Study Programme

Academic year 2025-2026

Faculty of Sciences

Master of Science in Computer Science

Language of instruction: Dutch

Programme version 9

1 General Courses — 60 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C003241	Fundaments of Programming Languages	6		1	A:1	165
		Christophe Scholliers -- Department of Mathematics, Computer Science and Statistics					
2	C003758	Machine Learning [en]	6		1	A:1	180
		Yvan Saeys -- Department of Mathematics, Computer Science and Statistics					
3	E017930	Parallel and Distributed Software Systems [en]	6		1	A:1	180
		Jan Fostier -- Department of Information Technology					
4	C003349	Discrete Algorithms	6		1	A:2	165
		Veerle Fack -- Department of Mathematics, Computer Science and Statistics					
5	C004072	Software Engineering Lab 3	6		1	A:2	180
		Sofie Van Gassen -- Department of Mathematics, Computer Science and Statistics					
6	E018520	Compilers [en]	6		1	A:2	180
		Bjorn De Sutter -- Department of Electronics and Information Systems					
7	C004041	Data Visualization	3		1	A:2	90
		Bart Mesuere -- Department of Mathematics, Computer Science and Statistics					
8	C000957	Intellectual Property Rights	3		1	A:2	90
		Hendrik Vanhees -- Department of Interdisciplinary Study of Law, Private Law and Business Law					
9	C004073	Computer Graphics	6		2	A:1	180
		Peter Lambert -- Department of Electronics and Information Systems					
10	C004074	Big Data Science	6		2	A:2	165
		Bart Mesuere -- Department of Mathematics, Computer Science and Statistics					
11	C004075	Internship	6		2	A:J	180
		Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics					

2 Minors — 30 credits

Subscribe to 1 minor from the following list.

2.1 Minor Research — 30 credits

Subscribe to 30 credit units from no less than 1 and no more than 2 modules from the following list. Subject to approval by the faculty.
Of which at least 18 credits from the field of computer science.

2.1.1 Elective Course List

Subscribe to no more than 30 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E010310	Image Processing	6			A:1	180
		Bart Goossens -- Department of Telecommunications and Information Processing					
2	C000627	Computability and Complexity	6				165
		Giovanni Solda -- Department of Mathematics: Analysis, Logic and Discrete Mathematics					
3	C004011	Advanced Numerical Methods	6			A:2	180
		Julian Köllermeier -- Department of Mathematics, Computer Science and Statistics					
4	E019170	Internet of Things [en]	6			A:1	180
		Jeroen Hoebeke -- Department of Information Technology					
5	E019370	Robotics [en]	6			A:1	180
		Tony Belpaeme -- Department of Electronics and Information Systems					

Nr	Course		CRDT	Ref	MT1	Session	Study
6	C000145	Algorithmic Graph Theory	6			A:2	165
		Gunnar Brinkmann -- Department of Mathematics, Computer Science and Statistics					
7	C004552	Soft Computing	6			(A:2)[d]	165
		Chris Cornelis -- Department of Mathematics, Computer Science and Statistics					
8	C003711	Computational Challenges in Bioinformatics [en]	6			A:2	180
		Jan Fostier -- Department of Information Technology					
9	C001026	Computer Algebra	6			A:2	165
		Andreas Weiermann -- Department of Mathematics: Analysis, Logic and Discrete Mathematics					
10	E061460	Computer Vision: Theory and Applications	6			A:2	180
		Hiep Luong -- Department of Telecommunications and Information Processing					
11	E003600	Information Theory [en]	6			B:2	180
		Heidi Steendam -- Department of Telecommunications and Information Processing					
12	E017920	Design of Multimedia Applications [en]	6			A:2	180
		Glenn Van Wallendael -- Department of Electronics and Information Systems					
13	E010220	Speech Processing [en]	4			A:2	120
		Kris Demuynck -- Department of Electronics and Information Systems					
14	C004413	Causal Machine Learning [en]	5			A:2	150
		Stijn Vansteelandt -- Department of Mathematics, Computer Science and Statistics					
15	E031800	AI Research Seminar [en]	3			A:1	90
		Tijl De Bie -- Department of Electronics and Information Systems					
16	E061350	Deep Generative Models [en]	4			A:2	120
		Bart Dhoedt -- Department of Information Technology					
17	E034500	Sustainable Computing [en]	3			A:2	90
		Lieven Eeckhout -- Department of Electronics and Information Systems					
18	E061341	Natural Language Processing [en]	6			A:2	180
		Thomas Demeester -- Department of Information Technology					
19	E017942	Software Hacking and Protection [en]	6			A:1	180
		Bjorn De Sutter -- Department of Electronics and Information Systems					
20	E017950	Secure Software and Systems [en]	6			A:2	180
		Bart Coppens -- Department of Electronics and Information Systems					
21	E008711	Network Hacking and Protection [en]	6			A:1	180
		Bruno Volckaert -- Department of Information Technology					
22	E018610	Database Design	4			A:1	120
		Guy De Tré -- Department of Telecommunications and Information Processing					
23	E018130	NoSQL Databases [en]	3			A:2	90
		Antoon Bronselaer -- Department of Telecommunications and Information Processing					
24	E018700	Data Quality [en]	3			A:1	90
		Antoon Bronselaer -- Department of Telecommunications and Information Processing					
25	E017310	Cloud Storage and Computing [en]	4			A:2	120
		Bruno Volckaert -- Department of Information Technology					
26	C004623	Meta Programming and Reflection [en]	6			A:2	150
		Vrije Universiteit Brussel					

2.1.2 Elective Courses UGent or other Universities

Subscribe to no more than 30 credit units to be chosen from the study programmes of:
- UGent including the
  Ghent University elective courses,
- Other higher education of the Flemish Community
- Erasmus+ partner universities including the ENLIGHT (online) elective courses.

2.2 Minor Economics and Business Administration   30 credits

Subscribe to 30 credit units from no less than 1 and no more than 2 modules from the following list.

2.2.1 General Courses

Subscribe to no less than 24 and no more than 30 credit units from the following list, distributed over the first standard learning path as follows: no more than 24 credit units in year 1.
Dare to Venture can be chosen if you have already subscribed to Introduction to Entrepreneurship.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	F001019	Economics	5			B:1	150
		Bruno Merlevede -- Department of Economics					

Nr	Course		CRDT		Ref	MT1	Session	Study
2	F001020	Introduction to Entrepreneurship [en]	3				A:1	90
		Petra Andries -- Department of Marketing, Innovation and Organisation						
3	F001022	Dare to Venture [en]	4				A:2	120
		Johan Verrue -- Department of Marketing, Innovation and Organisation						
4	F000845	Business Administration	4				A:2	120
		Mirjam Knockaert -- Department of Marketing, Innovation and Organisation						
5	F000551	Business Skills [en]	4				C:2	120
		Mieke Audenaert -- Department of Marketing, Innovation and Organisation						
6	F000768	Marketing Management	6				A:1	180
		Maggie Geuens -- Department of Marketing, Innovation and Organisation						
7	F000855	Organization Theory [en]	4				A:2	120
		Gosia Kozusznik -- Department of Marketing, Innovation and Organisation						
8	F001009	Business Cycles and Growth	5				A:1	150
		Freddy Heylen -- Department of Economics						
9	F001008	Markets and Prices	5				A:1	150
		Dirk Van de gaer -- Department of Economics						
10	F001010	Financial Markets and Institutions	5				A:2	150
		Rudi Vander Vennet -- Department of Economics						
11	F000752	Environmental Economics and Policy	4				B:2	120
		Brent Bleys -- Department of Economics						
12	F000859	Corporate Social Responsibility	3				A:2	90
		Saskia Crucke -- Department of Marketing, Innovation and Organisation						

2.2.2 Elective Courses UGent or other Universities

Subscribe to no more than 6 credit units to be chosen from the study programmes of:
- UGent including the **Ghent University elective courses**,
- Other higher education of the Flemish Community,
- **Erasmus+ partner universities** including the **ENLIGHT (online) elective courses**.

3 Master's Dissertation — 30 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C002309	Master's Dissertation	30		2	A:J	825

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 2026-2027	f: annually, from 2027-2028	i: annually, from 2028-2029
b: tri-annually	d: bi-annually, from 2026-2027	g: bi-annually, from 2027-2028	j: bi-annually, from 2028-2029
	e: tri-annually, from 2026-2027	h: tri-annually, from 2027-2028	k: tri-annually, from 2028-2029