

# Study Programme

Academic year 2024-2025

Faculty of Sciences
Bachelor of Science in Mathematics

Language of instruction: Dutch

Programme version 16

1	Genera	Courses			156	credits
Nr	Course		CRDT	Ref MT1	Session	Study
1	C003554	Linear Algebra and Geometry I  Arne Van Antwerpen Department of Mathematics: Algebra and Geometry	6	1	A:1	180
2	C003574	Analysis I  Jasson Vindas Diaz Department of Mathematics: Analysis, Logic and Discrete Mathematics	6	1	A:1	180
3	C003550	Discrete Mathematics I Leo Storme Department of Mathematics: Analysis, Logic and Discrete Mathematics	6	1	A:1	180
4	C003770	Programming Kris Coolsaet Department of Mathematics, Computer Science and Statistics	6	1	A:1	180
5	C003552	Computer Project Mathematics Tom De Medts Department of Mathematics: Algebra and Geometry	4	1	A:1	100
6	C003555	Linear Algebra and Geometry II  Hendrik Van Maldeghem Department of Mathematics, Computer Science and Statistics	6	1	A:2	165
7	C003575	Analysis II Hans Vernaeve Department of Mathematics: Analysis, Logic and Discrete Mathematics	8	1	A:2	200
8	C003551	Discrete Mathematics II Bart De Bruyn Department of Mathematics, Computer Science and Statistics	6	1	A:2	165
9	C004210	Theoretical Mechanics  Dimitri Van Neck Department of Physics and Astronomy	6	1	A:2	180
10	C003607	General Physics Henk Vrielinck Department of Solid State Sciences	6	1	A:2	165
11	C003557	Algebra I Tom De Medts Department of Mathematics: Algebra and Geometry	6	2	A:1	180
12	C003568	Complex Analysis  Hans Vernaeve Department of Mathematics: Analysis, Logic and Discrete Mathematics	6	2	A:1	165
13	C002794	Algorithms and Data Structures  Veerle Fack Department of Mathematics, Computer Science and Statistics	6	2	A:1	165
14	C003558	Statistics I Kelly Van Lancker Department of Mathematics, Computer Science and Statistics	6	2	A:1	165
15	C004420	Differential Geometry Frederik Broucke Department of Mathematics: Analysis, Logic and Discrete Mathematics	6	2	A:2	165
16	C003569	Topology and Metric Spaces  Hans Vernaeve Department of Mathematics: Analysis, Logic and Discrete Mathematics	6	2	A:2	180
17	C003608	Numerical Analysis  Julian Köllermeier Department of Mathematics, Computer Science and Statistics	6	2	A:2	165
18	C003559	Statistics II: Project  Martial Luyts Department of Mathematics, Computer Science and Statistics	6	2	A:2	165
19	C000313	Projective Geometry Bart De Bruyn Department of Mathematics: Algebra and Geometry	6	3	A:1	165
20	C003570	Function Spaces Sigiswald Barbier Department of Electronics and Information Systems	6	3	A:2	180

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21 C003563	Optimisation  Veerle Fack Department of Mathematics, Computer Science and Statistics	6	3	A:1	165
22 C003560	Statistics III: Regression Analysis [en, nl] Stijn Vansteelandt Department of Mathematics, Computer Science and Statistics	6	3	A:1	165
23 C004110	Algebra II  Arne Van Antwerpen Department of Mathematics, Computer Science and Statistics	6	3	A:2	180
24 C003562	Logic Andreas Weiermann Department of Mathematics: Analysis, Logic and Discrete Mathematics	6	3	A:2	165
25 C004010	Mathematical Modeling  Marnix Van Daele Department of Mathematics, Computer Science and Statistics	6	3	A:1	180
26 C003573	Bachelor Project N. N.	6	3	A:2	165

2 Minors 18 credits

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

## 2.1 Minor Life Sciences

Subscribe to 18 credit units from the following list, distributed over the first standard learning path as follows:

- 12 credit units in year 2,
- 6 credit units in year 3.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C003625	Population Processes Luc Lens Department of Biology	6			A:1	180
2	C003390	Introduction to Life Sciences Peter Vandenabeele Department of Molecular Biology	6			A:2	165
3	C001479	Introduction to Bioinformatics  Kathleen Marchal Department of Plant Biotechnology and Bioinformatics	6			A:2	165

## 2.2 Minor Economics

Subscribe to 18 credit units from the following list, distributed over the first standard learning path as follows:

- 12 credit units in year 2,
- 6 credit units in year 3.

Nr	Course		CRDT Ref	MT1 Session	Study
1	F000758	Economics Bruno Merlevede Department of Economics	6	A:1	165
2	F000804	Financial Mathematics  Arnaud Devos Department of Telecommunications and Information Processing	6	A:2	180
3	F000081	Microeconomics Dirk Van de gaer Department of Economics	6	A:1	180
4	F001007	Advanced Microeconomics: Game Theory [en, nl]  Dirk Van de gaer Department of Economics	6	A:1	180

# 2.3 Minor Informatics

Subscribe to 18 credit units from the following list, distributed over the first standard learning path as follows:

- 12 credit units in year 2,
- 6 credit units in year 3.

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Nr	Course		CRDT	Ref	MT1	Session	Study
1	C003771	Databases	6			A:1	180
		Guy De Tré Department of Telecommunications and Information Processing					
2	C003772	Object Oriented Programming	6			A:2	180
		Kris Coolsaet Department of Mathematics, Computer Science and Statistics					
3	C003777	Algorithms and Data Structures 2	6			A:1	180
		Gunnar Brinkmann Department of Mathematics, Computer Science and Statistics					
4	C003776	System Programming	6			A:1	180
		Filip De Turck Department of Information Technology					

# 2.4 Minor Physics

Subscribe to 18 credit units from the following list, distributed over the first standard learning path as follows:

- 12 credit units in year 2,
- 6 credit units in year 3.

Ν			CRDT		Session	Study
1	C002240	Quantum Mechanics 1	6		A:1	180
		Jan Ryckebusch Department of Physics and Astronomy				

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2	C004206	Stars and Planets Sven De Rijcke Department of Physics and Astronomy	6	A:2	180
3	C002245	Quantum Mechanics 2 Dimitri Van Neck Department of Physics and Astronomy	6	A:1	180
4	C004214	Galaxies Ilse De Looze Department of Physics and Astronomy	6	A:2	180
5	C004216	Relativity and Electromagnetism [en]  Archisman Ghosh Department of Physics and Astronomy	6	A:2	180

#### 2.5 Minor Education

Subscribe to 18 credit units from the following list, distributed over the first standard learning path as follows:

- 12 credit units in year 2,
- 6 credit units in year 3.

Nr	Course		CRDT	Ref MT1	Session	Study
1	H002169	Powerful Learning Environments  Bram De Wever Department of Educational Studies	6	2	A:1	180
2	H002175	Teaching Methodology: Sciences Katrien Strubbe Department of Chemistry	6	3	A:J	180
3	H002170	Reference Internship: Sciences Katrien Strubbe Department of Chemistry	3	2	A:J	90
4	C004093	Mathematical Skills and Know-how Koen Thas Department of Mathematics, Computer Science and Statistics	3	2	A:2	85

3 Elective Courses 6 credits

## 3.1 Elective Courses UGent or other Universities

Subscribe to 6 credit units from the study programmes of UGent including the <a href="Ghent University elective courses">Ghent University elective courses</a>, other universities of the Flemish Community or, <a href="Erasmus+ partner universities">Erasmus+ partner universities</a> including the <a href="ENLIGHT">ENLIGHT</a> (online) elective courses. Distributed over the first standard learning path as follows: 6 credit units in year 3. Subject to approval by the faculty.

# 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 2025-2026 f: annually, from 2026-2027 i: annually, from 2027-2028 b: tri-annually d: bi-annually, from 2025-2026 g: bi-annually, from 2026-2027 j: bi-annually, from 2027-2028 e: tri-annually, from 2025-2026 h: tri-annually, from 2026-2027 k: tri-annually, from 2027-2028

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