GHENT UNIVERSITY

# Study Programme

Academic year 2023-2024

Faculty of Engineering and Architecture

Bachelor of Science in Engineering -- Electrical Engineering

Language of instruction: Dutch

Programme version 4

## 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>*Marie-Françoise Reyniers -- 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>*Marie-Françoise Reyniers -- 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 39 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | E090320 | Electrical Circuits and Networks<br>*Inge Nys -- Department of Electronics and Information Systems* | 6 | | 2 | A:1 | 180 |
| 2 | E040420 | Mechanics of Materials<br>*Wim Van Paepegem -- Department of Materials, Textiles and Chemical Engineering* | 3 | | 2 | B:1 | 90 |
| 3 | E020220 | Physics II<br>*Christophe Leys -- Department of Applied Physics* | 6 | | 2 | A:1 | 180 |
| 4 | E005020 | Analysis of Systems and Signals<br>*Gert De Cooman -- Department of Electronics and Information Systems* | 6 | | 2 | A:1 | 180 |
| 5 | E001321 | Mathematical Analysis III<br>*Hendrik De Bie -- Department of Electronics and Information Systems* | 6 | | 2 | A:1 | 180 |
| 6 | E007120 | Modelling and Control of Dynamic Systems<br>*Mia Loccufier -- Department of Electromechanical, Systems and Metal Engineering* | 6 | | 2 | A:2 | 180 |

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|---|---|---|---|---|---|---|
| 7 | E076040 | Sustainable Business Operations<br>*Ludo Poelaert -- Department of Industrial Systems Engineering and Product Design* | 3 | | 2 | A:1 | 90 |
| 8 | E016350 | Artificial Intelligence [en]<br>*Aleksandra Pizurica -- Department of Telecommunications and Information Processing* | 3 | | 3 | B:2 | 90 |

## 3 Courses Related to the Main Subject — 81 credits

| Nr | Course | | CRDT | Ref | MT1 | Session | Study |
|---|---|---|---|---|---|---|---|
| 1 | E003110 | Applied Probability<br>*Sabine Wittevrongel -- Department of Telecommunications and Information Processing* | 3 | | 2 | A:2 | 90 |
| 2 | E017210 | Computer Programming<br>*Filip De Turck -- Department of Information Technology* | 6 | | 2 | A:2 | 180 |
| 3 | E099121 | Engineering Project<br>*Herbert De Smet -- Department of Electronics and Information Systems* | 3 | | 2 | A:2 | 90 |
| 4 | E065110 | Materials in Electronics<br>*Jeroen Beeckman -- Department of Electronics and Information Systems* | 6 | | 2 | A:2 | 180 |
| 5 | E034110 | Computer Architecture<br>*Koen De Bosschere -- Department of Electronics and Information Systems* | 6 | | 2 | A:2 | 180 |
| 6 | E012110 | Communication Theory<br>*Nele Noels -- Department of Telecommunications and Information Processing* | 6 | | 3 | A:1 | 180 |
| 7 | E900039 | Applied Electromagnetism<br>*Dries Vande Ginste -- Department of Information Technology* | 6 | | 3 | A:1 | 180 |
| 8 | E031110 | Digital Electronics<br>*Dirk Stroobandt -- Department of Electronics and Information Systems* | 6 | | 3 | A:1 | 180 |
| 9 | E008620 | Communication Networks<br>*Wouter Tavernier -- Department of Information Technology* | 6 | | 3 | A:1 | 180 |
| 10 | E030210 | Analog Electronics<br>*Jeroen De Maeyer -- Department of Electromechanical, Systems and Metal Engineering* | 6 | | 3 | A:1 | 180 |
| 11 | E030610 | Photonics<br>*Günther Roelkens -- Department of Information Technology* | 6 | | 3 | A:2 | 180 |
| 12 | E010010 | Signal Processing [en]<br>*Nilesh Madhu -- Department of Electronics and Information Systems* | 6 | | 3 | A:2 | 180 |
| 13 | E028411 | Heat Transfer in Electronics<br>*Filip Beunis -- Department of Electronics and Information Systems* | 3 | | 3 | A:2 | 90 |
| 14 | E099020 | Cross-Course Project<br>*Johan Bauwelinck -- Department of Information Technology* | 6 | | 3 | A:2 | 180 |
| 15 | E030230 | Design of Analog Circuits and Building Blocks<br>*Guy Torfs -- Department of Information Technology* | 6 | | 3 | A:2 | 180 |

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 |