GHENT UNIVERSITY

# Study Programme

Academic year 2023-2024

Faculty of Sciences

Bachelor of Science in Computer Science

Language of instruction: Dutch

Programme version 8

## 1 General Courses — 162 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | C003770 | Programming<br>*Kris Coolsaet -- Department of Mathematics, Computer Science and Statistics* | 6 | | 1 | A:1 | 180 |
| 2 | C003771 | Databases<br>*Guy De Tré -- Department of Telecommunications and Information Processing* | 6 | | 1 | A:1 | 180 |
| 3 | C000939 | Computer Use<br>*Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics* | 6 | | 1 | A:1 | 180 |
| 4 | C002908 | Reasoning, Abstracting and Formulating<br>*Eric Laermans -- Department of Information Technology* | 6 | | 1 | A:1 | 180 |
| 5 | C001893 | Discrete Mathematics<br>*Bart De Bruyn -- Department of Mathematics: Algebra and Geometry* | 6 | | 1 | A:1 | 180 |
| 6 | C003772 | Object Oriented Programming<br>*Kris Coolsaet -- Department of Mathematics, Computer Science and Statistics* | 6 | | 1 | A:2 | 180 |
| 7 | C003773 | Algorithms and Data Structures 1<br>*Veerle Fack -- Department of Mathematics, Computer Science and Statistics* | 6 | | 1 | A:2 | 180 |
| 8 | C002178 | Scripting Languages<br>*Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics* | 6 | | 1 | A:2 | 180 |
| 9 | C001094 | Linear Algebra and Geometry<br>*Tom De Medts -- Department of Mathematics: Algebra and Geometry* | 6 | | 1 | A:2 | 180 |
| 10 | C003774 | Calculus<br>*Jasson Vindas Diaz -- Department of Mathematics: Analysis, Logic and Discrete Mathematics* | 6 | | 1 | A:2 | 180 |
| 11 | C003775 | Functional Programming<br>*Christophe Scholliers -- Department of Mathematics, Computer Science and Statistics* | 6 | | 2 | A:1 | 180 |
| 12 | C003776 | System Programming<br>*Filip De Turck -- Department of Information Technology* | 6 | | 2 | A:1 | 180 |
| 13 | C003777 | Algorithms and Data Structures 2<br>*Gunnar Brinkmann -- Department of Mathematics, Computer Science and Statistics* | 6 | | 2 | A:1 | 180 |
| 14 | E008620 | Communication Networks<br>*Wouter Tavernier -- Department of Information Technology* | 6 | | 2 | A:1 | 180 |
| 15 | C003778 | Statistics and Probability<br>*Oliver Dukes -- Department of Mathematics, Computer Science and Statistics* | 6 | | 2 | A:1 | 180 |
| 16 | C003779 | Webdevelopment<br>*Ruben Verborgh -- Department of Electronics and Information Systems* | 6 | | 2 | A:2 | 180 |
| 17 | C003780 | Software Engineering Lab 1<br>*Christophe Scholliers -- Department of Mathematics, Computer Science and Statistics* | 6 | | 2 | A:2 | 180 |
| 18 | C002126 | Multimedia<br>*Peter Lambert -- Department of Electronics and Information Systems* | 6 | | 2 | A:2 | 180 |
| 19 | E034110 | Computer Architecture<br>*Koen De Bosschere -- Department of Electronics and Information Systems* | 6 | | 2 | A:2 | 180 |
| 20 | C001521 | Scientific Computing<br>*Marnix Van Daele -- Department of Mathematics, Computer Science and Statistics* | 6 | | 2 | A:2 | 180 |
| 21 | C003756 | Artificial Intelligence<br>*Yvan Saeys -- Department of Mathematics, Computer Science and Statistics* | 6 | | 3 | A:1 | 180 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 22 | C003782 | Algorithms and Datastructures 3<br>*Gunnar Brinkmann -- Department of Mathematics, Computer Science and Statistics* | 6 | 3 | A:1 | 180 |
| 23 | E019010 | Operating Systems<br>*Koen De Bosschere -- Department of Electronics and Information Systems* | 6 | 3 | A:1 | 180 |
| 24 | C003783 | Logic Programming<br>*Christophe Scholliers -- Department of Mathematics, Computer Science and Statistics* | 6 | 3 | A:2 | 180 |
| 25 | C003784 | Software Engineering Lab 2<br>*Bart Mesuere -- Department of Mathematics, Computer Science and Statistics* | 6 | 3 | A:2 | 180 |
| 26 | C003789 | Computational Biology<br>*Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics* | 6 | 3 | A:2 | 180 |
| 27 | C003785 | Automata, Computability and Complexity<br>*Leo Storme -- Department of Mathematics: Analysis, Logic and Discrete Mathematics* | 6 | 3 | A:2 | 180 |

## 2 Minors 18 credits

Subscribe to 1 minor from the following list. Subject to approval by the faculty.
Students who have followed the Minor Education, can enter directly into the educational master's programme.

### 2.1 Minor Security & Parallel Systems 18 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | E034140 | Parallel Computer Systems [en]<br>*Lieven Eeckhout -- Department of Electronics and Information Systems* | 6 | | 3 | A:1 | 180 |
| 2 | E019400 | Information Security [en]<br>*Eric Laermans -- Department of Information Technology* | 6 | | 3 | B:2 | 180 |
| 3 | C003786 | Modelling and Simulation<br>*Marnix Van Daele -- Department of Mathematics, Computer Science and Statistics* | 6 | | 3 | A:1 | 180 |

### 2.2 Minor Electronics & Telecommunication 18 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | C003787 | Introduction to Telecommunications<br>*Lieven Eeckhout -- Department of Electronics and Information Systems* | 6 | | 3 | A:1 | 180 |
| 2 | C003806 | Introductory Electronics<br>*Bjorn De Sutter -- Department of Electronics and Information Systems* | 6 | | 3 | A:2 | 180 |
| 3 | C003788 | Mathematical Modelling in Engineering<br>*Karel Van Acoleyen -- Department of Physics and Astronomy* | 6 | | 3 | A:1 | 180 |

### 2.3 Minor Education 18 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | H002169 | Powerful Learning Environments<br>*Bram De Wever -- Department of Educational Studies* | 6 | | 3 | A:1 | 180 |
| 2 | H002175 | Teaching Methodology: Sciences<br>*Katrien Strubbe -- Department of Chemistry* | 6 | | 3 | A:J | 180 |
| 3 | H002170 | Reference Internship: Sciences<br>*Katrien Strubbe -- Department of Chemistry* | 3 | | 3 | A:J | 90 |
| 4 | C004093 | Mathematical Skills and Know-how<br>*Koen Thas -- Department of Mathematics: Algebra and Geometry* | 3 | | 3 | A:2 | 85 |

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 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 |