GHENT UNIVERSITY

Study Programme

Academic year 2026-2027

Faculty of Sciences

Master of Science in Statistical Data Analysis

Language of instruction: English

Programme version 13

1 General Courses — 9 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C004076	Principles of Statistical Data Analysis *Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics*	6		1	A:1	180
2	C004617	R for Data Analysis *Koen Plevoets -- Department of Mathematics, Computer Science and Statistics*	3		1	A:1	90

2 Majors — 36 credits

Subscribe to 36 credit units from 1 major from the following list. Subject to approval by the faculty.

2.1 Major Statistical Science — 36 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C004618	Python for Data Analysis *Koen Plevoets -- Department of Mathematics, Computer Science and Statistics*	3		1	A:1	90
2	C004078	Analysis of Continuous Data *Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics*	6		1	A:1	180
3	C004079	Categorical Data Analysis *Beatrijs Moerkerke -- Department of Data-analysis*	6		1	A:1	180
4	C004080	Statistical Inference *Oliver Dukes -- Department of Mathematics, Computer Science and Statistics*	6		1	A:2	180

2.1.1 Elective Course List — 15 credits

Subscribe to no more than 15 credit units from the following list.
Subscribe to at most 5 credit units from 1 module from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I002454	Geostatistics	5		1		150
2	C003243	Econometrics: Time Series Analysis *Gerdie Everaert -- Department of Economics*	5		1	A:1	150
3	C002884	Epidemiology and Clinical Trials *Brecht Devleesschauwer -- Department of Translational Physiology, Infectiology and Public Health*	5		1	A:1	150
4	C003401	Statistical Genomics *Lieven Clement -- Department of Mathematics, Computer Science and Statistics*	5		1	A:1	150
5	C002950	Survival Analysis *Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics*	5		1	A:2	150
6	C004413	Causal Machine Learning *Stijn Vansteelandt -- Department of Mathematics, Computer Science and Statistics*	5		1	A:2	150
7	I001280	Experimental Design *Stijn Luca -- Department of Data Analysis and Mathematical Modelling*	5		1	B:2	150
8	C003398	Analysis of Clustered and Longitudinal Data *Johan Steen -- Department of Mathematics, Computer Science and Statistics*	5		1	A:2	150
9	C003549	Analysis of High Dimensional Data *Lieven Clement -- Department of Mathematics, Computer Science and Statistics*	5		1	A:1	150
10	C004414	Statistical Consulting *Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics*	5		1		150

11	F000687	Advanced Econometrics: Non-Linear Methods *Gerdie Everaert -- Department of Economics*	6		1	A:2	180
12	C004545	Bayesian Statistics *Koen De Turck -- Department of Telecommunications and Information Processing*	5		1	A:2	150
13	E016350	Artificial Intelligence *Aleksandra Pizurica -- Department of Telecommunications and Information Processing*	3		1	B:2	90

2.1.1.1 Elective Courses Flemish Community

Subscribe to at most 5 credit units from the study programmes of the universities of the Flemish Community.

2.2 Major Computational Statistics 36 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C003805	Statistical Modelling *Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics*	8		1	A:1	240
2	C003802	Big Data Science	5		1		150
3	E016350	Artificial Intelligence *Aleksandra Pizurica -- Department of Telecommunications and Information Processing*	3		1	B:2	90
4	C003080	Programming *Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics*	5	UKV	1	C:1	150
5	C003803	Databases *Antoon Bronselaer -- Department of Telecommunications and Information Processing*	5		1	A:2	150

2.2.1 Elective Course List 10 credits

Subscribe to no more than 10 credit units from the following list.
Subscribe to at most 5 credit units from 1 module from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C004545	Bayesian Statistics *Koen De Turck -- Department of Telecommunications and Information Processing*	5		1	A:2	150
2	C003549	Analysis of High Dimensional Data *Lieven Clement -- Department of Mathematics, Computer Science and Statistics*	5		1	A:1	150
3	C004413	Causal Machine Learning *Stijn Vansteelandt -- Department of Mathematics, Computer Science and Statistics*	5		1	A:2	150
4	C004414	Statistical Consulting *Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics*	5		1		150
5	F000918	Deep Learning *Seppe vanden Broucke -- Department of Business Informatics and Operations Management*	6		1	A:2	180
6	E061341	Natural Language Processing *Chris Develder -- Department of Information Technology*	6		1	A:2	180

2.2.1.1 Elective Courses Flemish Community

Subscribe to at most 5 credit units from the study programmes of the universities of the Flemish Community.

3 Master's Dissertation 15 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C002887	Master's Dissertation	15		1	A:J	450

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 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