GHENT UNIVERSITY

Study Programme

Academic year 2021-2022

Programme jointly offered by Ghent University,Norwegian University of Science and Technology,Wageningen University,Autonomous University of Barcelona,University of Barcelona

International Master of Science in Health Management in Aquaculture

Language of instruction: English

Programme version 1

1 General Courses — 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002854	Principles of Marine Fish Larviculture *Gilbert Van Stappen -- Department of Animal Sciences and Aquatic Ecology*	3		1	A:1	90
2	I002796	Diseases in Aquaculture *Peter Bossier -- Department of Animal Sciences and Aquatic Ecology*	6		1	A:1	180
3	I002084	Viral Disease Management *Hans Nauwynck -- Department of Translational Physiology, Infectiology and Public Health*	3		1	A:1	90
4	I002797	Fish and Shellfish Immunology *Daisy Vanrompay -- Department of Animal Sciences and Aquatic Ecology*	4		1	A:1	120
5	I002086	Aquatic Microbial Community Management *Peter Bossier -- Department of Animal Sciences and Aquatic Ecology*	3		1	A:1	75
6	I002795	Aquaculture Genetics *Peter Bossier -- Department of Animal Sciences and Aquatic Ecology*	6		1	A:1	180
7	I002756	Applied Statistics *Aisling Daly -- Department of Data Analysis and Mathematical Modelling*	5		1	A:1	150

2 General Courses — 60 credits

Subscribe to 1 elective learning track from the following list. Subject to approval by the faculty.
Learning tracks:
- Ecosystems and Health
- Disease Prevention Management and Health
- Physiology and Health

The chosen learning track determines the mobility path.
Depending on the mobility path chosen, students will additionally enrol at the host university per semester or per academic year they take part of the programme taught by this university.

2.1 Ecosystems and Health — 60 credits

Students taking the learning track Ecosystems & Health additionally enrol at NTNU in both the second and third semester of the study programme. They reside in Trondheim, Norway throughout the second and third semester.

All course units in this module are mandatory.
30 ECTS are taken up in the first year master (MT1 = 1); 22,5 ECTS in the second year master (MT1 = 2).

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002858	Fish Welfare and Health *Norwegian University of Science and Technology, Rolf Erik Olsen*	7.5		1	A:2	200
2	I002859	Recirculating Aquaculture Systems RAS *Norwegian University of Science and Technology, Kari Johanne Kihle Attramadal*	7.5		1	A:2	200
3	I002860	Expert in Teams *Norwegian University of Science and Technology, Ingeborg Hollekim Bringslid*	7.5		1	A:2	200
4	I002861	Marine Juvenile Production *Norwegian University of Science and Technology, Elin Kjørsvik*	7.5		1	A:2	200
5	I002862	Aquaculture in the Ecosystem *Norwegian University of Science and Technology, Kjell Inge Reitan*	7.5		2	(A:1)[c]	200

6	I002865	AquaHealth Club *Norwegian University of Science and Technology, Yngvar Olsen*	7.5	2	(A:1)[c]	200
7	I002866	Internship Project *Norwegian University of Science and Technology, Yngvar Olsen*	7.5	2	(A:1)[c]	200

2.1.1 Elective Courses — 7.5 credits

Subscribe to 7,5 credit units from the following list in the second year master (MT1 = 2). Subject to approval by the faculty.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002863	Laboratory Animal Science for Researchers *Norwegian University of Science and Technology, Siv Eggen*	7.5		2	(A:1)[c]	200
2	I002864	Environmental Assessment Methods and Quality of Coastal Water *Norwegian University of Science and Technology, Yngvar Olsen*	7.5		2	(A:1)[c]	200

2.2 Disease Prevention Management and Health — 60 credits

Students taking the learning track Disease Prevention Management & Health additionally enrol at WU in the second semester and at NTNU in the third semester of the study programme. During the second semester they reside in Wageningen, The Netherlands, in the third semester in Trondheim, Norway.

All course units in this module are mandatory.
24 ECTS are taken up in the first year master (MT1 = 1); 30 ECTS in the second year master (MT1 = 2).

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002868	Nutrition and Health in Aquaculture *Wageningen University, Johan W Schrama*	6		1	A:2	168
2	I002869	Frontiers in Animal Health *Wageningen University, Maria Forlenza*	6		1	A:2	168
3	I002870	Academic Consultancy Training and MOS Modules *Wageningen University, Susan Sande Okoth*	12		1	A:2	336
4	I002867	Internship Comprehensive Project *Norwegian University of Science and Technology, Yngvar Olsen*	22.5		2	(A:1)[c]	600
5	I002865	AquaHealth Club *Norwegian University of Science and Technology, Yngvar Olsen*	7.5		2	(A:1)[c]	200

2.2.1 Elective Courses — 6 credits

Subscribe to no less than 6 and no more than 9 credit units from the following list in the first year master (MT1 = 1). Subject to approval by the faculty.

Students that need to take the course 'Laboratory Animal Science: Design and Ethics in Animal Experiments' in order to be allowed to handle laboratory animals in the framework of the thesis at WU will subscribe to 9 credit units and accumulate 33 credit units in semester 2 and hence 123 credit units in the complete curriculum.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002871	Sustainability in Fish and Seafood Production *Wageningen University, Geertje LH Schlaman*	6		1	A:2	168
2	I002872	Water Quality *Wageningen University, Jeroen JM de Klein*	6		1	A:2	168
3	I002873	Laboratory Animal Science: Design and Ethics in Animal Experiments *Wageningen University, Bas JM Arts*	3		1	A:2	84
4	I002874	Short Research Projects in Biology *Wageningen University, Leo AJ Nagelkerke*	6		1	A:2	168

2.3 Physiology and Health — 60 credits

Students taking the learning track Physiology & Health additionally enrol at UAB as well as at NTNU in both the second and third semester of the study programme. In both semesters, students take part of the study programme at each of both universities. They reside in Barcelona, Spain throughout the second and third semester, where they take the specialised courses and the electives, whereas the internship is supervised remotely by NTNU and the AquaHealth Club is taught by NTNU through distance learning.

All course units in this module are mandatory.
28,5 ECTS are taken up in the first year master (MT1 = 1); 31,5 ECTS in the second year master (MT1 = 2).

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002875	Fish Laboratory Course *Universitat de Barcelona, Joaquim Gutiérrez Fruitos -- University of Barcelona*	2		1	A:2	50
2	I002876	Fish Health Laboratory Course *Universitat Autónoma de Barcelona, Nerea Roher Armentia -- Autonomous University of Barcelona*	2		1	A:2	50
3	I002877	Basic Marine Aquaculture Facility Management *Universitat Politècnica de Catalunya • BarcelonaTech, Maria Lourdes Reig Puig*	2		1	A:2	50
4	I002867	Internship Comprehensive Project *Norwegian University of Science and Technology, Yngvar Olsen*	22.5		1	B:2	600

5	I002878	Production and Health Management in Aquaculture Facilities *Universitat Politècnica de Catalunya • BarcelonaTech, Ingrid Masaló Llora*	8	2	(A:1)[c]	200
6	I002879	Stress, Pathology, Immune Response, and Environmental Health *Universitat Autónoma de Barcelona, Maria Constenla Matalobos -- Autonomous University of Barcelona*	8	2	(A:1)[c]	200
7	I002880	Physiology of Aquaculture Species *Universitat de Barcelona, Isabel Navarro -- University of Barcelona*	8	2	(A:1)[c]	200
8	I002865	AquaHealth Club *Norwegian University of Science and Technology, Yngvar Olsen*	7.5	2	(A:1)[c]	200

3 Master's Dissertation 30 credits

The fourth semester of the study programme consists of the master's dissertation, which is taken at one of the full consortium partner universities. Students additionally enrol at that university.
Exception: For students having chosen the track Disease Prevention Management & Health, the master's dissertation must be taken under the supervision of WU.

During the fourth semester, students reside where the consortium partner university at which they take the master's dissertation, is located, or at the location of the associated university, research institution or NGO where they carry out the experimental work for the master's dissertation.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002881	Master's Dissertation *Peter Bossier -- Department of Animal Sciences and Aquatic Ecology*	30		2	(A:2)[c]	900

Teaching

When a course is not taught (solely) in the programme's language of instruction, the effectively used languages are indicated in square brackets following the cours name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Kroatian/Serbian	zh: Chinese
cs: Czech	el: Greek	fr: French	nl: Dutch	pt: Portuguese	sl: Slovene	
da: Danish	en: English	it: Italian	no: Norwegian	ru: Russian	sv: Swedish	

Semester

Semesters are indicated by their number (1 or 2); semester 3 represents the summer period and J indicates a course spanning semesters 1 and 2.
When a capital letter precedes a semester number, the course has multiple offerings. The letter indicates the offering concerned.
When a semester is shown in brackets, the course in not offered this year in the specific offering.
The offering frequency and first year of offering are indicated by the following codes:

a: bi-annually	c: annually, from 2022-2023	f: annually, from 2023-2024	i: annually, from 2024-2025
b: tri-annually	d: bi-annually, from 2022-2023	g: bi-annually, from 2023-2024	j: bi-annually, from 2024-2025
	e: tri-annually, from 2022-2023	h: tri-annually, from 2023-2024	k: tri-annually, from 2024-2025