

# MASTER OF SCIENCE IN AQUACULTURE

120 ECTS CREDITS - LANGUAGE: ENGLISH

## WHAT

The increasing consumption of aquatic products in the European countries has drawn much attention to the development of a sustainable aqua-culture and fishery sector. Declining fishery catches and changing consumer requirements for a diversified range of safe, high-quality farmed aquatic products has inevitably lead to regional and national specialisation in research as well as in education. Due to the diversity of aquaculture and fisheries, education in this sector calls for a multidisciplinary approach.

Also in non-European countries (including 'Third Countries') the demand for aquatic animal products is rising, putting pressure on the natural resources. Hence the interest for aquaculture products in these countries is high (Far East, Africa) and is already the subject of a fast developing economic activity (Far East) or has the potential of becoming so (Africa). World statistics do indeed indicate that aquatic food is traded very intensively. It is estimated that 50 % of the total aquatic production is crossing national borders. The Aquaculture programme calls upon the Ghent University and European aquaculture expertise to educate and train students and scholars from European and third countries in order to stimulate transfer of knowledge to and from Europe, nurturing in this way a sustainable development of aquaculture in these countries.

Ghent University Laboratory of Aquaculture & Artemia Reference Centre has a long-standing worldwide reputation in the field of education and training in aquaculture.

The objectives of the programme are:

- to deliver researchers able to perform and design research in various aquaculture fields;
- to deliver experts who can draw and implement strategies for future development in the aquaculture industry;
- to form key persons who can act as a nucleus in their local environment through dissemination and teaching their acquired knowledge;
- to deliver academically trained staff for the aquaculture industry.

## STRUCTURE

The Master of Science of Aquaculture is a two-year, university-level programme covering the most important aspects of aquaculture for both marine and freshwater organisms. In the first term, basic knowledge of biology, physiology, microbiology,

statistics, informatics is broadened and/or refreshed. The second term of the first year focuses on specific aspects in aquaculture such as larviculture and larval food production, fish and shellfish production techniques, algae culture and farm management training.

During the entire first term of the second year students follow specialist course units on diseases, genetics and management at Ghent University. Our Master's programme is organised exclusively in English and welcomes a diverse international audience. Several guest speakers and practicing scientists and scholars from other European institutions (and abroad) contribute to the programme. The Faculty of Bioscience Engineering has a wide range of bilateral agreements for both student and lecture exchange with universities all over the world. This offers opportunities for integration of the Ghent University Aquaculture curriculum with the curriculum of other universities teaching aquaculture at the MSc level, leading to a higher variety of specialist course units, work placements and dissertation work. The many excursions to different fish and shellfish farms in Europe will give the student a better understanding of the industry. Students have the opportunity to follow a farm training in marine or freshwater farms or research centres. Specialist course units such as Aquatic Farm Management Training, Fish Culture Techniques, Management in the Aquaculture Industry ... compare the European situation with the situation in the student's country of origin.

## Master's Dissertation

Students can choose the topic for their Master's dissertation (thesis) from a broad range of disciplines in which the scientific staff of the Master's programmes is active. In general, the students become involved in ongoing research within the research laboratories of their promoter(s). They can however also propose their own research topic. Thanks to our extended international network, students can perform their Master's dissertation work in laboratories in other (non-) European countries. Students have to conduct research with the appropriate expertise in order to contribute to the development of a particular research domain. The ultimate goal is to initiate students into research at an academic level so that, upon completion of their Master's degree, they are able to carry out scientific research independently. Specific requirements will be mentioned in the practical

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procedure.

## LABOUR MARKET

Aquaculture is a diverse and dynamic industry. It depends on knowledge from a series of disparate disciplines (e.g. biology, engineering, marketing), and it is constantly evolving, drawing on new technologies and the outputs of a range of R&D activities. Consequently, there is a need of highly trained and skilled personnel with specific but varying skills in order to be able to exploit existing aquaculture potentials in a profitable and sustainable way. It is therefore essential to educate and train these aquaculture specialists of the future at European universities. Europe also needs to educate and train students and scholars from third countries in order to stimulate transfer of knowledge to and from Europe.

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## TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

### 1 Rechtstreeks:

- Bachelor in de bio-industriële wetenschappen
- Bachelor in de bio-ingenieurswetenschappen
- Bachelor in de biochemie en de biotechnologie
- Bachelor in de biologie
- Bachelor in de biomedische wetenschappen
- Bachelor in de biowetenschappen
- Bachelor in de diergeneeskunde
- Bachelor in de farmaceutische wetenschappen
- Bachelor in de industriële wetenschappen: milieukunde
- Bachelor of Environmental Technology
- Bachelor of Food Technology
- Bachelor of Molecular Biotechnology

## ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

Consult [the programme website](#) for specific academic and language requirements.

Information on admission requirements and the administrative procedure for admission on the basis of a diploma obtained abroad, can be found on the following page: [www.ugent.be/prospect/en/administration/enrolment-or-registration](http://www.ugent.be/prospect/en/administration/enrolment-or-registration).

## LANGUAGE REQUIREMENTS

Language requirements Dutch: no language requirements

Language requirements for this study programme differ from the required standard level for English taught study programmes as specified in the Ghent University Education and Examination Code:

### English:

Only nationals of all EU and EEA countries, Australia, Botswana, Cameroon, Canada, Eritrea, Gambia, Ghana, Guyana, India, Jamaica, Kenya, Liberia, Malawi, Namibia, New Zealand, Nigeria, Pakistan, Philippines, Rwanda, Sierra Leone, South Africa, Sri Lanka, Tanzania, Uganda, UK, USA, Zambia, and Zimbabwe, can provide a stamped and signed certificate of English proficiency issued by their previous university if they have obtained at least 60 ECTS credits with English as the language of

instruction during a previous bachelor or master level higher education degree. This certificate should clearly state that English was the language of instruction during the previous degree.

Candidates from any other nationality need to present test results of one of the following tests (validity of 5 years):

- TOEFL iBT 86
- TOEFL pBT 570
- Academic IELTS 6,5 overall score with a min. of 6 for writing (online test is accepted)

### Exemptions:

- Prospective students who have a diploma (Secondary Education, Academic Bachelor Degree, Master Degree) issued by an institution officially recognized by the Flemish Government (see Education and Examination Code art. 10 § 1 2°).

**Remark:** this exemption does not count for application to Erasmus Mundus Programmes.

## PRACTICAL INFORMATION

### Study programme

[studiekiezer.ugent.be/master-of-science-in-aquaculture-en/programma](http://studiekiezer.ugent.be/master-of-science-in-aquaculture-en/programma)

### Information sessions

#### Graduation Fair

[afstudeerbeurs.gent/en/students/further-studies](http://afstudeerbeurs.gent/en/students/further-studies)

### Enrolling institution

Information on enrolment at Ghent University.

### Application Deadline (for International degree students)

More information on programme specific application procedures and deadlines for both **Belgian and international students**.

### Tuition fee

More information is to be found on: [www.ugent.be/tuitionfee](http://www.ugent.be/tuitionfee)

### Contact

Ghent University  
Faculty of Bioscience Engineering  
International Training Centre  
Coupure Links 653, B-9000 Gent  
[applications.itc@ugent.be](mailto:applications.itc@ugent.be)

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## Learning path counsellor

Mevr. Isabelle Vantornhout  
[studietraject.coupure.bw@UGent.be](mailto:studietraject.coupure.bw@UGent.be)

[www.itc.ugent.be](http://www.itc.ugent.be)