

Faculty of Engineering and Architecture

Bachelor of Science in Engineering -- Chemical Engineering and Materials Science

Language of instruction: Dutch

Programme version 5

1 General Courses 60 credits

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

2 General Courses 39 credits

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

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|---|---------|--|---|---|-----|-----|
| 6 | E005020 | Analysis of Systems and Signals <i>Gert De Cooman -- Department of Electronics and Information Systems</i> | 6 | 3 | A:1 | 180 |
| 7 | E007120 | Modelling and Control of Dynamic Systems <i>Mia Locuffier -- Department of Electromechanical, Systems and Metal Engineering</i> | 6 | 3 | A:2 | 180 |

3 Courses Related to the Main Subject 81 credits

| Nr | Course | CRDT | Ref | MT1 | Session | Study |
|----|---|------|-----|-----|---------|-------|
| 1 | E078310 Sustainable Use of Materials: Metals <i>Kim Verbeken -- Department of Materials, Textiles and Chemical Engineering</i> | 3 | | 2 | A:1 | 90 |
| 2 | E071050 Foundations of Physical and Electrochemistry <i>Iwan Moreels -- Department of Chemistry</i> | 6 | | 2 | A:1 | 180 |
| 3 | E002910 Introduction to Numerical Mathematics <i>Karel Van Acoleyen -- Department of Electronics and Information Systems</i> | 3 | | 2 | A:2 | 90 |
| 4 | E099142 Engineering Project <i>Kevin Van Geem -- Department of Materials, Textiles and Chemical Engineering</i> | 6 | | 2 | A:2 | 180 |
| 5 | E021560 Molecular Structure <i>Veronique Van Speybroeck -- Department of Applied Physics</i> | 3 | | 2 | A:2 | 90 |
| 6 | E070310 Organic Chemistry <i>Filip Du Prez -- Department of Organic Chemistry</i> | 6 | | 2 | A:2 | 180 |
| 7 | E071031 Analytical Techniques <i>Frank Vanhaecke -- Department of Chemistry</i> | 3 | | 2 | A:2 | 90 |
| 8 | E078320 Sustainable Use of Materials: Plastics and Derived Materials <i>Lode Daelemans -- Department of Materials, Textiles and Chemical Engineering</i> | 3 | | 2 | A:2 | 90 |
| 9 | E045910 Heat Engineering and Mass Transport <i>Geraldine Heynderickx -- Department of Materials, Textiles and Chemical Engineering</i> | 6 | | 3 | A:1 | 180 |
| 10 | E071010 Process Engineering <i>Antoon Beyne -- Department of Materials, Textiles and Chemical Engineering</i> | 6 | | 3 | A:1 | 180 |
| 11 | E068660 Polymers <i>Filip Du Prez -- Department of Organic Chemistry</i> | 6 | | 3 | A:1 | 180 |
| 12 | E071040 Introduction to Reactor Science and Kinetics <i>Mark Saeys -- Department of Materials, Textiles and Chemical Engineering</i> | 6 | | 3 | A:1 | 180 |
| 13 | E066020 Microstructure of Materials <i>Marcel Sluiter -- Department of Electromechanical, Systems and Metal Engineering</i> | 6 | | 3 | A:2 | 180 |
| 14 | E069110 Advanced Fibres and Derived Materials <i>Lode Daelemans -- Department of Materials, Textiles and Chemical Engineering</i> | 6 | | 3 | A:2 | 180 |
| 15 | E078621 Environmental Technology and Climate Challenges <i>Joris Thybaut -- Department of Materials, Textiles and Chemical Engineering</i> | 6 | | 3 | A:2 | 180 |
| 16 | E099040 Cross-Course Project <i>Joris Thybaut -- Department of Materials, Textiles and Chemical Engineering</i> | 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 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 |