

Master of Science in Chemistry -- Materials and Nano Chemistry

Language of instruction: English

Programme version 3

1 Courses Related to the Main Subject 108 credits

1.1 General Courses 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004140 Nanomaterials Chemistry <i>Klaartje De Buysser -- Department of Chemistry</i> Indicative price: € 100	6		1	A:1	180
2	C004141 Materials Physics <i>Zeger Hens -- Department of Chemistry</i> Indicative price: € 0	6		1	A:1	180
3	C004142 Surface Topology, Internal Structure and Composition <i>Mieke Adriaens -- Department of Chemistry</i> Indicative price: € 0	6		1	A:1	180
4	C004128 Molecular Physical Chemistry <i>Zeger Hens -- Department of Chemistry</i> Indicative price: € 15	6		1	A:1	180
5	C004143 Integrated Problems in Materials and Nanochemistry <i>Klaartje De Buysser -- Department of Chemistry</i> Indicative price: € 0	6		1	A:1	180

1.2 Specialization Courses 12 credits

Subscribe to 12 credit units from the following list, distributed over the first standard learning path as follows: 12 credit units in year 1.

Subject to approval by the faculty.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004144 Topics in Nanoscience <i>Pieter Geiregat -- Department of Chemistry</i> Indicative price: € 0	4		1	A:2	120
2	C004145 Functional Ceramics <i>Klaartje De Buysser -- Department of Chemistry</i> Indicative price: € 7	4		1	A:2	110
3	C004146 The f-Elements Indicative price: € 10	4		1		100
4	C004139 Polymer Materials: Biomedical and Sustainable Aspects <i>Peter Dubruel -- Department of Organic Chemistry</i> Indicative price: € 0	4		1	A:2	100
5	C004147 Advanced Quantum Chemistry <i>Patrick Bultinck -- Department of Chemistry</i> Indicative price: € 0	4		1	A:2	115
6	C004148 Computational Quantum Chemistry <i>Patrick Bultinck -- Department of Chemistry</i> Indicative price: € 0	8		1	A:2	210
7	C004149 Light and Matter <i>Pieter Geiregat -- Department of Chemistry</i> Indicative price: € 15	4		1	A:2	120
8	C004150 Bioinorganic Chemistry <i>Kristof Van Hecke -- Department of Chemistry</i>	4		1	A:2	120

[Indicative price: € 0](#)

9	C004151	Heterogeneous Catalysis	4	1	A:2	120
		<i>Pascal Van Der Voort -- Department of Chemistry</i>				
		Indicative price: € 100				
10	C004152	Structure Analysis by X-ray Diffraction	4	1	A:2	120
		<i>Jolien Dendooven -- Department of Solid State Sciences</i>				
		Indicative price: € 0				

1.3 Scientific and Professional Skills

66 credits

[Subscribe to 66 credit units from the following list, with 30 credit units with reference a.](#)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004165 Professional Skills of the Sustainable Chemist <i>Sandra Van Vlierberghe -- Department of Organic Chemistry</i> Indicative price: € 0	6		1	A:J	150
2	C004166 Master Thesis, Research Plan <i>Filip Du Prez -- Department of Organic Chemistry</i> Indicative price: unknown	9		1	A:2	270
3	C004167 Master Thesis, Research Project <i>Laszlo Vincze -- Department of Chemistry</i> Indicative price: unknown	21		2	A:1	630
4	C004168 Industrial Internship <i>Richard Hoogenboom -- Department of Organic Chemistry</i> Indicative price: unknown	30	a	2	A:2	900
5	C004191 Academic Internship <i>Anna Kaczmarek -- Department of Chemistry</i> Indicative price: unknown	30	a	2	A:2	900

2 Elective Courses

12 credits

[Subscribe to 12 credit units from no less than 1 and no more than 4 modules from the following list. Subject to approval by the faculty.](#)

2.1 In-depth Chemistry

[Subscribe to no more than 4 credit units from the specialization courses of the different main subject of the Master in Chemistry.](#)

2.2 Industry and Management

[Subscribe to no more than 12 credit units from the following list.](#)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E076460 Dare to Venture <i>Johan Verrue -- Department of Marketing, Innovation and Organisation</i> Indicative price: unknown	4		1	A:2	120
2	E076471 Dare to Start <i>Wouter Haerick -- Department of Information Technology</i> Indicative price: unknown	3		1	A:2	90
3	F000845 Business Administration [nl] <i>Mirjam Knockaert -- Department of Marketing, Innovation and Organisation</i> Indicative price: € 35	4		1	A:2	120
4	F000551 Business Skills <i>Mieke Audenaert -- Department of Marketing, Innovation and Organisation</i> Indicative price: € 46	4		1	C:2	120
5	C000833 Project Management [nl] <i>Mario Vanhoucke -- Department of Business Informatics and Operations Management</i> Indicative price: € 75	4		1	A:2	120
6	F000855 Organization Theory <i>Gosia Kozusznik -- Department of Marketing, Innovation and Organisation</i> Indicative price: € 46	4		1	A:2	120
7	F001010 Financial Markets and Institutions [nl] <i>Rudi Vander Vennet -- Department of Economics</i> Indicative price: € 0	5		1	A:2	150
8	F000752 Environmental Economics and Policy [nl] <i>Brent Bleys -- Department of Economics</i> Indicative price: € 55	4		1	B:2	120
9	F000859 Corporate Social Responsibility [nl] <i>Saskia Crucke -- Department of Marketing, Innovation and Organisation</i>	3		1	A:2	90

	Indicative price: € 0				
10	F000892	Innovation Management <i>Katrien Verleye -- Department of Marketing, Innovation and Organisation</i> Indicative price: € 55	3	1	A:2 90
11	E039060	Sustainable Energy and Rational Use of Energy <i>Filip Strubbe -- Department of Electronics and Information Systems</i> Indicative price: € 7	4	1	A:2 120
12	F000758	Economics [nl] <i>Bruno Merlevede -- Department of Economics</i> Indicative price: € 50	5	2	A:1 150
13	E076431	Introduction to Entrepreneurship <i>Petra Andries -- Department of Marketing, Innovation and Organisation</i> Indicative price: € 33	3	2	A:1 90
14	F000768	Marketing Management [nl] <i>Maggie Geuens -- Department of Marketing, Innovation and Organisation</i> Indicative price: € 40	6	2	A:1 180
15	F001009	Business Cycles and Growth [nl] <i>Freddy Heylen -- Department of Economics</i> Indicative price: € 65	5	2	A:1 150
16	F001008	Markets and Prices [nl] <i>Dirk Van de gaer -- Department of Economics</i> Indicative price: € 50	5	2	A:1 150
17	E065460	Rational Use of Materials <i>Tom Depover -- Department of Materials, Textiles and Chemical Engineering</i> Indicative price: unknown	5	2	A:1 150
18	C002275	Environmental Law [nl] <i>Hendrik Schoukens -- Department of European, Public and International Law</i> Indicative price: € 0	5	2	A:1 125
19	I001571	Environmental Legislation <i>Hendrik Schoukens -- Department of European, Public and International Law</i> Indicative price: unknown	3	2	A:1 75

2.3 Scientific broadening

Subscribe to no more than 12 credit units from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004169	Advanced Topics in Chemistry <i>Klaartje De Buysser -- Department of Chemistry</i> Indicative price: unknown	3	2	A:1	90
2	C004192	Green Chemistry Indicative price: € 0	3	2		75
3	C004193	History of Chemistry [nl] <i>Mieke Adriaens -- Department of Chemistry</i> Indicative price: € 0	3	2	A:2 ^a	75
4	C004009	History and Philosophy of Sciences [nl] <i>Maarten Van Dyck -- Department of Philosophy and Moral Sciences</i> Indicative price: € 0	3	2	B:2	90
5	C004194	Chemical Laboratory Skills [nl] <i>Katrien Strubbe -- Department of Chemistry</i> Indicative price: unknown	4	2	A:J	115
6	C004089	International Course Indicative price: unknown	3	2	A:J	90

2.4 Elective Courses UGent and other Universities

Subscribe to no more than 12 credit units from the study programmes of UGent including the [Ghent University elective courses](#) or from other universities of the Flemish Community, or (online) courses from [Erasmus+ partner universities](#).

Programme related study costs

Type: Laptop

Name: laptop

Indicative price: € 750

Optional: No

Fulltime standard learning track year: 1

Available through Student Association : No

Usability and Lifetime within the Course Unit : intensive

Usability and Lifetime within the Study Programme : intensive

Usability and Lifetime after the Study Programme : regularly

Type: Lab Material

Name: labcoat + safety goggles

Indicative price: € 55

Optional: No

Fulltime standard learning track year: 1

Available through Student Association : No

Usability and Lifetime within the Course Unit : intensive

Usability and Lifetime within the Study Programme : intensive

Usability and Lifetime after the Study Programme : intensive

Type: Excursion

Name: travel cost to VUB

Indicative price: € 120

Optional: No

Fulltime standard learning track year: 1

Additional information: Because this program is an alliance with the VUB, travel costs to the VUB need to be taken in consideration

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 course name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Croatian/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 is 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

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.