

# Study Programme

Academic year 2021-2022

## **Faculty of Sciences**

Exchange programme in Biochemistry and Biotechnology (master's level)

Language of instruction: English

Programme version 4

### 1 General Courses

The exchange programme contains a preferred list of English courses taught at UGent of the Master of Science in Biochemistry and Biotechnology. If you want to choose another course of the main programme, please contact the <u>departmental Erasmus coordinator</u>.

Tips for completing your Learning Agreement:

- Please check the departmental rules for incoming students.
- A minimum number of 24 ECTS per semester (or 48 ECTS per year) should be chosen.
- 80% of the credits should be chosen from the course programme in Biochemistry and Biotechnology (i.e. minimum 19 credits on a total of 24 ECTS).
- Short or long term (up to 1 year) research projects can be chosen. Students should have an agreement with a promoter at the faculty of Sciences (UGent) prior to sending their learning agreement, and include the letter of acceptance with their application.

| Nr | Course  |  | CRDT Ref MT1 | Session | Study |
|----|---------|--|--------------|---------|-------|
| 1  | C003525 | Structure and Function of Biological Macromolecules<br>Savvas Savvides Department of Biochemistry, Physiology and Microbiology | 4            | A:1     | 120   |
| 2  | C003526 | Structural Bioinformatics<br>Savvas Savvides Department of Biochemistry, Physiology and Microbiology                           | 3            | A:1     | 80    |
| 3  | C000500 | Bioinformatics 2 Yves Van de Peer Department of Plant Biotechnology and Bioinformatics   | 3            | A:2     | 80    |
| 4  | C003527 | Biostatistics Caroline De Tender Department of Applied Mathematics and Computer Scien  | 4<br>nce     | A:1     | 120   |
| 5  | C003671 | Biotechnology and Society Geert De Jaeger Department of Plant Biotechnology and Bioinformatics                                 | 3            | A:J     | 80    |
| 6  | C003616 | Systems Biology Bert De Rybel Department of Plant Biotechnology and Bioinformatics   | 4            | A:2     | 120   |
| 7  | C002381 | Biotechnology: Biosafety, GMP and Intellectual Property<br>Koen Vanhalst Department of Molecular Biology                       | 3            | A:1     | 80    |
| 8  | C002865 | Bioethics Farah Focquaert Department of Philosophy and Moral Sciences  | 3            | A:1     | 80    |
| 9  | C002732 | Programming for Bioinformatics Pieter De Bleser Department of Molecular Biology  | 6            | A:1     | 160   |
| 10 | C002700 | Comparative Genomics Klaas Vandepoele Department of Plant Biotechnology and Bioinformatics                                     | 3            | A:2     | 80    |
| 11 | C002739 | Unix System for Bioinformatics Environment<br>Lieven Sterck Department of Plant Biotechnology and Bioinformatics               | 3            | A:2     | 80    |
| 12 | C003083 | Bioinformatics Algorithms  Veerle Fack Department of Applied Mathematics and Computer Science                                  | 3            | A:2     | 80    |
| 13 | C003617 | Modelling of Biological Systems Steven Maere Department of Plant Biotechnology and Bioinformatics                              | 3            | A:1     | 80    |
| 14 | C002703 | Data Mining Yvan Saeys Department of Applied Mathematics and Computer Science  | 3            | A:1     | 80    |
| 15 | C003085 | Databases for Bioinformatics Pieter De Bleser Department of Molecular Biology  | 3            | A:1     | 80    |
| 16 | C003086 | Proteomics Bart Devreese Department of Biochemistry, Physiology and Microbiology   | 3            | A:1     | 80    |
| 17 | C003670 | Biomolecular Production Methods<br>Nico Callewaert Department of Biochemistry, Physiology and Microbiology                     | 4            | A:1     | 110   |

07-05-2024 19:11 p 1

| 18 | C003088  | Drug Design Savvas Savvides Department of Biochemistry, Physiology and Microbiology                             | 3 | A:2 | 80  |
|----|----------|---|---|-----|-----|
| 19 | C003615  | Experimental Structural Biology Savvas Savvides Department of Biochemistry, Physiology and Microbiology         | 5 | A:2 | 135 |
| 20 | C002695  | Bionanotechnology<br>Kevin Braeckmans Department of Pharmaceutics   | 3 | A:1 | 80  |
| 21 | C002717  | Metabolic Engineering Alain Goossens Department of Plant Biotechnology and Bioinformatics                       | 3 | A:1 | 80  |
| 22 | C002713  | Glycobiology Nico Callewaert Department of Biochemistry, Physiology and Microbiology                            | 3 | A:1 | 80  |
| 23 | C002725  | Molecular Pathophysiology and Experimental Therapy<br>Peter Brouckaert Department of Molecular Biology          | 6 | A:1 | 160 |
| 24 | C002738  | Transgenetics of Animal Model Organisms Kris Vleminckx Department of Molecular Biology                          | 6 | A:2 | 160 |
| 25 | C002708  | Experimental Molecular Cell Biology Rudi Beyaert Department of Molecular Biology                                | 3 | A:2 | 80  |
| 26 | C002716  | Human Genetics and Genetic Diseases Bruce Poppe Department of Biomolecular Medicine                             | 3 | A:1 | 80  |
| 27 | C002722  | Molecular Cancer Biology Geert Berx Department of Molecular Biology   | 3 | A:1 | 80  |
| 28 | C002728  | Neurobiology Geert van Loo Department of Molecular Biology  | 3 | A:1 | 80  |
| 29 | C002711  | Food Microbiology and Safety Kurt Houf Department of Veterinary and Biosciences                                 | 3 | A:1 | 80  |
| 30 | C004007  | Molecular Bacteria-Host Interactions  Aurélien Carlier Department of Biochemistry, Physiology and Microbiology  | 3 | A:2 | 80  |
| 31 | C002715  | Host-Virus Interactions  Xavier Saelens Department of Biochemistry, Physiology and Microbiology                 | 3 | A:1 | 80  |
| 32 | C002719  | Microbial Genomics Aurélien Carlier Department of Biochemistry, Physiology and Microbiology                     | 3 | A:2 | 80  |
| 33 | C002724  | Molecular Microbial Ecology<br>Marie Joossens Department of Biochemistry, Physiology and Microbiology           | 3 | A:2 | 80  |
| 34 | C003095  | Plant Environment Interactions Dominique Van Der Straeten Department of Biology                                 | 3 | A:1 | 80  |
| 35 | C003097  | Plant Biotic Interactions<br>Sofie Goormachtig Department of Plant Biotechnology and Bioinformatics             | 3 | A:2 | 80  |
| 36 | C003098  | The Plant Cell Lieven De Veylder Department of Plant Biotechnology and Bioinformatics                           | 3 | A:2 | 80  |
| 37 | C003099  | Plant Growth and Development<br>Moritz Nowack Department of Plant Biotechnology and Bioinformatics              | 3 | A:2 | 80  |
| 38 | C003100  | Molecular Plant Breeding<br>Isabel Roldán-Ruiz Department of Plant Biotechnology and Bioinformatics             | 3 | A:1 | 80  |
| 39 | C003102  | The Plant Factory Frank Van Breusegem Department of Plant Biotechnology and Bioinformatics                      | 3 | A:1 | 80  |
| 40 | C003825  | Functional Plant Genomics<br>Lieven De Veylder Department of Plant Biotechnology and Bioinformatics             | 3 | A:1 | 80  |
| 41 | C003618  | Advanced Plant Biotic Interactions Bartel Vanholme Department of Plant Biotechnology and Bioinformatics         | 3 | A:1 | 80  |
| 42 | C003163  | Plant Yield<br>Dirk Inzé Department of Plant Biotechnology and Bioinformatics                                   | 3 | A:1 | 80  |
| 43 | C004006  | Advanced Plant Cell Biology and Signaling Daniël Van Damme Department of Plant Biotechnology and Bioinformatics | 3 |     | 80  |
| 44 | C002681  | Advanced Programming in Bioinformatics Pieter De Bleser Department of Molecular Biology                         | 3 | A:1 | 80  |
| 45 | C002720  | Molecular and Experimental Immunology  Martin Guilliams Department of Molecular Biology                         | 3 | A:1 | 80  |
| 46 | C002697  | Biotechnological Techniques in Medical Diagnostics Dieter Deforce Department of Pharmaceutics                   | 3 | B:2 | 80  |
| 07 | -05-2024 | 19:11   |   |     | p 2 |

| 47 | C003480 | Biopharmacy Stefaan De Smedt Department of Pharmaceutics   | 3 | A:2           | 80  |
|----|---------|--|---|---------------|-----|
| 48 | C002699 | Cellular Stress, Cell Death and Senescence<br>Mathieu Bertrand Department of Molecular Biology   | 3 | A:2           | 80  |
| 49 | C003311 | Phylogenetics Olivier De Clerck Department of Biology  | 4 | A:1           | 120 |
| 50 | C002714 | Host-Parasite Interactions Dirk de Graaf Department of Biochemistry, Physiology and Microbiology   | 3 | A:1           | 80  |
| 51 | C002737 | The Eukaryotic Cell Cycle<br>Lieven De Veylder Department of Plant Biotechnology and Bioinformatics                                      | 3 | A:1           | 80  |
| 52 | C002706 | Epigenetics Wim Vanden Berghe Department of Molecular Biology  | 3 | A:1           | 80  |
| 53 | C002727 | Molecular Simulations of Biosystems  Toon Verstraelen Department of Physics and Astronomy  | 3 | A:1           | 80  |
| 54 | C003160 | Advanced Experimental Macromolecular X-ray Crystallography<br>Kenneth Verstraete Department of Biochemistry, Physiology and Microbiology | 3 | A:1           | 80  |
| 55 | C003695 | Applied High-throughput Analysis Tim De Meyer Department of Data Analysis and Mathematical Modelling                                     | 6 | A:1           | 180 |
| 56 | C004394 | Microbes in Biotechnology<br>Marie Joossens Department of Biochemistry, Physiology and Microbiology                                      | 6 | A:1           | 150 |
| 57 | C003242 | Research Project   | 0 | A:1, C:J, B:2 | 0   |

#### 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 2022-2023 f: annually, from 2023-2024 i: annually, from 2024-2025 g: bi-annually, from 2023-2024 g: bi-annually, from 2023-2024 p: tri-annually, from 2022-2023 h: tri-annually, from 2023-2024 k: tri-annually, from 2024-2025

07-05-2024 19:11 p 3