GHENT UNIVERSITY

# Study Programme

Academic year 2024-2025

Faculty of Engineering and Architecture

Bachelor of Science in Engineering -- Civil Engineering

Language of instruction: Dutch

Programme version 5

## 1 General Courses — 60 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | E001142 | Basic Mathematics<br>*Hennie De Schepper -- Department of Electronics and Information Systems* | 3 | | 1 | A:1 | 90 |
| 2 | E020061 | Physics I<br>*Christophe Leys -- Department of Applied Physics* | 6 | | 1 | A:1 | 180 |
| 3 | E001132 | Mathematical Analysis I<br>*Hennie De Schepper -- Department of Electronics and Information Systems* | 6 | | 1 | A:1 | 180 |
| 4 | E001460 | Discrete Mathematics I<br>*Mario Pickavet -- Department of Information Technology* | 4 | | 1 | A:1 | 120 |
| 5 | E070070 | Chemistry: the Structure of Matter<br>*Joris Thybaut -- Department of Materials, Textiles and Chemical Engineering* | 4 | | 1 | A:1 | 120 |
| 6 | E098513 | Modelling, Making and Measuring<br>*Filip Beunis -- Department of Electronics and Information Systems* | 4 | | 1 | A:1 | 120 |
| 7 | E015041 | Informatics<br>*Bart Dhoedt -- Department of Information Technology* | 6 | | 1 | A:J | 180 |
| 8 | E001222 | Mathematical Analysis II<br>*Hendrik De Bie -- Department of Electronics and Information Systems* | 4 | | 1 | A:2 | 120 |
| 9 | E000662 | Geometry and Linear Algebra<br>*Hennie De Schepper -- Department of Electronics and Information Systems* | 7 | | 1 | A:2 | 210 |
| 10 | E070080 | Chemical Thermodynamics<br>*Maarten Sabbe -- Department of Materials, Textiles and Chemical Engineering* | 3 | | 1 | A:2 | 90 |
| 11 | E003043 | Probability and Statistics<br>*Jasper De Bock -- Department of Electronics and Information Systems* | 6 | | 1 | A:2 | 180 |
| 12 | E066012 | Materials Technology<br>*Kim Verbeken -- Department of Materials, Textiles and Chemical Engineering* | 4 | | 1 | A:2 | 120 |
| 13 | E098512 | Sustainability, Entrepreneurship and Ethics<br>*Filip Beunis -- Department of Electronics and Information Systems* | 3 | | 1 | A:2 | 90 |

## 2 General Courses — 30 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | E040420 | Mechanics of Materials<br>*Wim Van Paepegem -- Department of Materials, Textiles and Chemical Engineering* | 6 | | 2 | A:1 | 180 |
| 2 | E020220 | Physics II<br>*Christophe Leys -- Department of Applied Physics* | 6 | | 2 | A:1 | 180 |
| 3 | E045120 | Transport Phenomena<br>*Tom De Mulder -- Department of Civil Engineering* | 6 | | 2 | B:2 | 180 |
| 4 | E001321 | Mathematical Analysis III<br>*Hendrik De Bie -- Department of Electronics and Information Systems* | 6 | | 2 | A:1 | 180 |
| 5 | E005020 | Analysis of Systems and Signals<br>*Gert De Cooman -- Department of Electronics and Information Systems* | 3 | | 2 | B:1 | 90 |
| 6 | E076040 | Sustainable Business Operations<br>*Birger Raa -- Department of Industrial Systems Engineering and Product Design* | 3 | | 2 | A:1 | 90 |

## 3 Courses Related to the Main Subject — 87 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | E076621 | Principles of Law and Construction Law<br>*Jelle Laverge -- Department of Architecture and Urban Planning* | 3 | | 2 | A:1 | 90 |
| 2 | E000810 | Topography<br>*Alain De Wulf -- Department of Geography* | 3 | | 2 | A:1 | 90 |
| 3 | E050410 | Construction of Buildings<br>*Jan Belis -- Department of Structural Engineering and Building Materials* | 6 | | 2 | A:2 | 180 |
| 4 | E044120 | Structural Analysis I<br>*Robby Caspeele -- Department of Structural Engineering and Building Materials* | 6 | | 2 | A:2 | 180 |
| 5 | E003230 | Statistical Data Processing<br>*Nele De Belie -- Department of Structural Engineering and Building Materials* | 3 | | 2 | A:2 | 90 |
| 6 | E061430 | Computer Aided Design<br>*Nico Van de Weghe -- Department of Geography* | 3 | | 2 | A:2 | 90 |
| 7 | E052720 | Concrete Technology<br>*Geert De Schutter -- Department of Structural Engineering and Building Materials* | 3 | | 2 | A:2 | 90 |
| 8 | E099101 | Engineering Project<br>*Karel Lesage -- Department of Structural Engineering and Building Materials* | 3 | | 2 | A:2 | 90 |
| 9 | E050310 | Building Physics<br>*Arnold Janssens -- Department of Architecture and Urban Planning* | 6 | | 3 | A:1 | 180 |
| 10 | E052412 | Concrete Structures: Reinforced Concrete [en]<br>*Roman Wan-Wendner -- Department of Structural Engineering and Building Materials* | 6 | | 3 | A:1 | 180 |
| 11 | E044220 | Structural Analysis II<br>*Robby Caspeele -- Department of Structural Engineering and Building Materials* | 6 | | 3 | A:1 | 180 |
| 12 | E046010 | Soil Mechanics<br>*Wim Haegeman -- Department of Civil Engineering* | 6 | | 3 | A:1 | 180 |
| 13 | E045411 | Hydraulics<br>*Tom De Mulder -- Department of Civil Engineering* | 6 | | 3 | A:1 | 180 |
| 14 | E053510 | Geometric Aspects of Roads<br>*Hans De Backer -- Department of Civil Engineering* | 3 | | 3 | A:2 | 90 |
| 15 | E090420 | Mechanical Engineering<br>*Patrick De Baets -- Department of Electromechanical, Systems and Metal Engineering* | 3 | | 3 | A:2 | 90 |
| 16 | E044230 | Structural Analysis of Geotechnical Structures<br>*Raphaël Steenbergen -- Department of Structural Engineering and Building Materials* | 3 | | 3 | A:2 | 90 |
| 17 | E044510 | Metal Structures [en, nl]<br>*Delphine Sonck -- Department of Structural Engineering and Building Materials* | 6 | | 3 | A:2 | 180 |
| 18 | E044811 | Introduction to Bridge Engineering<br>*Hans De Backer -- Department of Civil Engineering* | 3 | | 3 | A:2 | 90 |
| 19 | E051800 | Contemporary Challenges in Civil Engineering: Capita Selecta [en, nl]<br>*Robby Caspeele -- Department of Structural Engineering and Building Materials* | 3 | | 3 | A:2 | 90 |
| 20 | E099000 | Cross-Course Project<br>*Stijn Matthys -- Department of Structural Engineering and Building Materials* | 6 | | 3 | A:2 | 180 |

## 4 Elective Courses — 3 credits

Subscribe to 3 credit units from the following list, distributed over the first standard learning path as follows: 3 credit units in year 3.
Subject to approval by the faculty.

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | E099160 | Project Management in Construction [en]<br>*Mario Vanhoucke -- Department of Business Informatics and Operations Management* | 3 | | 3 | A:2 | 90 |
| 2 | E711080 | Building Services<br>*Jelle Laverge -- Department of Architecture and Urban Planning* | 3 | | 3 | B:2 | 90 |
| 3 | E016350 | Artificial Intelligence [en]<br>*Aleksandra Pizurica -- Department of Telecommunications and Information Processing* | 3 | | 3 | B:2 | 90 |

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 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 |