

Bachelor's Degree in

### **MARINE BIOLOGY AND BLUE BIOTECHNOLOGIES**







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#### **Department**

Chemical, Biological, Pharmaceutical and **Environmental Science** (CHIBIOFARAM)



#### **Duration**

3 years



### → Programme overview

The Bachelor's Degree in 'Marine Biology and Blue Biotechnologies' (MarBioTech) belongs to the Degree Class L-13. The course, entirely carried out in English, has an open number of European and non-European students. MarBioTech covers a wide range of topics related to marine sciences, sustainable use of marine resources, marine biological and ecological processes, emerging pathologies, biotechnological potential of marine resources, relating environmental studies with marine environmental policy issues. The graduate in MarBioTech will be a Junior Biologist, trained on all aspects of Biology (and related disciplines) related to the marine environment. The course will be divided into a common two-year course, while the third year will be divided into two curricula, 'Physical and Natural Sciences', which will be dedicated to the knowledge, protection and safequarding of the marine and coastal environment, and 'Marine resources and sustainability', which will place greater emphasis on eco-sustainable exploitation and management of marine resources. The course includes an experimental internship to be carried out at external affiliated locations (public or private bodies, research laboratories, industries), under the guidance of a university tutor. The course is already by vocation aimed at internationalisation and intercultural exchange. The Bachelor's Degree 'MarBioTech', unique in Europe, represents an important step for the accreditation of our University as a reference centre for training and research in the field of 'Marine Biology' at 360°. The geographical area (Strait of Messina, the Lagoon of Capo Peloro) in which the University of Messina is located is the ideal location for the newly course.



#### → Minimal entry requirements

A foreign certified qualification demonstrating 12 years of study as equivalent to an Italian secondary school diploma.

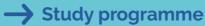
Scan the QR Code for further admission requirements criteria



#### → Language requirements

International English language certificate issued by an Institution recognised by the Italian Ministry of University and Research (MUR), **B2** level of the Common European Framework of Reference.

Scan the QR Code for detailed language requirements criteria



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## YEAR **1**

- ► Math with elements of Statistics and principles of Physics
- ▶ General and Inorganic Chemistry
- Cellular and Developmental Biology
- ▶ Marine Botany
- ▶ Marine Zoology
- Analytical Methodologies for Sea Water Analysis
- ▶ Marine Ecology
- ► Additional language skills
- Informatics and telematics skills

### YEAR 2

- Organic Chemistry
- ► Ichtyology and Conservation
- Microbiology and Marine Biotechnologies
- Comparative Pathology of marine fauna
- Physiology and Marine Pharmacology
- Molecular Biology
- ► Genetic of marine organisms
- Activities selected by students

### CURRICULUM IN PHYSICAL AND NATURAL SCIENCE

# YEAR 3

- Biochemistry and Marine toxicology
- Cartography and Coastal Dynamics
- ► Environmental Chemistry
- Physical Oceanography
- ▶ Elective learning courses
- Further learning activities
- Training activities
- ► Final exam
- Elective Courses: Geochemistry and Vulcanology - Physical Chemistry

### CURRICULUM IN MARINE RESOURCES AND SUSTAINABILITY

YEAR 3

- Biochemistry and Marine-based Nutraceuticals
- ► International Law on marine environmental protection
- ▶ Pathology of farmed organism and experimental model
- ▶ Fishery
- ► Elective learning courses
- ▶ Further learning activities
- ▶ Training activities
- ▶ Final exam
- ▶ Elective Courses: Systematic and Biotechnological Application of Marine Flora - Biotechnological Application of Marine Invertebrates



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### → International Opportunities

UniME students have the opportunity to participate in the Erasmus+ Mobility programme both for study and training. Calls are published on the site twice per year. Another opportunity for students is the UniME Funded programme 'Students Around the World' (SAW) call for scholarships for study at the extra-European universities in the context of international cooperation agreements. For further information please visit our site.



### → Tuition fees

Tuition Fees: A fixed fee (€ 156.00) and a remaining amount of tuition calculated on the basis of a sliding scale according to the yearly family income. Scan the QR Code for further information.





"This new programme offers great opportunities in the field of Marine Sciences. Messina is the ideal location for theoretical and practical activities prescribed by the different curricula of the course".

Samira Abbas













