

Faculty of Sciences, Faculty of Psychology and Educational Sciences

Master of Science in Teaching in Science and Technology -- Computer Science

Language of instruction: Dutch

Programme version 3

## 1 Domain Component 54 credits

For courses without indication of the standard learning path, the student can choose whether to take the course in the first or second year, depending on the rest of his/her curriculum.

### 1.1 General Courses 24 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E017930 Parallel and Distributed Software Systems [en] Filip De Turck -- Department of Information Technology	6			A:1	180
2	C004073 Computer Graphics Peter Lambert -- Department of Electronics and Information Systems	6			A:1	180
3	E019400 Information Security [en] Eric Laermans -- Department of Information Technology	6			B:2	180
4	C004072 Software Engineering Lab 3 Sofie Van Gassen -- Department of Applied Mathematics and Computer Science	6			A:2	180

### 1.2 Elective Courses 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.

#### 1.2.1 Elective Course List

Subscribe to no less than 24 and no more than 30 credit units from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003241 Fundaments of Programming Languages Christophe Scholliers -- Department of Applied Mathematics and Computer Science	6			A:1	165
2	C003758 Machine Learning [en] Yvan Saeys -- Department of Applied Mathematics and Computer Science	6			A:1	180
3	E018520 Compilers [en] Bjorn De Sutter -- Department of Electronics and Information Systems	6			A:2	180
4	C003349 Discrete Algorithms Veerle Fack -- Department of Applied Mathematics and Computer Science	6			A:2	165
5	C004041 Data Visualization Bart Mesuere -- Department of Applied Mathematics and Computer Science	3			A:2	90
6	C000957 Intellectual Property Rights Hendrik Vanhees -- Department of Interdisciplinary Study of Law, Private Law and Business Law	3			A:2	90
7	C004074 Big Data Science Bart Mesuere -- Department of Applied Mathematics and Computer Science	6			A:2	165
8	E034140 Parallel Computer Systems [en] Lieven Eeckhout -- Department of Electronics and Information Systems	6			A:1	180
9	C004075 Internship Peter Dawyndt -- Department of Applied Mathematics and Computer Science	6			A:J	180

#### 1.2.2 Elective Courses Flemish Community

Subscribe to no more than 6 credit units to be chosen from the study programmes of UGent including the [Ghent University elective courses](#) or study programmes of other higher education of the Flemish Community.

## 2 Teaching Component 36 credits

For courses without indication of the standard learning path, the student can choose whether to take the course in the first or second year, depending on the rest of his/her curriculum. Students must complete the corresponding teaching methodology course before entering into an internship, or at least take the teaching methodology course simultaneously.

## 2.1 Programme Pathway Theoretical Education

12 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H002197 The Teacher within School and Society Melissa Tuytens -- Department of Educational Studies	4			A:1	120
2	H002196 Classroom Management and Reflection Melissa Tuytens -- Department of Educational Studies	4			A:2	120
3	H002198 Psychology of Adolescence Wim Beyers -- Department of Developmental, Personality and Social Psychology	4			A:1	120

## 2.2 Programme Pathway Teaching Methodology

6 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H002225 Teaching Methodology: Computer Science Kris Coolsaet -- Department of Applied Mathematics and Computer Science	6			A:J	180

## 2.3 Programme Pathway Internship

12 credits

Subscribe to 12 credit units from the following list, with

- 4 credit units from the courses with reference a, if no additional Teaching Methodology Course is taken in Module 2 of the Elective Courses.
- 4 credit units from the courses with reference b, if an additional Teaching Methodology Course is taken in Module 2 of the Elective Courses

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H002299 Internship A: STEM Katrien Strubbe -- Department of Chemistry	4			A:J	100
2	H002318 Internship B: Computer Science Kris Coolsaet -- Department of Applied Mathematics and Computer Science	4			A:J	100
3	H002340 Internship C: Computer Science Kris Coolsaet -- Department of Applied Mathematics and Computer Science	4	a		A:J	100
4	H002336 Internship C: Mathematics Hendrik Van Maldeghem -- Department of Mathematics: Algebra and Geometry	4	b		A:J	100

## 2.4 Elective Courses

6 credits

Subscribe to 6 credit units from one or different modules from the following list. Subject to approval by the faculty.

### 2.4.1 Module 1: List of Elective Courses

The courses with reference b can only be chosen if the course with reference a has been passed.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H001608 Movement and Sports: Now and Later Veerle Segers -- Department of Movement and Sports Sciences	4	UKV		A:2	120
2	H001838 Culture, Media and Education Kris Rutten -- Department of Educational Studies	4			A:2	120
3	H002128 Methods to Facilitate Socratic Group Discussions in the Educational Context Veerle Provoost -- Department of Philosophy and Moral Sciences	4			A:2	120
4	H002213 Motivational Psychology Maarten Vansteenkiste -- Department of Developmental, Personality and Social Psychology	5			A:1	150
5	H002344 Linguistic Proficiency in Content and Language Integrated Learning: Dutch Bart Deygers -- Department of Translation, Interpreting and Communication	3	b	2	A:2	90
6	H002247 Linguistic Proficiency in Content and Language Integrated Learning: English [en] June Eyckmans -- Department of Translation, Interpreting and Communication	3	b	2	A:2	90
7	H002248 Linguistic Proficiency in Content and Language Integrated Learning: French [fr] Pascale Hadermann -- Department of Linguistics	3	b	2	A:2	90
8	H002249 Linguistic Proficiency in Content and Language Integrated Learning: German [de] Gunther Martens -- Department of Literary Studies	3	b	2	A:2	90
9	H002246 Theory and Practice of Content and Language Integrated Learning Ulrike Vogl -- Department of Linguistics	3	a	1	A:1	90
10	H002283 Teaching Methodology: General Subjects for Technical and Vocational Education, including Internship Katrien Strubbe -- Department of Chemistry	6			A:2	160

### 2.4.2 Module 2: Additional Course Teaching Methodology

Taking an additional Teaching Methodology Course implies taking the corresponding Internship in the Programme Pathway Internship. Students who are able to demonstrate that they have acquired at least 30 academic credits in another specific domain (60 credits if it

concerns a language), can submit a request to the Curriculum Manager for the Master of Education to take the corresponding teaching methodology course. If the Curriculum Manager agrees, the Programme Pathway Internship needs to be revised allowing a student to follow an "Internship C" in this additional teaching methodology.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H002226 Teaching Methodology: Mathematics I Hendrik Van Maldeghem -- Department of Mathematics: Algebra and Geometry	6			A:J	180

### 2.4.3 Module 3: Additional Internship

Nr	Course	CRDT	Ref	MT1	Session	Study
1	H002332 Short Additional Internship Katrien Strubbe -- Department of Chemistry	3			A:J	80
2	H002333 Extended Additional Internship Katrien Strubbe -- Department of Chemistry	6			A:J	160

### 2.4.4 Module 4: an Elective Course related to Education

Subscribe to a course of no less than 6 credit units, related to education, and lectured at a university belonging to the Flemish Community (see also: [Enlight Elective Courses](#)), subject to approval by the faculty.

## 3 Master's Dissertation 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004108 Master's Dissertation N. N.	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 course name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Croatian/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 is 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