

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

## 2 General Courses 30 credits

| Nr | Course                                                                                                                                 | CRDT | Ref | MT1 | Session | Study |
|----|----------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|---------|-------|
| 1  | E040420 <b>Mechanics of Materials</b><br><i>Wim Van Paepegem -- Department of Materials, Textiles and Chemical Engineering</i>         | 6    |     | 2   | A:1     | 180   |
| 2  | E020220 <b>Physics II</b><br><i>Christophe Leys -- Department of Applied Physics</i>                                                   | 6    |     | 2   | A:1     | 180   |
| 3  | E045120 <b>Transport Phenomena</b><br><i>Tom De Mulder -- Department of Civil Engineering</i>                                          | 6    |     | 2   | B:2     | 180   |
| 4  | E001321 <b>Mathematical Analysis III</b><br><i>Hendrik De Bie -- Department of Electronics and Information Systems</i>                 | 6    |     | 2   | A:1     | 180   |
| 5  | E005020 <b>Analysis of Systems and Signals</b><br><i>Gert De Cooman -- Department of Electronics and Information Systems</i>           | 3    |     | 2   | B:1     | 90    |
| 6  | E076040 <b>Sustainable Business Operations</b><br><i>Birger Raa -- Department of Industrial Systems Engineering and Product Design</i> | 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><i>Jelle Laverge -- Department of Architecture and Urban Planning</i>                                               | 3    |     | 2   | A:1     | 90    |
| 2  | E000810 Topography<br><i>Alain De Wulf -- Department of Geography</i>                                                                                                 | 3    |     | 2   | A:1     | 90    |
| 3  | E050410 Construction of Buildings<br><i>Jan Belis -- Department of Structural Engineering and Building Materials</i>                                                  | 6    |     | 2   | A:2     | 180   |
| 4  | E044120 Structural Analysis I<br><i>Robby Caspeele -- Department of Structural Engineering and Building Materials</i>                                                 | 6    |     | 2   | A:2     | 180   |
| 5  | E003230 Statistical Data Processing<br><i>Nele De Belie -- Department of Structural Engineering and Building Materials</i>                                            | 3    |     | 2   | A:2     | 90    |
| 6  | E061430 Computer Aided Design<br><i>Nico Van de Weghe -- Department of Geography</i>                                                                                  | 3    |     | 2   | A:2     | 90    |
| 7  | E052720 Concrete Technology<br><i>Geert De Schutter -- Department of Structural Engineering and Building Materials</i>                                                | 3    |     | 2   | A:2     | 90    |
| 8  | E099101 Engineering Project<br><i>Karel Lesage -- Department of Structural Engineering and Building Materials</i>                                                     | 3    |     | 2   | A:2     | 90    |
| 9  | E050310 Building Physics<br><i>Arnold Janssens -- Department of Architecture and Urban Planning</i>                                                                   | 6    |     | 3   | A:1     | 180   |
| 10 | E052412 Concrete Structures: Reinforced Concrete [en]<br><i>Roman Wan-Wendner -- Department of Structural Engineering and Building Materials</i>                      | 6    |     | 3   | A:1     | 180   |
| 11 | E044220 Structural Analysis II<br><i>Kim Van Tittelboom -- Department of Structural Engineering and Building Materials</i>                                            | 6    |     | 3   | A:1     | 180   |
| 12 | E046010 Soil Mechanics<br><i>Wim Haegeman -- Department of Civil Engineering</i>                                                                                      | 6    |     | 3   | A:1     | 180   |
| 13 | E045411 Hydraulics<br><i>Tom De Mulder -- Department of Civil Engineering</i>                                                                                         | 6    |     | 3   | A:1     | 180   |
| 14 | E053510 Geometric Aspects of Roads<br><i>Hans De Backer -- Department of Civil Engineering</i>                                                                        | 3    |     | 3   | A:2     | 90    |
| 15 | E090420 Mechanical Engineering<br><i>Patrick De Baets -- Department of Electromechanical, Systems and Metal Engineering</i>                                           | 3    |     | 3   | A:2     | 90    |
| 16 | E044230 Structural Analysis of Geotechnical Structures<br><i>Raphaël Steenbergen -- Department of Structural Engineering and Building Materials</i>                   | 3    |     | 3   | A:2     | 90    |
| 17 | E044510 Metal Structures [en, nl]<br><i>Kim Van Tittelboom -- Department of Structural Engineering and Building Materials</i>                                         | 6    |     | 3   | A:2     | 180   |
| 18 | E044811 Introduction to Bridge Engineering<br><i>Hans De Backer -- Department of Civil Engineering</i>                                                                | 3    |     | 3   | A:2     | 90    |
| 19 | E051800 Contemporary Challenges in Civil Engineering: Capita Selecta [en, nl]<br><i>Robby Caspeele -- Department of Structural Engineering and Building Materials</i> | 3    |     | 3   | A:2     | 90    |
| 20 | E099000 Cross-Course Project<br><i>Stijn Matthys -- Department of Structural Engineering and Building Materials</i>                                                   | 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><i>Mario Vanhoucke -- Department of Business Informatics and Operations Management</i> | 3    |     | 3   | A:2     | 90    |
| 2  | E711080 Building Services<br><i>Jelle Laverge -- Department of Architecture and Urban Planning</i>                                        | 3    |     | 3   | B:2     | 90    |
| 3  | E016350 Artificial Intelligence [en]<br><i>Aleksandra Pizurica -- Department of Telecommunications and Information Processing</i>         | 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 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 2027-2028     | f: annually, from 2028-2029     | i: annually, from 2029-2030     |
| b: tri-annually | d: bi-annually, from 2027-2028  | g: bi-annually, from 2028-2029  | j: bi-annually, from 2029-2030  |
|                 | e: tri-annually, from 2027-2028 | h: tri-annually, from 2028-2029 | k: tri-annually, from 2029-2030 |