

Faculty of Sciences

Bachelor of Science in Chemistry

Language of instruction: Dutch

Programme version 4

## 1 General Courses 150 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C001541 Mathematics I: Fundamental Methods	5		1		125
2	C002691 Physics 1: Mechanics	5		1		138
3	C002608 Chemistry I: Structure of Matter	5		1		142
4	C003177 Cell Biology and Genetics <i>Geert De Jaeger -- Department of Plant Biotechnology and Bioinformatics</i>	5		1		125
5	C000509 Introduction to Organic Structures	5		1		134
6	C003080 Programming <i>Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics</i>	5		1	B:1	150
7	C001434 Mathematics II: Fundamental Methods in Mathematics and Statistics	5		1		150
8	C001782 Physics II: Waves, Optics and Thermodynamics	5		1		125
9	C002609 Chemistry II: Changes in Matter	5		1		142
10	C001281 Ecology	5		1		136
11	C002078 Geology: System Earth	5		1		128
12	C000127 Chemistry, Society and Ethics	5		1		128
13	C001266 Applied Mathematics for Chemists	5		2		150
14	C002132 Electromagnetism	5		2		125
15	C002119 Inorganic Chemistry: Basic Principles	5		2		125
16	C003078 Physical Chemistry I : Chemical Thermodynamics	5		2	A:2	150
17	C001785 Organic Chemistry: Reactivity 1	5		2		128
18	C000914 Analytical Chemistry: Principles	5		2		140
19	C001786 Organic Chemistry: Reactivity 2	5		2		128
20	C001416 General Biochemistry: Proteins	5		2		125
21	C001600 Quantum Chemistry	5		2	A:2	132
22	C001321 Structural Analysis	5		2		132
23	C001787 Organic Chemistry: Reactivity 3	5		2		128
24	C000452 Spectroscopic Methods of Analysis	5		2		145
25	C001125 Quality Assurance, Healthcare and Environmental Protection in the Chemical Industry	5		3		135
26	C000621 Introduction to Polymer Science <i>Filip Du Prez -- Department of Organic Chemistry</i>	5		3	A:1	125
27	C001587 Chemical Bond	5		3	A:1	132
28	C003079 Physical Chemistry II: Electrochemistry, Chemical Kinetics <i>Katrien Strubbe -- Department of Chemistry</i>	5		3	A:1	150
29	C002956 Synthetic Methods in Organic Chemistry [en] <i>Johan Van der Eycken -- Department of Organic Chemistry</i>	5		3	A:1	148
30	C002957 Analytical Separation Methods	5		3		125

## 2 Elective Courses 30 credits

Subscribe to 1 module from the following list.

## 2.1 Majors

30 credits

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

### 2.1.1 Major Research Profile

30 credits

Subscribe to 6 credit units from no less than 1 and no more than 2 modules from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C000030 Radiochemistry	3		3		84
2	C002354 Electrochemical Analysis Methods	3		3		75
3	C002074 Crystal Chemistry <i>Diederik Depla -- Department of Solid State Sciences</i>	3		3	A:2	84
4	C002355 Bachelor Project	15		3		405

#### 2.1.1.1 Elective Course List

Subscribe to courses for no more than 6 credit units to be chosen from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	F000845 Business Administration <i>Mirjam Knockaert -- Department of Marketing, Innovation and Organisation</i>	4		3	A:2	120
2	C000291 Commercial Law <i>Diederik Bruloot -- Department of Interdisciplinary Study of Law, Private Law and Business Law</i>	3		3		90
3	C002668 Scientific Communication in English [en] <i>Geert Jacobs -- Department of Linguistics</i>	5		3	A:2	150
4	C000713 Molecular Genetic Principles of Biotechnology	3		3		90
5	C002266 Geochemistry	5		3		150

#### 2.1.1.2 Elective Courses UGent

Subscribe to no more than 6 credit units from the study programmes of UGent, distributed over the first standard learning path as follows: no more than 6 credit units in year 3, and over the second standard learning path as follows: no more than 6 credit units in year 6.

### 2.1.2 Major Interdisciplinary Profile

30 credits

Subscribe to 15 credit units from no less than 1 and no more than 2 modules from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003244 Bachelor Project	15		3		405

#### 2.1.2.1 Elective Courses UGent

Subscribe to no more than 15 credit units to be chosen from other study programmes of the faculty of Science, faculty of Pharmaceutical Sciences or faculty of (Bioscience) Engineering allowing a focus on another discipline of natural sciences, distributed over the first standard learning path as follows: no more than 15 credit units in year 3, and over the second standard learning path as follows: no more than 15 credit units in year 6.

#### 2.1.2.2 Elective Courses of an University of the Flemish Community

Subscribe to no more than 15 credit units to be chosen from the study programme from another university of the Flemish Community or from the study programme from another university college allowing a focus on another discipline of natural sciences, distributed over the first standard learning path as follows: no more than 15 credit units in year 3, and over the second standard learning path as follows: no more than 15 credit units in year 6.

### 2.1.3 Major Education

30 credits

Courses with reference a are part of the Specific Teacher Training Programme in Chemistry.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H001806 Teaching Methodology: Sciences	4	a	3	A:2	120
2	C003571 Big Ideas in Natural Sciences	4		3		120
3	C002355 Bachelor Project	15		3		405

#### 2.1.3.1 Elective Courses UGent

Subscribe to 7 credit units from the study programmes of UGent, distributed over the first standard learning path as follows: 7 credit units in year 3, and over the second standard learning path as follows: 7 credit units in year 6.

## 2.2 International Exchange

30 credits

Subscribe to 30 credit units to be chosen from the study programmes of another European institute for higher education, including a Bachelor Project that will be completed abroad, distributed over the first standard learning path as follows: 30 credit units in year 3, and over the second standard learning path as follows: 30 credit units in year 6. Subject to approval by the faculty.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003619 Study Programme Abroad [en, nl] <i>Anna Kaczmarek -- Department of Chemistry</i>	30		3	A:2	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 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 2022-2023	f: annually, from 2023-2024	i: annually, from 2024-2025
b: tri-annually	d: bi-annually, from 2022-2023	g: bi-annually, from 2023-2024	j: bi-annually, from 2024-2025
	e: tri-annually, from 2022-2023	h: tri-annually, from 2023-2024	k: tri-annually, from 2024-2025