GHENT UNIVERSITY

Study Programme

Academic year 2025-2026

Faculty of Bioscience Engineering

Master of Science in Bioscience Engineering: Chemistry and Bioprocess Technology

Language of instruction: Dutch

Programme version 15

1 General Courses 58 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I003079	Chemical Structure Determination [en] *Christian Stevens -- Department of Green Chemistry and Technology*	4		1	A:1	120
2	I002612	Industrial Biotechnology [en] *Wim Soetaert -- Department of Biotechnology*	5		1	A:1	150
3	I002668	Analytical Inorganic Chemistry: Instrumental Techniques *Gijs Du Laing -- Department of Green Chemistry and Technology*	3		1	A:1	90
4	I003071	Process Engineering 2 [en] *Paul Van der Meeren -- Department of Green Chemistry and Technology*	5		1	A:1	150
5	I002678	Bio-organic Chemistry [en] *Christian Stevens -- Department of Green Chemistry and Technology*	4		1	A:1	120
6	I002679	Green Chemistry of Renewable Resources [en] *Sven Mangelinckx -- Department of Green Chemistry and Technology*	4		1	A:1	120
7	I003060	Sustainable Systems Engineering [en] *Sophie Huysveld -- Department of Green Chemistry and Technology*	5		1	A:1	150
8	I002667	Colloid and Surface Chemistry *Paul Van der Meeren -- Department of Green Chemistry and Technology*	5		1	A:2	150
9	I002677	Thermochemical Conversion of Biomass *Stef Ghysels -- Department of Green Chemistry and Technology*	4		1	A:2	120
10	I003080	Process Control [en] *Paul Van Liedekerke -- Department of Data Analysis and Mathematical Modelling*	5		1	A:2	150
11	I002680	Integrated Practical Classes in Advanced Organic Chemistry *Christian Stevens -- Department of Green Chemistry and Technology*	5		1	A:2	150
12	I003068	Management for Engineers [en] *Jeroen Buysse -- Department of Agricultural Economics*	4		2	A:1	120
13	I003081	Quality Management and Risk Analysis *Liesbeth Jacxsens -- Department of Food Technology, Safety and Health*	5		2	A:2	150

2 Elective Courses 32 credits

Subscribe to 32 credit units from no less than 1 and no more than 6 module(s) from the following list. Subject to approval by the faculty.

2.1 Product Development and Renewable Resources

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002753	Chemistry of Natural Products [en] *Sven Mangelinckx -- Department of Green Chemistry and Technology*	5			A:1	150
2	E071341	Molecular Modelling of Industrial Processes [en] *Veronique Van Speybroeck -- Department of Applied Physics*	6			A:2	180
3	I002734	Crop Protection Chemistry *Pieter Spanoghe -- Department of Plants and Crops*	5			A:2	150
4	C004125	Advanced Organic Chemistry [en] *Annemieke Madder -- Department of Organic Chemistry*	6			A:1	180

5	C004151	Heterogeneous Catalysis [en] *Pascal Van Der Voort -- Department of Chemistry*	4			A:2	120

2.2 Chemical and/or Bioprocess Technology

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002631	Industrial Fermentation Processes and Downstream Processing [en] *Wim Soetaert -- Department of Biotechnology*	5			A:2	150
2	E039060	Sustainable Energy and Rational Use of Energy [en] *Filip Strubbe -- Department of Electronics and Information Systems*	4			A:2	120
3	I700265	Malting and Brewing Technology *Jessika De Clippeleer -- Department of Biotechnology*	4			A:1	120
4	I002607	Resource Recovery Technology [en] *Ramon Ganigué -- Department of Biotechnology*	6			A:2	180
5	I001561	Industrial Chemistry *Sven Mangelinckx -- Department of Green Chemistry and Technology*	3			A:2	75
6	I002776	Processes in Practice [en] *Eveline Volcke -- Department of Green Chemistry and Technology*	3			A:1	90
7	I003021	Advanced Biosystems Modelling [en] *Paul Van Liedekerke -- Department of Data Analysis and Mathematical Modelling*	5			A:2	150

2.3 Chemical Analysis

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002754	Environmental Chemistry: Organic Polluents *Christophe Walgraeve -- Department of Green Chemistry and Technology*	3			A:1	90
2	I002750	Isotopes in Biosciences [en] *Pascal Boeckx -- Department of Green Chemistry and Technology*	5			A:1	150

2.4 Entrepreneurship and Management

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I001967	Intellectual Property and Valorization [en] *Benedikt Sas -- Department of Food Technology, Safety and Health*	3			A:2	90
2	I001949	Entrepreneurship *Petra Andries -- Department of Marketing, Innovation and Organisation*	3			A:2	75
3	F001022	Dare to Venture [en] *Johan Verrue -- Department of Marketing, Innovation and Organisation*	4			A:2	120
4	E076471	Dare to Start [en] *Wouter Haerick -- Department of Information Technology*	3			A:2	90
5	C000833	Project Management *Mario Vanhoucke -- Department of Business Informatics and Operations Management*	4			A:2	120
6	F000710	Supply Chain Management [en] *Louis-Philippe Kerkhove -- Department of Business Informatics and Operations Management*	6			A:2	180

2.5 Skills and Attitudes

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	I002637	Internship [en, nl] *Paul Van der Meeren -- Department of Green Chemistry and Technology*	5	a		A:J	150
2	I002638	International Internship [en, nl] *Paul Van der Meeren -- Department of Green Chemistry and Technology*	5	a		A:J	150
3	I002639	Extended Internship [en, nl] *Paul Van der Meeren -- Department of Green Chemistry and Technology*	10	a		A:J	300
4	I002640	Extended International Internship [en, nl] *Paul Van der Meeren -- Department of Green Chemistry and Technology*	10	a		A:J	300
5	I003067	Bioethics [en] *Michiel De Proost -- Department of Philosophy and Moral Sciences*	3			A:1	75
6	C002668	Scientific Communication in English [en] *Geert Jacobs -- Department of Linguistics*	5			A:2	150
7	I001784	Seminar [en, nl] *Mieke Uyttendaele -- Department of Food Technology, Safety and Health*	3			A:J	75

2.6 Open Choice

Subscribe to course units from courses offered at Ghent University and at the alliance partner VUB, including the Ghent University Elective Courses.
A maximum of 2 such courses is allowed.
Maximum 8 credit units language courses are allowed within this master programme.
Subject to approval by the Faculty.

3 Master's Dissertation 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I001480	Master's Dissertation *Thomas Heugebaert -- Department of Green Chemistry and Technology*	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 2026-2027	f: annually, from 2027-2028	i: annually, from 2028-2029
b: tri-annually	d: bi-annually, from 2026-2027	g: bi-annually, from 2027-2028	j: bi-annually, from 2028-2029
	e: tri-annually, from 2026-2027	h: tri-annually, from 2027-2028	k: tri-annually, from 2028-2029