GHENT UNIVERSITY

Study Programme

Academic year 2024-2025

Faculty of Bioscience Engineering

Master of Science in Environmental Science and Technology

Language of instruction: English

Programme version 3

1 General Courses — 55 credits

1.1 Module Environmental Sustainability and Policy — 13 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002701	Clean Technology: Theory and Concepts *Sophie Huysveld -- Department of Green Chemistry and Technology* Indicative price: unknown	3		1	A:1	90
2	I002586	Multidisciplinary Analysis of Climate Change *Pascal Boeckx -- Department of Green Chemistry and Technology* Indicative price: € 0	3		1	A:2	90
3	I001571	Environmental Legislation *Hendrik Schoukens -- Department of European, Public and International Law* Indicative price: unknown	3		1	A:1	75
4	I002718	Economics and Management of Natural Resources *Stijn Speelman -- Department of Agricultural Economics* Indicative price: € 68	4		1	A:2	120

1.2 Module Environmental Diagnostics — 15 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002587	Environmental Chemistry and Analysis: Atmospheric Processes *Christophe Walgraeve -- Department of Green Chemistry and Technology* Indicative price: € 110	5		1	A:1	150
2	I002588	Environmental Chemistry and Analysis: Water, Soil and Sediment *Filip Tack -- Department of Green Chemistry and Technology* Indicative price: € 35	5		1	A:1	150
3	I002606	Environmental Risk Assessment *Karel De Schamphelaere -- Department of Animal Sciences and Aquatic Ecology* Indicative price: € 0	5		1	A:1	150

1.3 Module Environmental Technology — 15 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002508	Environmental Technology: Water *Jo De Vrieze -- Department of Biotechnology* Indicative price: € 20	5		1	B:2	150
2	I002589	Environmental Technology: Soil and Sediment *Filip Tack -- Department of Green Chemistry and Technology* Indicative price: € 35	3		1	A:2	90
3	I002590	Environmental Technology: Air *Christophe Walgraeve -- Department of Green Chemistry and Technology* Indicative price: € 70	4		1	A:2	120
4	I002591	Environmental Technology: Waste *Frederik Ronsse -- Department of Green Chemistry and Technology* Indicative price: € 0	3		1	A:2	90

1.4 Module Applied Ecology — 9 credits

Nr	Course		CRDT	Ref	MT1	Session	Study

1	I002504	Applied Freshwater Ecology *Peter Goethals -- Department of Animal Sciences and Aquatic Ecology* Indicative price: unknown	3		1	A:1	90
2	I002535	Applied Marine Ecology *Colin Janssen -- Department of Animal Sciences and Aquatic Ecology* Indicative price: € 0	3		1	A:1	90
3	I002609	Environmental Microbiology *Nico Boon -- Department of Biotechnology* Indicative price: € 0	3		1	A:1	90

1.5 Module Research Skills — 3 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I003030	Introduction to Modelling and Simulation *Michiel Stock -- Department of Data Analysis and Mathematical Modelling* Indicative price: € 40	3		1	A:2	90

2 Majors — 21 credits

Subscribe to 21 credit units from 1 major from the following list. Subject to approval by the faculty.

2.1 Major Environmental Assessment and Management of Chemicals — 21 credits

Subscribe to 21 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002597	Urban and Indoor Air Quality *Christophe Walgraeve -- Department of Green Chemistry and Technology* Indicative price: € 350	6		2	A:1	180
2	I003014	Emerging Topics and Current Practice in Environmental Risk Assessment *Karel De Schamphelaere -- Department of Animal Sciences and Aquatic Ecology* Indicative price: € 0	5		2	A:2	150
3	I003015	Environmental Fate and Management of Pesticides *Pieter Spanoghe -- Department of Plants and Crops* Indicative price: € 0	5		2	A:1	150
4	I003016	Metals and Metalloids in Environment and Technology *Filip Tack -- Department of Green Chemistry and Technology* Indicative price: € 10	5		2	A:1	150

2.2 Major Resource Recovery Technology — 21 credits

Subscribe to 21 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002702	Clean Technology: Assessment Methods *Sophie Huysveld -- Department of Green Chemistry and Technology* Indicative price: unknown	3		2	A:1	90
2	I002598	Physico-Chemical Resource Recovery from Aqueous Waste Streams *Marjolein Vanoppen -- Department of Green Chemistry and Technology* Indicative price: unknown	6		2	A:1	180
3	I002607	Resource Recovery Technology *Ramon Ganigué -- Department of Biotechnology* Indicative price: € 0	5		2	B:2	150
4	I002600	Non-technological Drivers and Challenges of Resource Recovery *Stijn Speelman -- Department of Agricultural Economics* Indicative price: unknown	4		2	A:2	120
5	I003017	Digitalisation for Resource Recovery *Ingmar Nopens -- Department of Data Analysis and Mathematical Modelling* Indicative price: € 0	3		2	A:1	90

2.3 Major Urban Environmental Management — 21 credits

Subscribe to 21 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002851	Urban Ecology and Management *Ben Somers -- Department of Environment* Indicative price: unknown	3		2	A:1	90

2	I002597	Urban and Indoor Air Quality *Christophe Walgraeve -- Department of Green Chemistry and Technology* Indicative price: € 350	6	2	A:1	180
3	C003534	Urban Mobility and Logistics *Giovanni Circella -- Department of Geography* Indicative price: € 0	5	2	A:1	150
4	I001439	Environmental Noise *Timothy Van Renterghem -- Department of Information Technology* Indicative price: unknown	4	2	B:1	120
5	E084571	Urban Analysis and Design *Michiel Dehaene -- Department of Architecture and Urban Planning* Indicative price: € 0	3	2	B:1	90

3 Elective Courses 14 credits

Subscribe to 14 credit units from no less than 1 and no more than 3 module(s) from the following list. Subject to approval by the faculty. Students can choose which of the elective course units are taken in the first or the second standard learning track year (unless otherwise specified). In combination with the general course units, and the Master's dissertation the sum of the total number of credits taken up over the 2 standard learning track years must be 120 credits.

3.1 Courses from the Majors

Subscribe to no more than 14 credit units from the majors, with the exception of the courses taken within the chosen major.

3.2 Internship

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I001884	Internship *Karel De Schamphelaere -- Department of Animal Sciences and Aquatic Ecology* Indicative price: € 0	6		2	A:J	150

3.3 Open Choice

Subscribe to no more than 14 credit units from courses offered at Ghent University, including Ghent University Elective Courses in English. Maximum 6 credit units language courses are allowed within this master program. Subject to approval by the faculty.

4 Master's Dissertation 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I001508	Master's Dissertation *Karel De Schamphelaere -- Department of Animal Sciences and Aquatic Ecology* Indicative price: € 0	30		2	A:J	900

Programme related study costs

Type: Laptop

Name: Laptop
Indicative price: € 1,000
Optional: No

Type: Lab Material

Name: Safety glasses
Indicative price: € 15
Optional: No

Type: Lab Material

Name: Lab coat
Indicative price: € 30
Optional: No

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 2025-2026	f: annually, from 2026-2027	i: annually, from 2027-2028
b: tri-annually	d: bi-annually, from 2025-2026	g: bi-annually, from 2026-2027	j: bi-annually, from 2027-2028
	e: tri-annually, from 2025-2026	h: tri-annually, from 2026-2027	k: tri-annually, from 2027-2028

Learning materials

The prices stated are indicative and subject to fluctuations.
The list of learning materials per course unit can be found in the course sheets.