GHENT UNIVERSITY

Study Programme

Academic year 2022-2023

Faculty of Bioscience Engineering

Master of Science in Bioscience Engineering: Chemistry and Bioprocess Technology

Language of instruction: Dutch

Programme version 13

1 General Courses 58 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002675	Chemical Structure Determination [en] *Christian Stevens -- Department of Green Chemistry and Technology*	4		1	A:1	120
2	I002667	Colloid and Surface Chemistry *Paul Van der Meeren -- Department of Green Chemistry and Technology*	5		1	A:2	150
3	I002612	Industrial Biotechnology [en] *Wim Soetaert -- Department of Biotechnology*	5		1	A:1	150
4	I002668	Analytical Inorganic Chemistry: Instrumental Techniques *Gijs Du Laing -- Department of Green Chemistry and Technology*	3		1	A:1	90
5	I002618	Process Engineering 2 [en] *Paul Van der Meeren -- Department of Green Chemistry and Technology*	5		1	A:1	150
6	I002677	Thermochemical Conversion of Biomass *Frederik Ronsse -- Department of Green Chemistry and Technology*	4		1	A:2	120
7	I002678	Bio-organic Chemistry [en] *Christian Stevens -- Department of Green Chemistry and Technology*	4		1	A:1	120
8	I002679	Green Chemistry of Renewable Resources [en] *Sven Mangelinckx -- Department of Green Chemistry and Technology*	4		1	A:1	120
9	I002672	Process Control [en] *Kimberly Tumlos Solon -- Department of Data Analysis and Mathematical Modelling*	5		1	A:2	150
10	I002700	Clean Technology [en] *Sophie Huysveld -- Department of Green Chemistry and Technology*	5		1	A:1	150
11	I002680	Integrated Practical Classes in Advanced Organic Chemistry *Christian Stevens -- Department of Green Chemistry and Technology*	5		1	A:2	150
12	I002619	Management for Engineers [en] *Jeroen Buysse -- Department of Agricultural Economics*	4		2	A:1	120
13	I002652	Quality Management and Risk Analysis [en] *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.

Full-time standard learning track:
Students can choose which of the elective course units are taken in the first respectively the second standard learning track year (unless otherwise specified); in combination with the general course units, students take a total of 54 to 66 credits per standard learning track year. The sum of the total number of credits taken up over the 2 standard learning track years must be 120 credits.

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 *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	I002673	Packaging Technology [en] *Peter Ragaert -- Department of Food Technology, Safety and Health*	5			A:2	150
3	I002719	Modelling and Simulation with Partial Differential Equations in Practice [en] *Ingmar Nopens -- Department of Data Analysis and Mathematical Modelling*	5			A:1	150
4	I002669	Food Technology [en] *Koen Dewettinck -- Department of Food Technology, Safety and Health*	5			A:1	150
5	E039060	Sustainable Energy and Rational Use of Energy [en] *Jeroen Beeckman -- Department of Electronics and Information Systems*	4			A:2	120
6	I700265	Malting and Brewing Technology *Jessika De Clippeleer -- Department of Biotechnology*	4			A:1	120
7	I002607	Resource Recovery Technology [en] *Ramon Ganigué -- Department of Biotechnology*	6			A:2	180
8	I001561	Industrial Chemistry *Sven Mangelinckx -- Department of Green Chemistry and Technology*	3			A:2	75
9	I002776	Processes in Practice [en] *Eveline Volcke -- Department of Green Chemistry and Technology*	3			A:1	90

2.3 Chemical Analysis

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I001398	Instrumental Organic Analysis [en] *Sven Mangelinckx -- Department of Green Chemistry and Technology*	3			A:2	75
2	I002754	Environmental Chemistry: Organic Polluents *Christophe Walgraeve -- Department of Green Chemistry and Technology*	3			A:1	90
3	I002750	Isotopes in Biosciences [en] *Pascal Boeckx -- Department of Green Chemistry and Technology*	5			A:1	150
4	I002670	Biochemical and Functional Analysis of Foods *Bruno De Meulenaer -- Department of Food Technology, Safety and Health*	5			A:1	150
5	I002728	Chemical Food Safety *Bruno De Meulenaer -- Department of Food Technology, Safety and Health*	5			(A:1)[d]	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	E076460	Dare to Venture [en] *Johan Verrue -- Department of Marketing, Innovation and Organisation*	4			A:2	120
4	E076471	Dare to Start [en] *Frank Gielen -- 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] *Tarik Aouam -- Department of Business Informatics and Operations Management*	6			A:2	180
7	E076930	Financial and Cost Price Reporting in Companies *Faculteit Economie en Bedrijfskunde, Sophie Maussen -- Department of Accounting, Corporate Finance and Taxation*	6			A:1	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	I001944	Bio-ethics [en] *Farah Focquaert -- 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 *Frederik Ronsse -- 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 2023-2024	f: annually, from 2024-2025	i: annually, from 2025-2026
b: tri-annually	d: bi-annually, from 2023-2024	g: bi-annually, from 2024-2025	j: bi-annually, from 2025-2026
	e: tri-annually, from 2023-2024	h: tri-annually, from 2024-2025	k: tri-annually, from 2025-2026