GHENT UNIVERSITY

Study Programme

Academic year 2023-2024

Faculty of Bioscience Engineering

Master of Science in Environmental Science and Technology

Language of instruction: English

Programme version 2

1 General Courses 60 credits

1.1 Module Environmental Sustainability and Policy

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002701	Clean Technology: Theory and Concepts *Sophie Huysveld -- Department of Green Chemistry and Technology*	3		1	A:1	90
2	I002585	Sustainability and Environmental Economics *Stijn Speelman -- Department of Agricultural Economics*	4		1	A:2	120
3	I002586	Multidisciplinary Analysis of Climate Change *Pascal Boeckx -- Department of Green Chemistry and Technology*	3		1	A:2	90
4	I001571	Environmental Legislation *Hendrik Schoukens -- Department of European, Public and International Law*	3		1	A:1	75

1.2 Module Environmental Diagnostics

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

1.3 Module Environmental Technology

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

1.4 Module Applied Ecology

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002504	Applied Freshwater Ecology *Peter Goethals -- Department of Animal Sciences and Aquatic Ecology*	3		1	A:1	90
2	I002535	Applied Marine Ecology *Colin Janssen -- Department of Animal Sciences and Aquatic Ecology*	3		1	A:1	90
3	I002609	Environmental Microbiology *Nico Boon -- Department of Biotechnology*	3		1	A:1	90

1.5 Module Environmental Research Skills

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002593	Introduction to Environmental Modelling and Simulation *David Fernandes del Pozo -- Department of Data Analysis and Mathematical Modelling*	3		1	A:2	90

2	I002594	Environmental Research Skills and Experimental Design *Gijs Du Laing -- Department of Green Chemistry and Technology*	5		1	A:J	150

2 Majors 24 credits

Subscribe to 24 credit units from 1 major from the following list.

2.1 Major Environmental Assessment and Management of Chemicals 24 credits

Subscribe to 24 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002595	Emerging Topics and Current Practice in Environmental Risk Assessment *Karel De Schamphelaere -- Department of Animal Sciences and Aquatic Ecology*	6		2	A:2	180
2	I002596	Environmental Fate and Management of Pesticides *Pieter Spanoghe -- Department of Plants and Crops*	6		2	A:1	180
3	I002597	Urban and Indoor Air Quality *Christophe Walgraeve -- Department of Green Chemistry and Technology*	6		2	A:1	180
4	I002749	Metals and Metalloids in Environment and Technology *Filip Tack -- Department of Green Chemistry and Technology*	6		2	A:1	180

2.2 Major Resource Recovery Technology 24 credits

Subscribe to 24 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*	3		2	A:1	90
2	I002598	Physico-Chemical Resource Recovery from Aqueous Waste Streams *Arne Verliefde -- Department of Green Chemistry and Technology*	6		2	A:1	180
3	I002599	Digitalisation for Resource Recovery *Ingmar Nopens -- Department of Data Analysis and Mathematical Modelling*	6		2	A:1	180
4	I002607	Resource Recovery Technology *Ramon Ganigué -- Department of Biotechnology*	5		2	B:2	150
5	I002600	Non-technological Drivers and Challenges of Resource Recovery *Stijn Speelman -- Department of Agricultural Economics*	4		2	A:2	120

2.3 Major Environmental Health and Technology for Developing Economies 24 credits

Subscribe to 24 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002601	Basic Concepts in Environmental Health *Stefaan De Henauw -- Department of Public Health and Primary Care*	4		2	A:1	120
2	I002608	Decentralized Sanitation and Treatment Technologies for Developing Economies *Diederik Rousseau -- Department of Green Chemistry and Technology*	6		2	A:1	180
3	I002607	Resource Recovery Technology *Ramon Ganigué -- Department of Biotechnology*	5		2	B:2	150
4	I002698	Water Quality Management *Peter Goethals -- Department of Animal Sciences and Aquatic Ecology*	4		2	A:2	120
5	I002779	Development Economics *Marijke D'Haese -- Department of Agricultural Economics*	5		2	A:1	150

2.4 Major Urban Environmental Management 24 credits

Subscribe to 24 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002851	Urban Ecology and Management *Ben Somers -- Department of Environment*	3		2	A:1	90
2	I002597	Urban and Indoor Air Quality *Christophe Walgraeve -- Department of Green Chemistry and Technology*	6		2	A:1	180
3	C003534	Urban Mobility and Logistics *Giovanni Circella -- Department of Geography*	3		2	B:1	90
4	I001439	Environmental Noise *Timothy Van Renterghem -- Department of Information Technology*	4		2	B:1	120
5	E084571	Urban Analysis and Design *Michiel Dehaene -- Department of Architecture and Urban Planning*	3		2	B:1	90

6	I001542	Environmental Impact Assessment: Integrated Project *Sophie Huysveld -- Department of Green Chemistry and Technology*	5		2	A:2	135

2.5 Major Environmental Health and Technology for Marine Systems 24 credits

Subscribe to 24 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002603	Blue Growth: An Interdisciplinary Approach to Research and Innovation in the Marine Environment *Colin Janssen -- Department of Animal Sciences and Aquatic Ecology*	3		2	A:1	90
2	C003870	Marine Policy and Governance *Klaas Willaert -- Department of European, Public and International Law*	3		2	A:1	75
3	I000928	Aquaculture Environmental Impact *Jana Asselman -- Department of Animal Sciences and Aquatic Ecology*	3		2	A:2	90
4	I002604	Oceans and Human Health *Jana Asselman -- Department of Animal Sciences and Aquatic Ecology*	3		2	A:1	90
5	E054820	Inland Waterways and Locks *Tom De Mulder -- Department of Civil Engineering*	4		2	D:2	120
6	C002642	Dredging and Offshore Constructions *Bruno Stuyts -- Department of Civil Engineering*	3		2	A:2	75
7	I002605	Seminars and Company Visits *Colin Janssen -- Department of Animal Sciences and Aquatic Ecology*	5		2	A:J	150

3 Elective Courses 6 credits

Subscribe to 6 credit units from no less than 1 and no more than 3 modules from the following list.

3.1 Courses from the Majors

Subscribe to no more than 6 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*	6		2	A:J	150

3.3 Ghent University Elective Courses in English

Subscribe to no more than 6 credit units from the Ghent University Elective Courses in English

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*	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 2024-2025	f: annually, from 2025-2026	i: annually, from 2026-2027
b: tri-annually	d: bi-annually, from 2024-2025	g: bi-annually, from 2025-2026	j: bi-annually, from 2026-2027
	e: tri-annually, from 2024-2025	h: tri-annually, from 2025-2026	k: tri-annually, from 2026-2027