



Master's Degree in ECOSYSTEMS AND MARINE BIOPRODUCTION (EBM)

The EBM degree trains professionals in the multidisciplinary study of marine ecosystems, aquaculture, and valorisation of substances and marine organisms. Complementary skills in geomatics, remote sensing and quantitative data analysis will enable you to integrate the spatial and temporal dimensions of resource distribution and biological interactions in the marine environment. You will be able to follow a research career (after a doctorate), as well as that of agri-food and pharmaceutical production or environmental monitoring, management and development.

Syllabus

First Semester (30 ECTS)

- Geographic information system I
- Science and research communication
- Research for environmental sciences
- Ecosystem structure and functioning
- Environmental diagnosis
- Biostatistical analysis and modeling
- Anthropic and natural environment change I
- Marine bioproduction
- Marine microbiology

Second Semester (30 ECTS)

- Principles of remote sensing
- Anthropic and natural environment change II
- Environmental law
- Environmental assesment
- Bivalve Ecophysiology
- Field courses in marine ecology
- Internship

Third Semester (30 ECTS)

- Marine ecology field workshops
- Biogeochemical markers in coastal areas
- Law and economics of marine production and its protection
- Shellfish life cycle
- Marine safety products
- Food composition trophic transfer and human nutrition
- Refinement and development of marine natural products
- Earth and planetary remote sensing
- Geographic information systems II
- Data analysis
- Entrepreneurship
- Preparation for Research

Fourth Semester (30 ECTS)

- A 5 to 6 months internship

Skills

- Integrate the spatial and temporal dimensions of environmental systems
- Address environmental issues through a multidisciplinary approach
- Identify and analyse the challenges of aquaculture and its interactions with the coastal zone environment
- Implement and analyze the results of direct and indirect biological study methods of marine environments
- Implement and analyze the results of biotechnological study methods applied to the valorization of marine substances

Career Opportunities

Sectors

- Environment
- Geosciences
- Biology, ecology
- Aquaculture
- Cartography
- Agri-food
- Pharmaceutical production

Occupations

- Engineer, project manager
- Research engineer (after a PhD)
- Researcher, university teacher (after a PhD)





Admission

› To enter this Master's degree in 1st year (1st semester) applicants should hold a Bachelor's degree in life and earth or environmental sciences. Highly motivated students holding a degree in life sciences, earth sciences, chemistry or biochemistry can apply as well.

› You can also enter the programme in second year (3rd semester). Applicants should hold a degree equivalent to the first year of a master (i.e. a 3-year Bachelor is not acceptable), for example a 1st year of MSc validated in a field related to the scientific field of the master.

Applicants should be able to demonstrate their knowledge from transcripts of their degrees. The programme is completely delivered in English. Students whose first language is not English must provide proof of a minimum knowledge in English.

Application

› Exchange students follow the application procedure for exchange students.

› Students coming from a country using the CEF/Campus France procedure must enroll with Campus France.

› Students coming from a country not using the CEF/Campus France procedure follow the non CEF-procedure.

Cost

The cost refers to education and training costs that includes additional services such as French language classes.

+ A provisional budget is available on Nantes Université's website.

Language

The programme is taught in English. A good command of the English language is required (B2 score as defined by the Council of Europe).



Location

In Nantes, the university is organized into four major campuses along the Erdre River, crossing the city from north to south to the Ile de Nantes on the Loire River.

The programme courses are located on the Lombarderie Campus which is a wooded area well served by public transportation.

Nantes (600,000 inhab.) is located close to the Atlantic Ocean and is regularly rated as one of the most pleasant French cities to live in. Thanks to its beautiful parks, efficient public transport and other policies for sustainable development, Nantes has been awarded the status of European Green Capital.



Faculty key figures

5 000

Students

19%

International Students

96%

Professional integration*

11

Research Units

Academic calendar

Courses start in early September.

Contact

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* Source : SUIO - Enquête à 30 mois, Déc.2021 - Domaine "sciences, technologie, études d'ingénieur" / Crédit photos: Service Photo, Nantes Université