

# **Study Programme**

### Academic year 2024-2025

#### **Faculty of Sciences**

Exchange Programme in Mathematics (master's level)

## Language of instruction: English Programme version 9

#### General Courses

The exchange programme contains a preferred list of English courses taught at UGent of the Master of Science in Mathematics. Most of the courses in the main programme are taught in Dutch; in such cases, English course material and guidance can sometimes be provided. Internships are not possible for incoming mathematics Erasmus students.

Tips for completing your Learning Agreement:

• Please check the <u>departmental rules</u> for incoming students.

• A minimum number of 20 ECTS per semester (or 40 ECTS per year) should be chosen from the mathematics programme.

• Short or long term (up to 1 year) research projects can be chosen. Students should have an agreement with a promoter at the faculty of Sciences (UGent) prior to sending their learning agreement, and include the letter of acceptance with their application.

Nr	Course		CRDT		Session	Study
1	C004549	Advanced Topics in Group Theory Tom De Medts Department of Mathematics: Algebra and Geometry	6		(A:2) <sup>d</sup>	165
2	C002678	Statistical Inference Oliver Dukes Department of Applied Mathematics and Computer Science	6		A:2	165
3	C002950	Survival Analysis Els Goetghebeur Department of Applied Mathematics and Computer Science	5		A:2	150
4	C004413	Causal Machine Learning Stijn Vansteelandt Department of Applied Mathematics and Computer Science	6 9		A:2	180
5	C004547	Logic II Andreas Weiermann Department of Mathematics: Analysis, Logic and Discrete	6 e Mathe	ematics	A:2	165
6	C003668	Quantum Computing Frank Verstraete Department of Physics and Astronomy	6		A:2	180
7	C003758	Machine Learning Yvan Saeys Department of Applied Mathematics and Computer Science	6		A:1	180
8	C004109	Functional Analysis Jasson Vindas Diaz Department of Mathematics: Analysis, Logic and Discrete	6 Mathe	matics	A:1ª	180
9	C003080	Programming Peter Dawyndt Department of Applied Mathematics and Computer Science	5	UKV	C:1	150
10	C002337	Finite Geometry Bart De Bruyn Department of Mathematics: Algebra and Geometry	6		(A:2) <sup>d</sup>	165
11	C003013	Linear Algebraic Groups Tom De Medts Department of Mathematics: Algebra and Geometry	6		A:2	165
12	C004109	Functional Analysis Jasson Vindas Diaz Department of Mathematics: Analysis, Logic and Discrete	6 Mathe	matics	A:1ª	180
13	C003824	Analytic Number Theory [en, nl] Jasson Vindas Diaz Department of Mathematics: Analysis, Logic and Discrete	6 Mathe	matics	A:2	165
14	C000802	Partial Differential Equations Michael Ruzhansky Department of Mathematics: Analysis, Logic and Discrete	6 Mather	matics	A:1	165
15	C003549	Analysis of High Dimensional Data Lieven Clement Department of Applied Mathematics and Computer Science	5		A:1	150
16	C004550	Measure Theory [en, nl] Andreas Weiermann Department of Mathematics: Analysis, Logic and Discrete	6 e Mathe	ematics	(A:1) <sup>d</sup>	165
17	C004451	General Relativity Archisman Ghosh Department of Physics and Astronomy	6		A:1	180
18	C004506	Quantum Field Theory Thomas Mertens Department of Physics and Astronomy	6		A:1	180

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19	C003711	Computational Challenges in Bioinformatics Peter Dawyndt Department of Applied Mathematics and Computer Science	6	A:2	180
20	C003401	Statistical Genomics Lieven Clement Department of Applied Mathematics and Computer Science	5	A:1	150
21	C003242	Research Project	0	A:1, C:J, B:2	0

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
cs: Czech	el: Greek
da: Danish	en: English

ja: Japanese nl: Dutch no: Norwegian

es: Spanish

fr: French

it: Italian

pl: Polish pt: Portuguese ru: Russian sh: Kroatian/Serbian zh: Chinese sl: Slovene 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