

M.Sc. Biological Sciences

University of Vigo

The main goal of the Master in Biological Sciences (MBS) is to provide graduate students with **practical knowledge to take on top science-based positions** in Health and Environmental Sciences, Computational Biology and Biotechnology.

The **official language of the MBS is English**. Non-English speaking students must demonstrate a minimum of English proficiency (by holding a B1 certificate or through an oral interview). MBS aims to become an International Master Programme and to attract students of different nationalities.

MBS comprises **120 credits** in total distributed between **two academic years** (60 ECTS each one) and provides direct access to two PhD Programmes of Excellence, covering a wide range of specialised fields.

Year 1	Basic Module 12 ECTS	Elective Module 42 ECTS	External Practicum 6 ECTS
Year 2	Mandatory Major Project: 48 ECTS		Master's Thesis 12 ECTS

During the Elective Module students will have the **opportunity to follow specific tracks** in more specialised areas of biomedicine, bioinformatics, environmental conservation and management as well as in any other R&D related aspect.

Basic Module
1. Scientific Literature and Writing in Biological Sciences
2. Experimental Design and Data Analyses
3. Scientific Methodology for Biological Studies
4. Data cleaning and manipulation

Elective Module
Track 1: Molecular Biology for Health and Life Sciences
Genetic engineering
Genomics and gene expression
Infection and immunity
Molecular pathology and biomarkers
Biomedical applications of nanotechnology
Proteomics: from protein sequence to function
Reproductive and developmental biology
Track 2. Environmental Sciences
Biodiversity
Population ecology and ecosystem complexity
Pollution, bioindication and bioremediation
Global change and adaptation
Conservation and natural resource management
Sustainable development
Restoration and environmental policy
Track 3. Bioinformatics and Computational Biology
Programming for bioinformatics
Statistical and mathematical methods in bioinformatics
Knowledge discovery
Computational genomics
Molecular evolution
Structural biology
Systems biology
Track 4. Green-Industries Management
Introduction to bioindustries management and business development in life sciences
Bioindustries marketing and commercial management
Financial and global bio-industries business
Human resources management and leadership
Operations and quality in bio-industries
Innovation, R&D management and intellectual property in bioindustries
Entrepreneurship and professional career development

MBS OUTCOMES:

- **Academic-Research Profile:** for those students intending to become researchers and R&D agents in Research Centres, laboratories, National Parks and Universities.
- **Professional Profile:** for those students aiming to perform independent industry-orientated tasks in Life Sciences.

REGISTRATION FOR ACADEMIC YEAR 2014-15

- First pre-registration period: June-July, 2014
- Second pre-registration period: August-September, 2014

DOCUMENTS THAT MUST ACCOMPANY THE APPLICATION FORM:

- DNI, NIE or Passport
- Certificate of undergraduate studies
- A short CV

In addition, the Academic Board might request a personal interview.

CONTACT

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COORDINATOR OF THE PROGRAMME

María Jesús Iglesias Briones

FURTHER INFORMATION

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

