GHENT UNIVERSITY

Study Programme

Academic year 2026-2027

Faculty of Bioscience Engineering

Master of Science in Bioscience Engineering: Agricultural Sciences

Language of instruction: Dutch

Programme version 15

1 General Courses 61 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I003082	Animal Physiology *Veerle Fievez -- Department of Animal Sciences and Aquatic Ecology*	4		1	A:1	120
2	I002647	Plant Husbandry *Benny De Cauwer -- Department of Plants and Crops*	5		1	A:1	150
3	I002651	Monitoring Systems in Agriculture *Wouter Maes -- Department of Plants and Crops*	5		1	A:1	150
4	I003066	Agroecology [en] *Eduardo de la Pena -- Department of Plants and Crops*	5		1	A:1	150
5	I003106	Management of Plant Diseases, Pests and Weeds *Patrick De Clercq -- Department of Plants and Crops*	5		1	A:1	150
6	I002738	Plant Breeding [en] *Steven Maenhout -- Department of Plants and Crops*	5		1	A:1	150
7	I002643	Agricultural Constructions *Jan Pieters -- Department of Plants and Crops*	5		1	A:2	150
8	I002646	Nutrient Management [en] *Stefaan De Neve -- Department of Environment*	5		1	A:2	150
9	I001280	Experimental Design [en] *Stijn Luca -- Department of Data Analysis and Mathematical Modelling*	3		1	A:2	75
10	I002650	Agricultural and Rural Policy, EU Perspective [en] *Jeroen Buysse -- Department of Agricultural Economics*	5		2	A:1	150
11	I003083	Animal Nutrition *Veerle Fievez -- Department of Animal Sciences and Aquatic Ecology*	5		2	A:2	150
12	I003084	Integrated Project Agricultural Sciences *Stefaan De Smet -- Department of Animal Sciences and Aquatic Ecology*	5		2	A:J	150
13	I003068	Management for Engineers [en] *Jeroen Buysse -- Department of Agricultural Economics*	4		2	A:1	120

2 Elective Courses 29 credits

Subscribe to 29 credit units from 2 modules from the following list, of which at least 14 credit units from module 2.1. and at least 5 credit unitis from module 2.2.

2.1 Discipline-Specific Courses

Subscribe to no less than 14 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I003105	Biological and Biotechnological Control of Plant Pests and Diseases [en] *Patrick De Clercq -- Department of Plants and Crops*	5			A:1	150
2	I003104	Sustainable and Innovative Weed Management *Benny De Cauwer -- Department of Plants and Crops*	3			A:1	90
3	I003099	Climate-Resilient Cultivation Systems *Emmy Dhooghe -- Department of Plants and Crops*	4			A:2	120
4	I700301	Precision Agriculture: Applications for Plant and Animal *Jeroen Degroote -- Department of Animal Sciences and Aquatic Ecology*	3			A:1	90

5	I003107	Crop Protection Chemistry *Pieter Spanoghe -- Department of Plants and Crops*	3			A:2	90
6	I003096	Ecofysiology *Kathy Steppe -- Department of Plants and Crops*	5			A:1	150
7	I003081	Quality Management and Risk Analysis *Liesbeth Jacxsens -- Department of Food Technology, Safety and Health*	5			A:2	150
8	I003064	Planning for Multifunctional Landscapes *Kris Verheyen -- Department of Environment*	5			A:2	150
9	I002724	Technology of Animal Products *Frank Devlieghere -- Department of Food Technology, Safety and Health*	5			A:2	150
10	I002731	Tropical Crop Production [en] *Eduardo de la Pena -- Department of Plants and Crops*	4			A:2	120
11	I002747	Sociological Perspectives on Rural Development [en] *Joost Dessein -- Department of Agricultural Economics*	5			A:1	150

2.2 Cross-Disciplinary Elective Courses

Subscribe to no less than 5 and no more than 15 credit units from no less than 1 and no more than 2 module(s) from the following list.
A minimum of 5 credit units is required from module 3.1.1 "Cross-Disciplinary Elective Set for Bioscience Engineers".

Courses for which the final competencies are already (largely) achieved by another course in the curriculum cannot be included as part of the elective set.
Subject to approval by the faculty.

2.2.1 Elective Set

2.2.1.1 Cross-Disciplinary Elective Set for Bioscience Engineers

Subscribe to course units from the following list, with no more than 10 credit units with reference A.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I003053	Machine Learning for Life Sciences [en] *Willem Waegeman -- Department of Data Analysis and Mathematical Modelling*	4			A:1	120
2	I003054	Computer Vision for Life Sciences [en] *Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling*	5			A:2	150
3	I003021	Advanced Biosystems Modelling [en] *Paul Van Liedekerke -- Department of Data Analysis and Mathematical Modelling*	5			A:1	150
4	I001280	Experimental Design [en] *Stijn Luca -- Department of Data Analysis and Mathematical Modelling*	3			A:2	75
5	I003068	Management for Engineers [en] *Jeroen Buysse -- Department of Agricultural Economics*	4			A:1	120
6	I002718	Economics and Management of Natural Resources [en] *Stijn Speelman -- Department of Agricultural Economics*	4			A:2	120
7	I002750	Isotopes in Biosciences [en] *Pascal Boeckx -- Department of Green Chemistry and Technology*	5			A:1	150
8	I003055	Biodiversity and Nature Conservation *Lander Baeten -- Department of Environment*	4			A:1	120
9	I002586	Multidisciplinary Analysis of Climate Change [en] *Pascal Boeckx -- Department of Green Chemistry and Technology*	3			A:2	90
10	I003056	Human Nutrition and Health [en] *John Van Camp -- Department of Food Technology, Safety and Health*	5			A:1	150
11	I002758	Food Marketing and Consumer Behaviour [en] *Wim Verbeke -- Department of Agricultural Economics*	5			A:1	150
12	I003067	Bioethics [en] *Michiel De Proost -- Department of Philosophy and Moral Sciences*	3			A:1	75
13	I002637	Internship [en, nl] *Peter Ragaert -- Department of Food Technology, Safety and Health*	5	A		A:J	150
14	I002638	International Internship [en, nl] *Peter Ragaert -- Department of Food Technology, Safety and Health*	5	A		A:J	150
15	I002639	Extended Internship [en, nl] *Peter Ragaert -- Department of Food Technology, Safety and Health*	10	A		A:J	300
16	I002640	Extended International Internship [en, nl] *Peter Ragaert -- Department of Food Technology, Safety and Health*	10	A		A:J	300

2.2.2 Open Choice

Subscribe to course units from courses offered at Ghent University, including the Ghent University Elective Courses.
Maximum 8 credit units language courses are allowed within this master programme.

3 Master's Dissertation 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I001481	Master's Dissertation *Stefaan De Smet -- Department of Animal Sciences and Aquatic Ecology*	30		2	A:J	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 2027-2028	f: annually, from 2028-2029	i: annually, from 2029-2030
b: tri-annually	d: bi-annually, from 2027-2028	g: bi-annually, from 2028-2029	j: bi-annually, from 2029-2030
	e: tri-annually, from 2027-2028	h: tri-annually, from 2028-2029	k: tri-annually, from 2029-2030