Study Programme

Academic year 2021-2022

GHENT UNIVERSITY

Faculty of Sciences
Bachelor of Science in Mathematics

Language of instruction: Dutch
Programme version 13

1 General Courses — 156 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C003554	Linear Algebra and Geometry I	6	1		A:1	180
	Andreas Weiermann -- Department of Mathematics: Analysis, Logic and Discrete Mathematics						
2	C003574	Analysis I	6	1		A:1	180
	Jasson Vindas Diaz -- Department of Mathematics: Analysis, Logic and Discrete Mathematics						
3	C003550	Discrete Mathematics I	6	1		A:1	180
	Leo Storme -- Department of Mathematics: Analysis, Logic and Discrete Mathematics						
4	C003770	Programming	6	1		A:1	180
	Kris Coolsaet -- Department of Mathematics, Computer Science and Statistics						
5	C003552	Computer Project Mathematics	4	1		A:1	100
	Tom De Medts -- Department of Mathematics: Algebra and Geometry						
6	C003555	Linear Algebra and Geometry II	6	1		A:2	165
	Anneleen De Schepper -- Department of Mathematics: Algebra and Geometry						
7	C003575	Analysis II	8	1		A:2	200
	Hans Vernaeve -- Department of Mathematics: Analysis, Logic and Discrete Mathematics						
8	C003551	Discrete Mathematics II	6	1		A:2	165
	Bart De Bruyn -- Department of Mathematics: Algebra and Geometry						
9	C003133	Introduction to Theoretical Physics	6	1		A:2	180
	Dimitri Van Neck -- Department of Physics and Astronomy						
10	C003607	General Physics	6	1		A:2	165
	Henk Vrielinck -- Department of Solid State Sciences						
11	C003557	Algebra I	6	2		A:1	180
	Tom De Medts -- Department of Mathematics: Algebra and Geometry						
12	C003568	Complex Analysis	6	2		A:1	165
	Hans Vernaeve -- Department of Mathematics: Analysis, Logic and Discrete Mathematics						
13	C002794	Algorithms and Data Structures	6	2		A:1	165
	Veerle Fack -- Department of Mathematics, Computer Science and Statistics						
14	C003558	Statistics I	6	2		A:1	165
	Stijn Vansteelandt -- Department of Mathematics, Computer Science and Statistics						
15	C003556	Differential Geometry I	6	2		A:2	165
	Tom Mestdag -- Department of Mathematics: Analysis, Logic and Discrete Mathematics						
16	C003569	Topology and Metric Spaces	6	2		A:2	180
	Hans Vernaeve -- Department of Mathematics: Analysis, Logic and Discrete Mathematics						
17	C003608	Numerical Analysis	6	2		A:2	165
	Joris Van der Jeugt -- Department of Mathematics, Computer Science and Statistics						
18	C003559	Statistics II: Project	6	2		A:2	165
	Martial Luyts -- Department of Mathematics, Computer Science and Statistics						
19	C000313	Projective Geometry	6	3		A:1	165
	Bart De Bruyn -- Department of Mathematics: Algebra and Geometry						
20	C003570	Function Spaces	6	3		A:1	180
	Hendrik De Bie -- Department of Electronics and Information Systems						

Nr	Course		CRDT	Ref	MT1	Session	Study
21	C003563	Optimisation	6	3		A:1	165
		Veerle Fack -- Department of Mathematics, Computer Science and Statistics					
22	C003560	Statistics III: Regression Analysis [en, nl]	6	3		A:1	165
		Stijn Vansteelandt -- Department of Mathematics, Computer Science and Statistics					
23	C004110	Algebra II	6	3		A:2	180
		Tom De Medts -- Department of Mathematics: Algebra and Geometry					
24	C003562	Logic	6	3		A:2	165
		Andreas Weiermann -- Department of Mathematics: Analysis, Logic and Discrete Mathematics					
25	C004010	Mathematical Modeling	6	3		A:2	180
		Marnix Van Daele -- Department of Mathematics, Computer Science and Statistics					
26	C003573	Bachelor Project	6	3		A:2	165
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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	6			A:1	180
		Luc Lens -- Department of Biology					
2	C003390	Introduction to Life Sciences	6			A:2	165
		Peter Vandenabeele -- Department of Molecular Biology					
3	C002688	Computational Biology	6				165
4	C001479	Introduction to Bioinformatics	6			A:2	165
		Kathleen Marchal -- Department of Plant Biotechnology and Bioinformatics					

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	6			A:1	165
		Bruno Merlevede -- Department of Economics					
2	F000804	Financial Mathematics	6			A:2	180
		Michèle Vanmaele -- Department of Mathematics, Computer Science and Statistics					
3	F000446	Markets and Prices	6			A:1	180
		Dirk Van de gaer -- Department of Economics					
4	C002995	Game Theory	6			A:1	165
		Dirk Van de gaer -- Department of Economics					

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.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E018110	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.

Nr	Course		CRDT	Ref	MT1	Session	Study

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C002240	Quantum Mechanics 1	6			A:1	180
		Jan Ryckebusch -- Department of Physics and Astronomy					
2	C003016	Introduction to Astronomy	6			A:2	180
		Sven De Rijcke -- Department of Physics and Astronomy					
3	C002245	Quantum Mechanics 2	6			A:1	180
		Henri Verschelde -- Department of Physics and Astronomy					
4	C002994	Extragalactic Astronomy	6			A:2	180
		Maarten Baes -- Department of Physics and Astronomy					
5	C002133	Electromagnetism	6			A:2	180
		Jutho Haegeman -- Department of Physics and Astronomy					

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	6	2		A:1	180
		Bram De Wever -- Department of Educational Studies					
2	H002175	Teaching Methodology: Sciences	6	3		A:J	180
		Katrien Strubbe -- Department of Chemistry					
3	H002170	Reference Internship: Sciences	3	2		A:J	90
		Katrien Strubbe -- Department of Chemistry					
4	C004093	Mathematical Skills and Know-how	3	2		A:2	85
		Koen Thas -- Department of Mathematics: Algebra and Geometry					

3 Elective Courses   6 credits

3.1 Elective courses Flemish Community

Subscribe to 6 credit units from the study programmes of UGent or from other Flemish universities, 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 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