

Study Programme

Academic year 2023-2024

Faculty of Sciences Master of Science in Computer Science

Language of instruction: Dutch Programme version 7

1	Genera	Courses			60	credits
Nr	Course		CRDT R	ef MT1	Session	Study
1	C003241	Fundaments of Programming Languages Christophe Scholliers Department of Mathematics, Computer Science and Statistics	6	1	A:1	165
2	C003758	Machine Learning [en] Yvan Saeys Department of Mathematics, Computer Science and Statistics	6	1	A:1	180
3	E017930	Parallel and Distributed Software Systems [en] Jan Fostier Department of Information Technology	6	1	A:1	180
4	C003349	Discrete Algorithms Veerle Fack Department of Mathematics, Computer Science and Statistics	6	1	A:2	165
5	C004072	Software Engineering Lab 3 Sofie Van Gassen Department of Mathematics, Computer Science and Statistics	6	1	A:2	180
6	E018520	Compilers [en] Bjorn De Sutter Department of Electronics and Information Systems	6	1	A:2	180
7	C004041	Data Visualization Bart Mesuere Department of Mathematics, Computer Science and Statistics	3	1	A:2	90
8	C000957	Intellectual Property Rights Hendrik Vanhees Department of Interdisciplinary Study of Law, Private Law and Business Law	3	1	A:2	90
9	C004073	Computer Graphics Peter Lambert Department of Electronics and Information Systems	6	2	A:1	180
10	C004074	Big Data Science Bart Mesuere Department of Mathematics, Computer Science and Statistics	6	2	A:2	165
11	C004075	Internship Peter Dawyndt Department of Mathematics, Computer Science and Statistics	6	2	A:J	180
2	Minors				30	credits
Sul	bscribe to 1	minor from the following list.				
2.	1 Minor I	Research			30	credits
		credit units from no less than 1 and no more than 2 modules from the follow st 18 credits from the field of computer science.	ving list. Subject	to approval by th	ne faculty.	
2.1	1.1 Electiv	ve Course List				
	b <mark>scribe to no</mark> Course	more than 30 credit units from the following list.	CRDT R	ef MT1	Session	Study
1	E010310	Image Processing Wilfried Philips Department of Telecommunications and Information Processing	6		A:1	180
2	C000627	Computability and Complexity [en] Giovanni Solda Department of Mathematics: Analysis, Logic and Discrete Mathematics	6		A:1	165
3	C004011	Advanced Numerical Methods Marnix Van Daele Department of Mathematics, Computer Science and Statistics	6		A:1	180
4	E019170	Internet of Things [en] Jeroen Hoebeke Department of Information Technology	6		A:1	180

6

5 E019370 Robotics [en] Tony Belpaeme -- Department of Electronics and Information Systems

180

A:1

6	C000145	Algorithmic Graph Theory Gunnar Brinkmann Department of Mathematics, Computer Science and Statistics	6	A:2	165
7	C001719	Capita Selecta in Soft Computing Chris Cornelis Department of Mathematics, Computer Science and Statistics	6	(A:2) ^d	165
8	C003711	Computational Challenges in Bioinformatics [en] Jan Fostier Department of Information Technology	6	A:2	180
9	C001026	Computer Algebra Andreas Weiermann Department of Mathematics: Analysis, Logic and Discrete Mathematics	6	A:2	165
10	E736020	Computer Vision Hiep Luong Department of Telecommunications and Information Processing	6	A:2	180
11	E003600	Information Theory [en] Heidi Steendam Department of Telecommunications and Information Processing	6	B:2	180
12	E017920	Design of Multimedia Applications [en] Glenn Van Wallendael Department of Electronics and Information Systems	6	A:2	180
13	E010220	Speech Processing [en] Kris Demuynck Department of Electronics and Information Systems	4	A:2	120
14	E034150	Blockchain Technologies and Applications [en] Bjorn De Sutter Department of Electronics and Information Systems	3	A:1	90
15	C004413	Causal Machine Learning [en] Stijn Vansteelandt Department of Mathematics, Computer Science and Statistics	5	A:2	150
16	E031800	AI Research Seminar [en] Thomas Demeester Department of Information Technology	3	A:1	90
17	E061350	Deep Generative Models [en] Bart Dhoedt Department of Information Technology	4	A:2	120
18	E034500	Sustainable Computing [en] Lieven Eeckhout Department of Electronics and Information Systems	3	A:2	90
19	E061341	Natural Language Processing [en] Thomas Demeester Department of Information Technology	6	A:2	180
20	E017942	Software Hacking and Protection [en] Bjorn De Sutter Department of Electronics and Information Systems	6	A:1	180
21	E017950	Secure Software and Systems [en] Bart Coppens Department of Electronics and Information Systems	6	A:2, B:2	180
22	E008710	Network Security	6		180
23	E018610	Database Design Guy De Tré Department of Telecommunications and Information Processing	4	A:1	120
24	E018130	NoSQL Databases [en] Antoon Bronselaer Department of Telecommunications and Information Processing	3	A:2	90
25	E018700	Data Quality [en] Antoon Bronselaer Department of Telecommunications and Information Processing	3	A:1	90
2.1	1.2 Electiv	e Courses UGent or other Universities			
• (JGent includi <u>Shent Univer</u> Other higher o	more than 30 credit units to be chosen from the study programmes of: ng the <u>sity elective courses,</u> education of the Flemish Community <u>rtner universities</u> including the <u>ENLIGHT (online) elective courses.</u>			
2.	2 Minor E	Economics and Business Administration		30 c	redits
Su	bscribe to 30	credit units from no less than 1 and no more than 2 modules from the fol	llowing list.		
2.2	2.1 Gener	al Courses			
foll Da	ows: no more re to Venture	less than 24 and no more than 30 credit units from the following list, dist e than 24 credit units in year 1. e can be chosen if you have already subscribed to Introduction to Entrepre			
Nr	Course			/IT1 Session	Study
1		Economics Bruno Merlevede Department of Economics	5	A:1	150
2	E076431	Introduction to Entrepreneurship [en] Petra Andries Department of Marketing, Innovation and Organisation	3	A:1	90
-					100

4

Johan Verrue -- Department of Marketing, Innovation and Organisation

3 E076460 Dare to Venture [en]

120

A:2

4	F000845	Business Administration Mirjam Knockaert Department of Marketing, Innovation and Organisation	4	A:2	120
5	F000551	Business Skills [en] Mieke Audenaert Department of Marketing, Innovation and Organisation	4	C:2	120
6	F000768	Marketing Management Maggie Geuens Department of Marketing, Innovation and Organisation	6	A:1	180
7	F000855	Organization Theory [en] Gosia Kozusznik Department of Marketing, Innovation and Organisation	4	A:2	120
8	F000596	Business Cycles and Growth Freddy Heylen Department of Economics	6	A:1	180
9	F000446	Markets and Prices Dirk Van de gaer Department of Economics	6	A:1	180
10	F000093	Financial Markets and Institutions Rudi Vander Vennet Department of Economics	5	A:2	150
11	F000752	Environmental Economics and Policy Brent Bleys Department of Economics	4	B:2	120
12	F000859	Corporate Social Responsibility Saskia Crucke Department of Marketing, Innovation and Organisation	3	A:2	90

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 <u>Ghent University elective courses</u>,

• Other higher education of the Flemish Community,

• Erasmus+ partner universities including the ENLIGHT (online) elective courses.

3 Master's Dissertation 30 credits				credits
Nr Course	CRDT Re	f MT1	Session	Study
1 C002309 Master's Dissertation	30	2	A:J	825

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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:

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 2024-2025	f: annually, from 2025-2026	i: annually, from 2026-2027
b: tri-annually	d: bi-annually, from 2024-2025	g: bi-annually, from 2025-2026	j: bi-annually, from 2026-2027
	e: tri-annually, from 2024-2025	h: tri-annually, from 2025-2026	k: tri-annually, from 2026-2027