

Faculty of Sciences

Bachelor of Science in Biochemistry and Biotechnology

Language of instruction: Dutch

Programme version 15

1 General Courses 144 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C000514 Mathematics I <i>Koen Thas -- Department of Mathematics: Algebra and Geometry</i>	5		1	A:1	142
2	C001837 Mathematics II <i>Koen Thas -- Department of Mathematics: Algebra and Geometry</i>	5		1	A:2	142
3	C000057 Physics I <i>Bartel Van Waeyenberge -- Department of Solid State Sciences</i>	5		1	A:1	150
4	C000673 Physics II <i>Bartel Van Waeyenberge -- Department of Solid State Sciences</i>	5		1	A:2	150
5	C004091 General Chemistry <i>Klaartje De Buysser -- Department of Chemistry</i>	10		1	A:J	284
6	C003943 Chemical Structures <i>Zeger Hens -- Department of Chemistry</i>	5		1	A:1	134
7	C003481 Biodiversity of Plants s.L. (sensu Linnaeo) <i>Annemieke Verbeken -- Department of Biology</i>	5		1	A:1	138
8	C003761 Biodiversity of Animals <i>Tom Moens -- Department of Biology</i>	5		1	A:2	138
9	C003945 General Cell Biology <i>Geert Berx -- Department of Molecular Biology</i>	5		1	A:1	140
10	C003944 General Biochemistry: Molecules of Life <i>Bart Devreese -- Department of Biochemistry, Physiology and Microbiology</i>	5		1	A:2	125
11	C003390 Introduction to Life Sciences <i>Peter Vandenabeele -- Department of Molecular Biology</i>	5		1	A:2	150
12	C004408 Introduction to Biostatistics <i>Lieven Clement -- Department of Mathematics, Computer Science and Statistics</i>	5		2	A:1	138
13	C001815 Organic Chemistry: Introduction to Reactivity <i>Johan Winne -- Department of Organic Chemistry</i>	5		2	A:1	148
14	C002140 Analytical Chemistry <i>Mieke Adriaens -- Department of Chemistry</i>	5		2	A:1	149
15	C003361 General Microbiology <i>Peter Vandamme -- Department of Biochemistry, Physiology and Microbiology</i>	4		2	A:1	107
16	C003362 Molecular Biology I <i>Wim Declercq -- Department of Molecular Biology</i>	4		2	A:1	117
17	C003080 Programming <i>Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics</i>	5	UKV	2	A:1	150
18	C003364 Integrated Practicum: Basic Analysis of Microbial and Eukaryotic Cells <i>Peter Vandamme -- Department of Biochemistry, Physiology and Microbiology</i>	3		2	A:1	75
19	C000227 Plant Physiology <i>Dominique Van Der Straeten -- Department of Biology</i>	5		2	A:2	145
20	C002369 Biomedical Physiology <i>Dirk de Graaf -- Department of Biochemistry, Physiology and Microbiology</i>	5		2	A:2	145

21	C003365	Biochemistry: Metabolism I <i>Bart Devreese -- Department of Biochemistry, Physiology and Microbiology</i>	4	2	A:2	105
22	C003366	Gene Technology I <i>Geert Berx -- Department of Molecular Biology</i>	4	2	A:2	110
23	C003367	Genetics I <i>Sofie Goormachtig -- Department of Plant Biotechnology and Bioinformatics</i>	4	2	A:2	120
24	C003946	Integrated Practicum: Basic Biotechnology <i>Bartel Vanholme -- Department of Plant Biotechnology and Bioinformatics</i>	3	2	A:2	90
25	C003379	Immunology <i>Martin Guillems -- Department of Molecular Biology</i>	4	2	A:2	109
26	C003369	Biochemistry: Metabolism II <i>Leander Meuris -- Department of Biochemistry, Physiology and Microbiology</i>	4	3	A:1	107
27	C003370	Molecular Biology II <i>Rudi Beyaert -- Department of Molecular Biology</i>	4	3	A:1	105
28	C004096	Molecular Cell Biology [en] <i>Roosmarijn Vandenbroucke -- Department of Molecular Biology</i>	5	3	A:1	130
29	C003372	Genetics II <i>Wout Boerjan -- Department of Plant Biotechnology and Bioinformatics</i>	4	3	A:1	120
30	C003375	Integrated Practicum: Advanced Biotechnology, Part I <i>Daniël Van Damme -- Department of Plant Biotechnology and Bioinformatics</i>	3	3	A:1	75
31	C003376	Microbial Evolution and Diversity <i>Peter Vandamme -- Department of Biochemistry, Physiology and Microbiology</i>	4	3	A:1	108

2 Elective Courses

36 credits

Subscribe to 1 module from the following list. Subject to approval by the faculty.
Students who have followed the Educational Track, can enter directly into the educational master's programme.

2.1 Research Track

Subscribe to 4 credit units from 1 module from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004097 Analytical Biochemistry [en, nl] <i>Bart Devreese -- Department of Biochemistry, Physiology and Microbiology</i>	3		3	A:1	90
2	C003374 Integrated Practicum: Biochemistry-Microbiology <i>Bart Devreese -- Department of Biochemistry, Physiology and Microbiology</i>	3		3	A:1	90
3	C003377 Plant Molecular Biology [en, nl] <i>Lieven De Veylder -- Department of Plant Biotechnology and Bioinformatics</i>	4		3	A:2	109
4	C003762 Developmental Biology <i>Kris Vleminckx -- Department of Molecular Biology</i>	4		3	A:2	109
5	C004092 Bioinformatics I [en] <i>Kathleen Marchal -- Department of Plant Biotechnology and Bioinformatics</i>	4		3	A:2	120
6	C003378 Gene Technology II <i>Geert De Jaeger -- Department of Plant Biotechnology and Bioinformatics</i>	4		3	A:2	115
7	C003763 Integrated Practicum: Advanced Biotechnology, Part II <i>Jonathan Maelfait -- Department of Molecular Biology</i>	4		3	A:2	100
8	C003382 Bachelor's Project <i>Sofie Goormachtig -- Department of Plant Biotechnology and Bioinformatics</i>	6		3	A:2	165

2.1.1 Elective Course List

Subscribe to no less than 4 credit units from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C002668 Scientific Communication in English [en] <i>Geert Jacobs -- Department of Linguistics</i>	5		3	A:2	150
2	C004395 Professional Literature [en] <i>Inge De Clercq -- Department of Plant Biotechnology and Bioinformatics</i>	4		3	A:2	120

2.1.2 Elective Courses UGent and other universities

Subscribe to 4 credit units from the bachelor's programmes of UGent or (online) courses from [Erasmus+ partner universities](#), distributed over the first standard learning path as follows: 4 credit units in year 3.

2.2 Educational Track

Nr	Course	CRDT	Ref	MT1	Session	Study
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1	H002169	Powerful Learning Environments <i>Bram De Wever -- Department of Educational Studies</i>	6	3	A:1	180
2	H002175	Teaching Methodology: Sciences <i>Katrien Strubbe -- Department of Chemistry</i>	6	3	A:J	180
3	H002170	Reference Internship: Sciences <i>Katrien Strubbe -- Department of Chemistry</i>	3	3	A:J	90
4	C004092	Bioinformatics I [en] <i>Kathleen Marchal -- Department of Plant Biotechnology and Bioinformatics</i>	4	3	A:2	120
5	C003378	Gene Technology II <i>Geert De Jaeger -- Department of Plant Biotechnology and Bioinformatics</i>	4	3	A:2	115
6	C003763	Integrated Practicum: Advanced Biotechnology, Part II <i>Jonathan Maelfait -- Department of Molecular Biology</i>	4	3	A:2	100
7	C003382	Bachelor's Project <i>Sofie Goormachtig -- Department of Plant Biotechnology and Bioinformatics</i>	6	3	A:2	165

2.2.1 Elective Courses Biochemistry and Biotechnology

[Subscribe to 4 credit units from the following list.](#)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003377 Plant Molecular Biology [en, nl] <i>Lieven De Veylder -- Department of Plant Biotechnology and Bioinformatics</i>	4		3	A:2	109
2	C003762 Developmental Biology <i>Kris Vleminckx -- Department of Molecular Biology</i>	4		3	A:2	109

2.3 Research-Internationalisation Track (GUGC, South-Korea)

[1st semester courses are taught at UGent.](#)

[2nd semester courses are taught at GUGC \(South-Korea\).](#)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004097 Analytical Biochemistry [en, nl] <i>Bart Devreese -- Department of Biochemistry, Physiology and Microbiology</i>	3		3	A:1	90
2	C003374 Integrated Practicum: Biochemistry-Microbiology <i>Bart Devreese -- Department of Biochemistry, Physiology and Microbiology</i>	3		3	A:1	90
3	O000180 Bioinformatics 2 [en] <i>Zhen Li -- Department of Plant Biotechnology and Bioinformatics</i>	5		3	A:2	150
4	O000145 Plant Biotechnology [en] <i>Godelieve Gheysen -- Department of Biotechnology</i>	4		3	A:2	108
5	O000024 Economics and Marketing [en] <i>Christine Yung Hung -- Department of Agricultural Economics</i>	5		3	A:2	150
6	O000165 Bachelor's Project [nl, en] <i>Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	12		3	B:2	360

2.3.1 Elective Course List

[Subscribe to 1 courses from the following list.](#)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003762 Developmental Biology <i>Kris Vleminckx -- Department of Molecular Biology</i>	4		3	A:2	109
2	C003377 Plant Molecular Biology [en, nl] <i>Lieven De Veylder -- Department of Plant Biotechnology and Bioinformatics</i>	4		3	A:2	109
3	O000168 Experimental Food Biochemistry [en] <i>Mahta Mirzaei -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	A:2	150

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 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