

# **Study Programme**

Academic year 2020-2021

### Global Campus South Korea, Faculty of Sciences, Faculty of Bioscience Engineering

## Bachelor of Science in Molecular Biotechnology

Campus: Incheon

Language of instruction: English

#### Programme version 6

#### 1 General Courses

| Nr | Course  |   | CRDT I                          | Ref MT1 | Session  | Study |
|----|---------|---|---------------------------------|---------|----------|-------|
| 1  | O000132 | English for Academic Studies 1<br>Michael Dunne Department of Environmental Technology, Food Technology and Molecular Biote                                   | 5<br>echnology                  | 1       | A:1      | 150   |
| 2  | O000133 | General Biology<br>Hoo Sun Chung Department of Environmental Technology, Food Technology and Molecular Biote  | 5<br>echnology                  | 1       | B:2, A:1 | 150   |
| 3  | O000078 | Inorganic Chemistry 1: Structure of Matter<br>Francis Verpoort Department of Environmental Technology, Food Technology and Molecular Bio                      | 5<br>htechnology                | 1       | A:1      | 150   |
| 4  | O000131 | English for Academic Studies 2<br>Michael Dunne Department of Environmental Technology, Food Technology and Molecular Biote                                   | 5<br>echnology                  | 1       | B:1, A:2 | 150   |
| 5  | O000087 | Inorganic Chemistry 2: Reactivity of Matter<br>Francis Verpoort Department of Environmental Technology, Food Technology and Molecular Bio                     | 5<br>htechnology                | 1       | A:2      | 150   |
| 6  | O000155 | Introduction to Biochemistry: Biomolecules<br>Sam Van Haute Department of Environmental Technology, Food Technology and Molecular Biote                       | 5<br>echnology                  | 1       | B:1, A:2 | 150   |
| 7  | O000095 | Mathematics 1: Engineering Mathematics<br>Shodhan Rao Department of Environmental Technology, Food Technology and Molecular Biotect                           | 10<br>hnology                   | 1       | A:J      | 300   |
| 8  | O000134 | Physics 1 and 2: Mechanics, Vibration, Waves and<br>Thermodynamics<br>Soebiakto Loekman Department of Environmental Technology, Food Technology and Molecular | 10<br>Biotechnology             | 1       | A:J      | 300   |
| 9  | O000096 | Informatics<br>Wesley De Neve Department of Environmental Technology, Food Technology and Molecular Biot  | 10<br>technology                | 1       | A:J      | 300   |
| 10 | O000082 | Organic Chemistry 1: Structure and Reactivity<br>Philippe Heynderickx Department of Environmental Technology, Food Technology and Molecula                    | 5<br>ar Biotechnology           | 2       | A:1      | 150   |
| 11 | O000136 | Chemical Analytical Methods<br>Tanja Cirkovic Velickovic Department of Environmental Technology, Food Technology and Molec                                    | <b>4</b><br>Sular Biotechnology | 2       | A:1      | 120   |
| 12 | O000137 | Plant Biology<br>Stephen Depuydt Department of Plant Biotechnology and Bioinformatics   | 3                               | 2       | A:1      | 90    |
| 13 | O000138 | Animal Biology<br>Magdalena Radwanska Department of Environmental Technology, Food Technology and Molecu  | 3<br>ılar Biotechnology         | 2       | A:1      | 75    |
| 14 | O000156 | Biochemistry: Metabolism<br>Stefan Magez Department of Environmental Technology, Food Technology and Molecular Biotec   | 4<br>chnology                   | 2       | A:1      | 120   |
| 15 | O000083 | Mathematics 2: Multivariable Calculus and Geometry<br>Shodhan Rao Department of Environmental Technology, Food Technology and Molecular Biotect               | 5<br>hnology                    | 2       | A:1      | 150   |
| 16 | O000091 | Physics 3: Electricity and Magnetism<br>Serge Zhuiykov Department of Environmental Technology, Food Technology and Molecular Biote                            | 5<br>echnology                  | 2       | A:1      | 150   |
| 17 | O000157 | Microbiology<br>Magdalena Radwanska Department of Environmental Technology, Food Technology and Molecu  | 4<br>ılar Biotechnology         | 2       | A:2      | 120   |
| 18 | O000092 | Organic Chemistry 2: Advanced Reactivity<br>Philippe Heynderickx Department of Environmental Technology, Food Technology and Molecula                         | 5<br>ar Biotechnology           | 2       | A:2      | 150   |
| 19 | O000094 | Physics 4: Optics and Physical and Chemical Thermodynamics<br>Serge Zhuiykov Department of Environmental Technology, Food Technology and Molecular Biote      | 5<br>echnology                  | 2       | A:2      | 150   |
| 20 | O000088 | Mathematics 3: Differential Equations   | 5                               | 2       | A:2      | 150   |

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124 credits

| 21  | O000158       | Environmental Chemistry<br>Philippe Heynderickx Department of Environmental Technology, Food Technology and Molecular B              | 4<br>Riotechnology   | 2                | A:2      | 120    |
|-----|---------------|--|----------------------|------------------|----------|--------|
| 22  | O000159       | Modern Aspects of Food<br>Sam Van Haute Department of Environmental Technology, Food Technology and Molecular Biotech                | 4<br>anology         | 2                | A:2      | 120    |
| 23  | O000160       | Molecular Biology: Concepts and Methods<br>Magdalena Radwanska Department of Environmental Technology, Food Technology and Molecular | 4<br>r Biotechnology | 2                | A:2      | 120    |
| 24  | O000161       | Environmental Chemistry and Technology: Concepts and Methods   | 4                    | 2                |          | 120    |
| 2   | General       | Courses  |                      |                  | 120 c    | redits |
| The | e courses pro | ogrammed in the 1st semester of the 4th bachelor's year are to be taken at the   | home campus          | s of Ghent Unive | ersity   |        |
| Nr  | Course        |  | CRDT Re              | ef MT1           | Session  | Study  |
| 1   | O000140       | Process Engineering<br>Philippe Heynderickx Department of Environmental Technology, Food Technology and Molecular E                  | 5<br>Riotechnology   | 3                | A:1      | 150    |
| 2   | O000141       | Process Modelling and Control<br>Shodhan Rao Department of Environmental Technology, Food Technology and Molecular Biotechnology     | 5<br>ology           | 3                | A:1      | 150    |
| 3   | O000050       | Immunology<br>Stefan Magez Department of Environmental Technology, Food Technology and Molecular Biotechn                            | 5<br>ology           | 3                | A:1      | 150    |
| 4   | O000105       | Bioinformatics<br>Wesley De Neve Department of Environmental Technology, Food Technology and Molecular Biotec                        | 5<br>hnoloav         | 3                | A:1      | 150    |
| 5   | O000143       | Molecular Biology<br>Hoo Sup Chung Department of Environmental Technology Food Technology and Molecular Biotect                      | 5                    | 3                | A:1      | 150    |
| 6   | O000139       | Probability and Statistics   | 10                   | 3                | A:J      | 250    |
| 7   | O000120       | Company Visits and Scientific Seminars   | 10                   | 3                | A:J      | 250    |
| 8   | O000024       | Economics and Marketing  | 5                    | 3                | A:2      | 150    |
| 9   | O000114       | Molecular Genetics   | 5                    | 3                | A:2      | 150    |
| 10  | O000111       | Plant Physiology   | 5                    | 3                | A:2      | 125    |
| 11  | 1002412       | Case Studies and Company Visits  | 5                    | 4                | A:1      | 125    |
| 12  | C004085       | Analytical Biochemistry<br>Bart Devreese Department of Biochemistry Physiology and Microbiology                                      | 5                    | 4                | A:1, B:J | 150    |
| 13  | C004086       | Biomedical Physiology<br>Peter Brouckaert Department of Molecular Biology  | 5                    | 4                | A:1, B:J | 150    |
| 14  | 1002413       | Industrial Biotechnology<br>Inge Van Bogaert Department of Biotechnology   | 5                    | 4                | A:1, B:J | 150    |
| 15  | C004087       | Gene Technology<br>Geert Berx Department of Molecular Biology  | 5                    | 4                | A:1      | 150    |
| 16  | C002865       | Bioethics<br>Heidi Mertes Department of Philosophy and Moral Sciences  | 3                    | 4                | B:1      | 80     |
| 17  | O000154       | Research Methodology and Project<br>Michael Dunne Department of Environmental Technology, Food Technology and Molecular Biotech      | 20<br>nology         | 4                | A:J      | 500    |
| 18  | O000151       | Project Management, Entrepreneurship and Intellectual Property<br>Benedikt Sas Department of Food Technology, Safety and Health      | 4                    | 4                | A:2      | 108    |
| 19  | O000145       | Plant Biotechnology<br>Godelieve Ghevsen Department of Biotechnology   | 4                    | 4                | A:2      | 108    |
| 20  | O000150       | Medical Biotechnology<br>Jens Staal Department of Biochemistry, Physiology and Microbiology  | 4                    | 4                | A:2      | 108    |

#### 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 2021-2022     |
|-----------------|---------------------------------|
| b: tri-annually | d: bi-annually, from 2021-2022  |
|                 | e: tri-annually, from 2021-2022 |

f: annually, from 2022-2023 g: bi-annually, from 2022-2023 h: tri-annually, from 2022-2023 i: annually, from 2023-2024 j: bi-annually, from 2023-2024 k: tri-annually, from 2023-2024