

Facultade de Bioloxía
Universidade de Vigo

Faculty of Biology

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~ FACULTY OF BIOLOGY ~

The Faculty of Biology of the University of Vigo is a young institution where studies in Biology are taught since 1990, the date when the University of Vigo was founded. At the beginning, the Faculty taught the undergraduate studies in Biology, carried out by 17 graduate promotions. Since 2009 and following the guidelines of the European Higher Education Area (EHEA), the Degree in Biology has been taught. Currently, this degree is fully consolidated and has a high social demand. The Faculty also offers many master's degrees that are complemented by a variety of PhD programmes in biology offered by the University of Vigo.

Located in the *As Lagoas-Marcosende* University Campus, in the city of Vigo, the Faculty of Biology has modern infrastructures and technologies in experimental classrooms and laboratories. It has a great teachers staff, most of them doctors, who make research an excellent complement to teaching.

Our faculty has a quality seal awarded by the Agency for the Quality of the Galician University System due to the implementation of the Internal Quality Assurance System.



Centro certificado
FIDES-AUDIT

Departments assigned to the Faculty

- Department of Functional Biology and Health Sciences
- Department of Plan Biology and Soil Sciences
- Department of Biochemistry, Genetics and Immunology

External departments that collaborate with teaching

- Department of Ecology and Animal Biology
- Department of Applied Physics
- Department of Organic Chemistry
- Department of Analytic and Food Chemistry
- Department of Marine Geosciences and Territorial Planning
- Department of Biostatistics and Operational Research
- Department of Mathematics
- Department of Engineering Design

Brief description of the degree

Area: scientific
Duration: 4 years

Credits ECTS: 240
Vacancies: 75 for the 1st year

Year	1st year	
	1st semester	2nd semester
2nd year	1st semester	2nd semester
	1st semester	2nd semester
3rd year	1st semester	2nd semester
	1st semester	2nd semester
4th year	1st semester	2nd semester
	1st semester	2nd semester

Evolution
Physics of the biological processes
Geology
Mathematics applied to biology
Chemistry applied to biology

Biostatistics
Computer tools in biology
Soil, aquatic environment and climate
Basic field techniques
Basic laboratory techniques

Biochemistry I
Botany I: algae and fungi
Animal and plant cytology and histology I
Microbiology I
Zoology I: invertebrates non arthropods

Biochemistry II
Botany II: archegonia
Animal and plant cytology and histology II
Genetics I
Zoology II: invertebrates arthropods and chordates

Ecology I
Animal physiology I
Plant physiology I
Genetics II
Immunology and parasitology

Ecology II
Animal physiology II
Plant physiology II
Microbiology II
Techniques in cellular and molecular biology

Mention: Biology applied to health
Clinical biochemistry and immunology
Integrative cell biology and physiology: implications for health
Human genetics and molecular pathology
Sanitary microbiology and parasitology

Mention: Biology applied to production
Agri-food analysis and diagnosis
Biotechnology applied to animal production
Biotechnology applied to plant production
Biotechnology applied to microbial production

Mention: Biology applied to the environment
Environmental analysis and diagnosis
Biodiversity: management and y conservation
Environmental impact evaluation
Management and conservation of spaces

General elective subject
Quality management and control

General elective subjects
Bioinformatics
Pollution
External Internships

Project and end of degree project
Drafting and execution of projects
End of degree project

■ Specialized education in Biology

The Degree in Biology provides a specialized and focused education on the study of living beings and their relationship with the environment where they live. It is oriented to practice the profession of biologist.

The students of the Degree acquire the necessary knowledge to recognise and identify living organisms, their levels of organization and biological diversity: the concept and origin of life, the chemical structure of living organisms, genetics and mechanism of inheritance, biodiversity and evolution. Students learn to recognise and identify the functions of organisms and mechanisms related to metabolism, cell signalling and those that allow the regulation and integration of physiological processes.

In addition, students are able to identify and understand the processes of adaptation of living beings to their environment, including physical media, the structure and dynamics of populations and communities and the exchange of substances and energy. Finally, they learn to use statistical and computer tools and they develop the capacity for critical analysis and reasoning through the approach of solving problems and cases with a biological basis. Throughout their studies, students promote their ability to present their work, task organization and collaborative work.

■ Research and professional guidance

The degree of Biology allows students to learn in a practical area, where they apply the acquired knowledge to fields where they normally develop their professional activity: health (biomedicine), industry and productive services (biotechnology), new technologies (bioinformatics), environment (biodiversity and environmental management and control) and quality control processes.

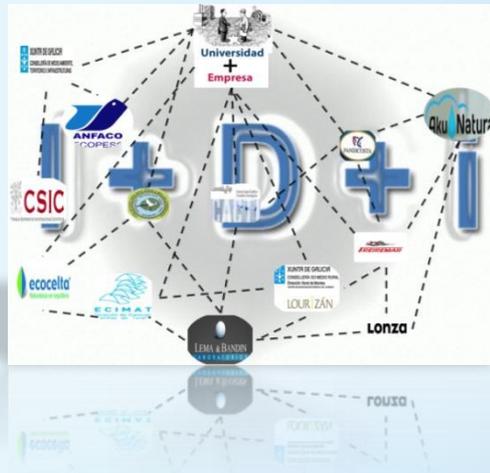
The oriented education facilitates the labour integration of the biologist who works and researches in strategic sectors and with a great social projection. The broad basic and updated education of the biologist also allows his dedication to research tasks, scientific dissemination and related to education and teaching.

■ External Internships

External curricular internships are aimed at completing and strengthening the competences associated with the degree. They are carried out in a labour and real professional area related to some of the fields of biology, under the supervision of a tutor in the collaborative entity and an academic tutor in the Faculty of Biology. This subject, which is optional, provides a vision of the profession of biologist to students, allowing direct contact between the faculty and the professional environment.

The faculty also offers the possibility of extracurricular external internships, similar to curricular internships, but in an out-of-school time. Students, with these internships, can supplement their training in companies of their interest related to the degree.

Nowadays, there are agreements with more than 90 companies, institutions and public and private organisms in the different areas where the profession of biologist is certified.



■ End-of-degree Project

The purpose of the “**End-of-degree Project**” is for students to implement the knowledge, skills and abilities acquired throughout their academic education.

The subject End-of-degree Project implies the execution of an individual project related to some of the multiple areas of the biologist’s labour environment, always under the supervision of an academic tutor.

This subject is done in laboratories of the Faculty or in companies and other external institutions. The students present their final project through a written memory that they defend orally in front of the examining board.



■ Students support and guidance

The Faculty has fully implemented a Tutorial action plan that calls on all students for the constant support of an academic tutor who guides and advises them during their stay at the centre.



Postgraduate Studies

To complete the education of graduate students, the Faculty of Biology has a wide range of postgraduate studies. Likewise, these titles allow to update and improve the education of professionals working in the area of Biological Sciences.



Students receive an advanced education, either for their insertion in the labour market or for their access to a PhD programme.

Nowadays, the Faculty of Biology has 7 official master's degrees that include a wide variety of contents that complement the education of a specialized biologist. In addition, it offers a master's degree in teaching training that prepares for the performance of the teaching function in secondary and vocational education.



▪ **Master's degree in Advanced Biotechnology**

Interuniversity Master's degree (UVI-UDC)

It provides students with an advanced education in Biotechnology, with a multidisciplinary and specialised character. The objective is twofold: on the one hand, it prepares professional for the biotechnology industry and/or updates and improves the knowledge of professionals working in this area; on the other hand, it prepares new researchers to join research teams in public centres and companies.

<http://masterbiotecnologiaavanzada.com/>

Nº of vacancies: 30 (15 in UVI and 15 in UDC)

Type of teaching: *face-to-face*

Regularity of the offer: *annual*

Duration: 90 ECTS

▪ **Master's degree in Marine Biology**

Interuniversity Master's degree (UVI- UDC- USC)

In its professional orientation, the master seeks the training of new specialists and the updating of professionals in the sector, in evaluation, management and the correct exploitation of living marine resources to ensure their economic, biological and environmental sustainability. In its academic orientation, it studies the training of teaching and research staff in the field of Marine Biology. The external internships in institutions and companies are oriented to the labour preferences of the students and constitute a professional stimulus with a proven added value.

<http://masterbiologiamarina.uvigo.es/>

Nº of vacancies : 30 (10 in UVI, 10 in USC and 10 in UDC)

Type of teaching: *face-to-face*

Regularity of the offer: *annual*

Duration: 90 ECTS

■ *Master's degree in Aquaculture*

Interuniversity Master's degree (UVI- USC- UDC)

It provides students with an advanced, specific and multidisciplinary education aimed at an academic, research and professional education in Aquaculture. Students acquire knowledge, skills and abilities that will allow them to design and carry out research in the field of aquaculture, manage and control the continental and marine facilities, assess their environmental impact and respond to the I+D+i needs of the sector through the implementation of strategies for the future development of the industry.

<http://www.usc.es/macucg/>

Nº of vacancies: 30 (10 in UVI, 10 in UDC and 10 in USC)

Type of teaching: *face-to-face*

Regularity of the offer: *annual*

Duration: 90 ECTS

■ *Master's degree in Neuroscience*

Interuniversity Master's degree (UVI- USC- UDC)

The Master's degree in Neuroscience hopes to prepare researchers who collaborate in the future to solve a large number of diseases related to the nervous system.

It is an interdisciplinary master that contemplates a basic and a clinical speciality. The first is oriented to the understanding of the function of the nervous system. The second is oriented to the investigation of pathologies of the system such as Parkinson's and Alzheimer's among others.

http://www.usc.es/gl/titulacions/masters_oficiais/neurosci/

Nº of vacancies : 50 (10 in UVI, 30 in USC and 10 in UDC)

Type of teaching: *face-to-face*

Regularity of the offer: *annual*

Duration: 120 ECTS

■ *Master's degree in Genomics and Genetics*

Interuniversity Master's degree (UVI- USC)

It contributes to the knowledge for the development of new biotechnological products, new drugs, the improvement of human and animal health, the conservation and management of plants and animals, the control of parasites and microorganisms, as well as the understanding of the past and present evolutionary processes that involve all living organisms.

<http://www.usc.es/masteres/es/masteres/ciencias-salud/genomica-genetica>

Nº of vacancies: 30 (20 *presencial modality 10 semipresencial*)

Type of teaching: *face-to-face and semi-face*

Regularity of the offer: *annual*

Duration: 60 ECTS

■ *Master's degree in Terrestrial Biodiversity: characterization, conservation and management*

Interuniversity Master's degree (UVI- USC-UDC)

It provides to students with advanced training in Biodiversity, Conservation and Management of the Natural Environment.

The aim is to train professionals for companies of Environmental Consulting, Environmental Companies and Administrations and to improve the knowledge of the professionals already dedicated to this activity. Besides new researchers are trained to incorporate into research teams of public centres and companies related to the characterization, conservation and management of terrestrial biodiversity.



Nº of vacancies : 30 (10 in UVI, 10 in USC and 10 in UDC)

Type of teaching: *face-to-face*

Regularity of the offer: *annual*

Duration: 90 ECTS

<http://www.usc.es/masteres/es/masteres/ciencias/biodiversidad-terrestre-caracterizacion-conservacion-gestion>



▪ **Master's degree in Teaching Training in ESO, Baccalaureate, Vocational Education and Language Education**

Master's degree (UVI)

Its mission is to educate professionals capable of developing their work in the fields of guidance and teaching.

It is a necessary degree to be high school, A levels and vocational education teacher in both public and private centres.

<http://mpe.uvigo.es/index.php?lang=es>



PhD Studies

PhD studies are the final step of academic education and lead to obtaining a doctor degree.

The educational structure of the PhD programmes includes the completion of courses and a stage of research where the student develops the doctoral thesis.

At the University of Vigo, PhD programmes depend on the administration of the International Doctoral School, but they maintain a strong connection with the centres where educational and research activities are carried out.

Nowadays, different PhD programmes maintain a tight link with the Faculty of Biology, all of them with a strong orientation to the investigation of processes related to biology and its use.



- ***Advanced Biotechnology***
- ***Methodology and Applications in Sciences of Life***
- ***Neuroscience and Clinical Psychology***
- ***Endocrinology***
- ***Nanomedicine***
- ***Marine Sciences, Technology and Management (*of the Sea)***

Research Activity

Research is an important activity in the Faculty of Biology. The research activity is carried out by different Research Groups where the researches working in different areas of biology are integrated.

The Faculty has laboratories for different specialities that are supplied with modern scientific-technological equipment that makes high level research possible. In addition, the research groups established in the faculty have the scientific support of other centres of the University of Vigo, such as the Scientific and Technological Research Assistance Centre (CACTI), Marine Science Station of Toralla (ECIMAT) and the Biomedical Research Centre (CINBIO). That is why students who access the Faculty of Biology are integrated into a scientific space where excellent research is carried out with great national and international projection.



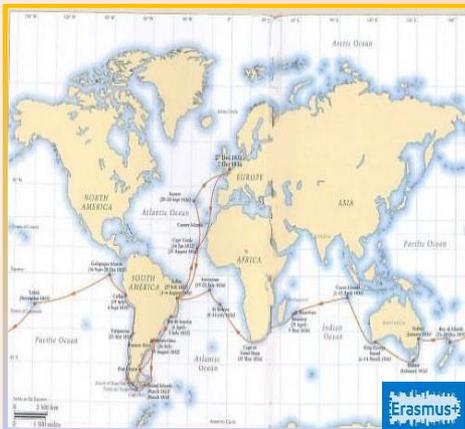
Mobility Programmes

Erasmus plus:

It consists in the completion of a study period (one semester or one full year) in a university in another European country with full academic recognition of the studies carried out.

Erasmus internships:

Performing a period of internship (between 3 and 12 months) in companies, educational centres, research centres and other organizations in another European country.



SICUE:

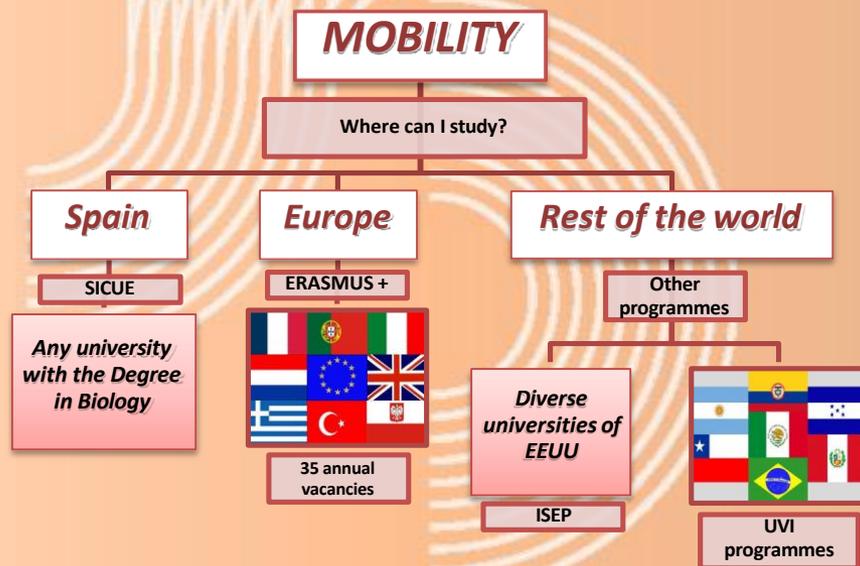
Mobility programme between Spanish university centres. It allows the realization of a period of study (a semester or a full year) in another Spanish university with full academic recognition.



One of the priorities of the Faculty of Biology is to promote mobility of our students. This means that the faculty participates actively in official mobility programmes, essentially in the field of SICUE and Erasmus programmes.

For the SICUE programme, the management work in the Faculty is in charge of the Vice-dean of External Relations. Students who adopt this programme have to sign an academic agreement where the subjects that the students will have at the destination university and the subjects of the University of Vigo that will be recognised will be established.

In the case of the Erasmus programme, the general management of the programme is carried out by the Office of International Relations (ORI), in collaboration with the Vice-dean of External Relations. Students who accept this programme have to sign the learning agreement before initiating the exchange. This agreement establish the subjects the student will have at the university of destination and the subjects of the university of Vigo that will be recognised.



Teaching facilities and services

~ FACULTY OF BIOLOGY ~



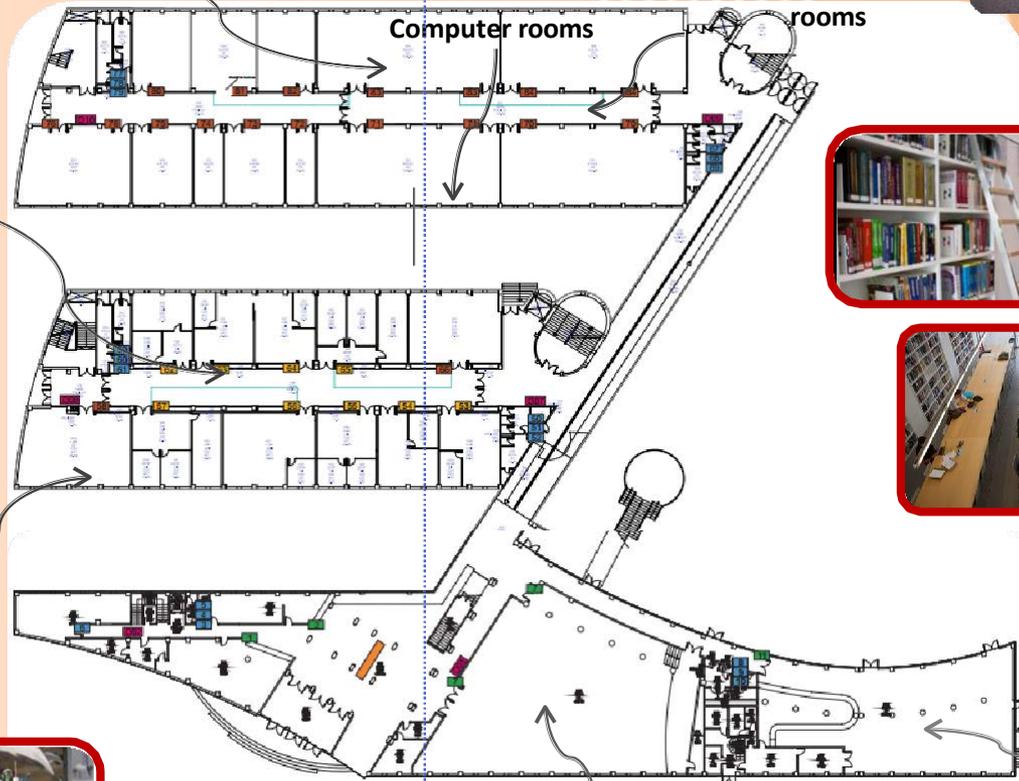
Teaching classrooms with projection equipment



Video conference rooms



Teaching laboratories equipped for each area of knowledge



Updated library with a modern reading and study room



Research laboratories of different specialities



Cafeteria and dining room in the centre



WiFi connection in the whole building



Assembly hall for more than 300 people