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	6	1		A:1	180
		Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics					
2	C004617	R for Data Analysis	3	1		A:1	90
		Koen Plevoets -- Department of Mathematics, Computer Science and Statistics					

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	3	1		A:1	90
		Koen Plevoets -- Department of Mathematics, Computer Science and Statistics					
2	C004078	Analysis of Continuous Data	6	1		A:1	180
		Els Goetghebeur -- Department of Mathematics, Computer Science and Statistics					
3	C004079	Categorical Data Analysis	6	1		A:1	180
		Beatrijs Moerkerke -- Department of Data-analysis					
4	C004080	Statistical Inference	6	1		A:2	180
		Oliver Dukes -- Department of Mathematics, Computer Science and Statistics					

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

Nr	Course		CRDT	Ref	MT1	Session	Study
11	F000687	Advanced Econometrics: Non-Linear Methods	6		1	A:2	180
		Gerdie Everaert -- Department of Economics					
12	C004545	Bayesian Statistics	5		1	A:2	150
		Koen De Turck -- Department of Telecommunications and Information Processing					
13	E016350	Artificial Intelligence	3		1	B:2	90
		Aleksandra Pizurica -- Department of Telecommunications and Information Processing					

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	8		1	A:1	240
		Tom Loeys -- Department of Data-analysis					
2	C003802	Big Data Science	5		1	A:J	150
		Jefrey Lijffijt -- Department of Electronics and Information Systems					
3	E016350	Artificial Intelligence	3		1	B:2	90
		Aleksandra Pizurica -- Department of Telecommunications and Information Processing					
4	C003080	Programming	5	UKV	1	C:1	150
		Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics					
5	C003803	Databases	5		1	A:2	150
		Antoon Bronselaer -- Department of Telecommunications and Information Processing					

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

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