MASTER OF SCIENCE IN AQUACULTURE

International Course Programme (ICP): Master's Programme organised by Ghent University and supported by the Flemish Interuniversity Council (VLIR-UOS)

120 ECTS CREDITS – LANGUAGE: ENGLISH – DEGREE: MASTER OF SCIENCE

COURSE CONTENT

The increasing consumption of aquatic products in the European countries has drawn much attention to the development of a sustainable aquaculture 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 in these countries the interest
for aquaculture products 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 MSc Aquaculture calls upon the UGent 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.

The Laboratory of Aquaculture & Artemia Reference Center of Ghent University, Belgium 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.

COURSE STRUCTURE

The Master of Science in Aquaculture is a two-year programme at an university level on the most important aspects of aquaculture for both marine and freshwater organisms.
In the first semester, basic knowledge such as biology, physiology, microbiology, statistics, informatics are broadened and/or refreshed. The second semester 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.
The whole first semester of the second year students follow specialised courses on diseases, genetics and management at Ghent University. During the second year, the student can specialise in a particular field of aquaculture by following a 15 credits Major in Aquaculture Health Management or Sustainable Management of Aquatic Resources.

This master's programme is organised solely in English and receives 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 UGent Aquaculture curriculum with the curriculum of other universities teaching aquaculture at the MSc level, leading to a higher variety of specialised courses, internships 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 centre. Specialised courses 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) in 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 programme, they are able to carry out scientific research in a proper way. Specific requirements will be mentioned in the practical procedure.

CAREER PERSPECTIVES

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, therefore it is 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.

FACULTY OF BIOSCIENCE ENGINEERING

2019–20

BW10

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

Rechtstreeks:
- Ba bio-ingenieurswetenschappen
- Ba biochemie en biotechnologie
- Ba biologie
- Ba diergeneeskunde

Via voorbereidingsprogramma:
- Ba biomedische wetenschappen
- Ba chemie
- Ba farmaceutische wetenschappen
- Ba industriële wetenschappen:
  - chemie
  - milieukunde
- Ba biowetenschappen

TAAL
Je voldoet aan de taalvoorwaarden op basis van je Vlaams diploma.

PRAKTISCHE INFORMATIE

Studieprogramma:
https://studiegids.ugent.be
> faculteiten > opleidingstypes > ga naar de opleiding van je keuze

Alternatieve trajecten - doorstroomprogramma's
Ben je in het bezit van een masterdiploma waarvan het bachelorvoortraject bij de toelatingsvoorwaarden vermeld staat onder de categorie "via voorbereidingsprogramma", dan kan je eventueel – na toelating op basis van dossieronderzoek – onmiddellijk starten in de betreffende masteropleiding (horizontale instroom). Je volgt dan een geïndividualiseerd traject van minstens 120 sp. De trajectbegeleider is je contactpersoon.
Meer info: www.ugent.be/bw/start-een-master

Infomomenten
Masterbeurs
www.ugent.be/masterbeurs

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

For programme specific academic and language requirements consult www.ugent.be/bw/en/education/master-programmes.

PRACTICAL INFORMATION

Study programme
www.ugent.be/coursecatalogue
> by Faculty > Programme types > select your programme

Application deadline
For programme specific application procedures and deadlines consult www.ugent.be/bw/en/education/master-programmes.

Enrolling institution
Ghent University

Tuition fee
More information is to be found on:
www.ugent.be/tuitionfee and www.itc.ugent.be.
This programme is supported by (VLIR-UOS and other) scholarships:
www.ugent.be/bw/en/education/scholarships

Trajectbegeleiding/Learning path counsellor
Mevr. Isabelle Vantornhout
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Contact
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Last update: January 2019

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