

Faculty of Sciences

Bachelor of Science in Mathematics

Language of instruction: Dutch

Programme version 18

## 1 General Courses

156 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003554 Linear Algebra and Geometry I <i>Tom De Medts -- Department of Mathematics, Computer Science and Statistics</i>	6		1	A:1	180
2	C003574 Analysis I <i>Jasson Vindas Diaz -- Department of Mathematics: Analysis, Logic and Discrete Mathematics</i>	6		1	A:1	180
3	C003550 Discrete Mathematics I <i>Leo Storme -- Department of Mathematics: Analysis, Logic and Discrete Mathematics</i>	6		1	A:1	180
4	C004646 Object-oriented Programming <i>Kris Coolsaet -- Department of Mathematics, Computer Science and Statistics</i>	6		1	A:1	180
5	C003552 Computer Project Mathematics <i>Tom De Medts -- Department of Mathematics, Computer Science and Statistics</i>	4		1	A:1	100
6	C003555 Linear Algebra and Geometry II <i>Koen Thas -- Department of Mathematics, Computer Science and Statistics</i>	6		1	A:2	165
7	C003575 Analysis II <i>Hans Vernaeve -- Department of Mathematics: Analysis, Logic and Discrete Mathematics</i>	8		1	A:2	200
8	C003551 Discrete Mathematics II <i>Bart De Bruyn -- Department of Mathematics, Computer Science and Statistics</i>	6		1	A:2	165
9	C004210 Theoretical Mechanics <i>Sven De Rijcke -- Department of Physics and Astronomy</i>	6		1	A:2	180
10	C003607 General Physics <i>Henk Vrielinck -- Department of Solid State Sciences</i>	6		1	A:2	165
11	C003557 Algebra I <i>Tom De Medts -- Department of Mathematics, Computer Science and Statistics</i>	6		2	A:1	180
12	C003568 Complex Analysis <i>Hans Vernaeve -- Department of Mathematics: Analysis, Logic and Discrete Mathematics</i>	6		2	A:1	165
13	C002794 Algorithms and Data Structures <i>Veerle Fack -- Department of Mathematics, Computer Science and Statistics</i>	6		2	A:1	165
14	C003558 Statistics I <i>Kelly Van Lancker -- Department of Mathematics, Computer Science and Statistics</i>	6		2	A:1	165
15	C004420 Differential Geometry <i>Karel Van Bockstal -- Department of Mathematics: Analysis, Logic and Discrete Mathematics</i>	6		2	A:2	165
16	C003569 Topology and Metric Spaces <i>Hans Vernaeve -- Department of Mathematics: Analysis, Logic and Discrete Mathematics</i>	6		2	A:2	180
17	C003608 Numerical Analysis <i>Julian Köllmermeier -- Department of Mathematics, Computer Science and Statistics</i>	6		2	A:2	165
18	C003559 Statistics II: Project [en] <i>Oliver Dukes -- Department of Mathematics, Computer Science and Statistics</i>	6		2	A:2	165
19	C000313 Projective Geometry <i>Bart De Bruyn -- Department of Mathematics, Computer Science and Statistics</i>	6		3	A:1	165
20	C003570 Function Spaces <i>Hendrik De Bie -- Department of Electronics and Information Systems</i>	6		3	A:2	180

21	C003563	Optimisation <i>Veerle Fack -- Department of Mathematics, Computer Science and Statistics</i>	6		3	A:1	165
22	C003560	Statistics III: Regression Analysis [en, nl] <i>Stijn Vansteelandt -- Department of Mathematics, Computer Science and Statistics</i>	6		3	A:1	165
23	C004110	Algebra II <i>Jari Desmet -- Department of Mathematics, Computer Science and Statistics</i>	6		3	A:2	180
24	C003562	Logic <i>Andreas Weiermann -- Department of Mathematics: Analysis, Logic and Discrete Mathematics</i>	6		3	A:1	165
25	C004010	Mathematical Modeling <i>Marnix Van Daele -- Department of Mathematics, Computer Science and Statistics</i>	6		3	A:2	180
26	C003573	Bachelor Project	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 <i>Luc Lens -- Department of Biology</i>	6			A:1	180
2	C003390 Introduction to Life Sciences <i>Peter Vandenabeele -- Department of Molecular Biology</i>	6			A:2	165
3	C001479 Introduction to Bioinformatics [en] <i>Kathleen Marchal -- Department of Plant Biotechnology and Bioinformatics</i>	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	F001019 Economics <i>Bruno Merlevede -- Department of Economics</i>	6			A:1	180
2	F000804 Financial Mathematics <i>Michèle Vanmaele -- Department of Mathematics, Computer Science and Statistics</i>	6			A:2	180
3	F000081 Microeconomics <i>Dirk Van de gaer -- Department of Economics</i>	6			A:1	180
4	F001007 Advanced Microeconomics: Game Theory [en, nl] <i>Dirk Van de gaer -- Department of Economics</i>	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.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003771 Databases <i>Guy De Tré -- Department of Telecommunications and Information Processing</i>	6			A:1	180
2	C004647 Software Development <i>Kris Coolsaet -- Department of Mathematics, Computer Science and Statistics</i>	6			A:2	180
3	C003777 Algorithms and Data Structures 2 <i>Kris Coolsaet -- Department of Mathematics, Computer Science and Statistics</i>	6			A:1	180
4	C003776 System Programming <i>Filip De Turck -- Department of Information Technology</i>	6			A:2	180
5	C004667 Introduction to Machine Learning <i>Yvan Saeys -- Department of Mathematics, Computer Science and Statistics</i>	6			A:1	180

### 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
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1	C002240	Quantum Mechanics 1 <i>Jan Ryckebusch -- Department of Physics and Astronomy</i>	6			A:1	180
2	C004206	Stars and Planets <i>Sven De Rijcke -- Department of Physics and Astronomy</i>	6			A:2	180
3	C002245	Quantum Mechanics 2 <i>Dimitri Van Neck -- Department of Physics and Astronomy</i>	6			A:1	180
4	C004214	Galaxies <i>Ilse De Looze -- Department of Physics and Astronomy</i>	6			A:2	180
5	C004216	Relativity and Electromagnetism [en] <i>Archisman Ghosh -- Department of Physics and Astronomy</i>	6			A:2	180

## 2.5 Minor Education

Subscribe to 18 credit units from the following list, with 9 credit units with reference a, distributed over the first standard learning path as follows:

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

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H002476 Powerful Learning Environments <i>Bram De Wever -- Department of Educational Studies</i>	6		2	A:1	180
2	H002493 Teaching Methodology: Mathematics <i>Hendrik Van Maldeghem -- Department of Mathematics, Computer Science and Statistics</i>	9	a	3	J:J	270
3	H002608 Teaching Methodology: STEM Focus STEM <i>Katrien Strubbe -- Department of Chemistry</i>	9	a	3	J:J	270
4	C004093 Mathematical Skills and Know-how <i>Koen Thas -- Department of Mathematics, Computer Science and Statistics</i>	3		3	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 [Ghent University elective courses](#), other universities of the Flemish Community or, [Erasmus+ partner universities including the ENLIGHT \(online\) elective courses](#). 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 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 2027-2028	f: annually, from 2028-2029	i: annually, from 2029-2030
b: tri-annually	d: bi-annually, from 2027-2028	g: bi-annually, from 2028-2029	j: bi-annually, from 2029-2030
	e: tri-annually, from 2027-2028	h: tri-annually, from 2028-2029	k: tri-annually, from 2029-2030