credits)	Management and Preservation of Live Marine Resources (6 credits)
Planning and Management of the Coast and Marine Environment (7.5 credits)	Management of the Coast (6 credits)
Mineral Marine Resources (4.5 credits)	Marine Mineral Resources (6 credits)
Economic Geology of Marine Resources (6 credits)	
Restoring the Coast (6 credits)	Sedimentology (6 credits)
The Marine Environment and Pollution (18 credits)	

Two routes for credit equivalence recognition have been established, both requiring application by the interested party and subject to approval by the Commission for Credit Recognition and Transfer and Assessment of Academic Records.

**Individual equivalences by subject:**

The above Table details credit equivalence for credits taken on *the former Degree in Marine Sciences (Licenciatura)Grado* in Marine Sciences at the University of Alicante, and the new Degree (.



For students transferring from other centres, the Commission for Credit Recognition and Transfer and Assessment of Academic Records will consider the case, on the basis of the above Table of Credit Equivalence

**Equivalence recognition by subject blocks:**

1. Students who have successfully completed the first year of the Degree in Biology or Chemistry (Degree courses currently offered in the Faculty of Sciences at the University of Alicante) will be considered as having passed the first year of the new Degree (*Grado*). This in addition to the application of the credit equivalences listed in the above Table for subjects corresponding to the remaining academic years.
2. Any core, compulsory and optional subjects taken by students on the current Degree (*Licenciatura*) programme in Marine Sciences which do not have direct equivalence with subjects on the new Degree (*Grado*) course, will be given credit equivalence as Optional credits.
3. Any other equivalence recognition requested will be considered by the Commission for Credit Recognition and Equivalence, in accordance with current legislation.

**Correspondence between degree courses in the Faculty of Sciences at the UA:**

As detailed in the report, the Faculty of Sciences at the University of Alicante has proposed 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, it has been agreed that recognition will be given to all credits obtained in their first year of study for students joining the Degree in Marine Sciences from other Science Faculty degree programmes, whether or not they are from the Sciences.

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 MARINE STUDIES. SYLLABUS SUMMARY

ESTRUCTURA DEL PLAN DE ESTUDIOS POR TIPO DE MATERIA

TIPO DE MATERIA	CRÉDITOS
Formación básica (FB)	60
Obligatorias (OB)	132
Optativas incluidas	30
Prácticas Externas (OP)	18
Trabajo Fin de Grado	18
<b>Total créditos</b>	<b>240</b>

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
Química 6 ECTS	Genética 6 ECTS	Fundamentos de la Zoología 6 ECTS	Zoología Marina 6 ECTS	Ecología Marina 6 ECTS	Oceanografía Biológica 6 ECTS	Biología Pesquera 6 ECTS	Proyectos en Ciencias del Mar 6 ECTS
Fundamentos de Matemáticas 6 ECTS	Bioquímica 6 ECTS	Fundamentos de la Botánica 6 ECTS	Botánica Marina 6 ECTS	Geología Marina 6 ECTS	Oceanografía Física 6 ECTS	Asignatura Optativa <sup>(2)</sup> 6 ECTS	Trabajo Fin de Grado <sup>(1)</sup> 18 ECTS
Fundamentos de la Biología 6 ECTS	Biología Celular 6 ECTS	Microbiología 6 ECTS	Ecología 6 ECTS	Oceanografía Química 6 ECTS	Acuicultura 6 ECTS	Asignatura Optativa <sup>(2)</sup> 6 ECTS	
Física 6 ECTS	Estadística 6 ECTS	Química de las Disoluciones 6 ECTS	Sedimentología 6 ECTS	Estadística Aplicada a los Recursos Marinos 6 ECTS	Ordenación del Litoral 6 ECTS	Asignatura Optativa <sup>(2)</sup> 6 ECTS	
Geología 6 ECTS	Iniciación a las Ciencias del Mar 6 ECTS	Mecánica de Fluidos y Ondas 6 ECTS	Biología Marina 6 ECTS	Contaminación Marina 6 ECTS	Biotecnología Marina 6 ECTS	Asignatura Optativa <sup>(2)</sup> 6 ECTS	Asignatura Optativa <sup>(2)</sup> 6 ECTS

<sup>(1)</sup> El/la alumno/a deberá acreditar, previamente a la evaluación del Trabajo Fin de Grado, conocimientos de un idioma extranjero a nivel B1 del Marco de Referencia Europeo para las lenguas modernas, mediante certificación académica. El/la alumno/a podrá realizar hasta 12 créditos de prácticas externas ligadas exclusivamente a los bloques experimentales del Trabajo de Fin de Grado. En este caso el Suplemento al Título especificará que el/la alumno/a ha realizado parte del Trabajo de Fin de Grado mediante prácticas externas.

<sup>(2)</sup> El grado en Ciencias del Mar consta de dos itinerarios: **Itinerario Recursos Marinos**, y **Itinerario Medio Ambiente Marino y Litoral**. El alumnado puede elegir cursar cuatro asignaturas **optativas** de uno u otro itinerario y una de las no adscritas a itinerario para completar los 30 créditos optativos; o bien, no escoger itinerario y realizar aquellas que considere más atractivas para su formación. La asignatura "Prácticas Externas" puede ser cursada por el/la estudiante en cualquiera de los dos semestres.

ITINERARIO: RECURSOS MARINOS		ITINERARIO: MEDIO AMBIENTE MARINO Y LITORAL		ASIGNATURAS OPTATIVAS FUERA DE ITINERARIO	
Ingeniería del Aprovechamiento del Agua del Mar	6 ECTS	Ingeniería Costera y Oceánica	6 ECTS	Sistemas de Información Geográfica y Teledetección	6 ECTS
Ordenación y Conservación de los Recursos Vivos Marinos	6 ECTS	Introducción a la Meteorología	6 ECTS	Buceo Científico	6 ECTS
Planctología Aplicada y Micropaleontología Marina	6 ECTS	Planificación y Gestión Geográfica del Espacio Turístico Litoral	6 ECTS	Análisis de Sistemas	6 ECTS
Recursos Minerales Marinos	6 ECTS	Valoración del Paisaje Marino y Litoral y Evaluación del Impacto Ambiental	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

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- [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

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