

Study Programme

Academic year 2024-2025

Faculty of Sciences

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

Language of instruction: English

Programme version 5

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.

Tips for completing your Learning Agreement:

- Please check the <u>departmental rules</u> 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 Cours		CRDT Ref MT1	Session	Study
1 C003		4	A:1	120
2 C003	26 Structural Bioinformatics Savvas Savvides Department of Biochemistry, Physiology and Microbiology	3	A:1	80
3 C000	00 Bioinformatics 2 Kathleen Marchal Department of Information Technology	3	A:2	80
4 C003	27 BiostatisticsKathleen Marchal Department of Information Technology	4	A:1	120
5 C003	71 Biotechnology and Society Marie Joossens Department of Biochemistry, Physiology and Microbiology	3	A:J	80
6 C003	 Systems Biology Bert De Rybel Department of Plant Biotechnology and Bioinformatics 	4	A:2	120
7 C002	Biotechnology: Biosafety, GMP and Intellectual Property Koen Vanhalst Department of Molecular Biology	3	A:1	80
8 C002	65 Bioethics Farah Focquaert Department of Philosophy and Moral Sciences	3	A:1	80
9 C002	Programming for Bioinformatics Pieter De Bleser Department of Molecular Biology	6	A:1	160
10 C002	OO Comparative Genomics Klaas Vandepoele Department of Plant Biotechnology and Bioinformatics	3	A:2	80
11 C004	56 Linux for Bioinformatics Environment Herman De Beukelaer Department of Plant Biotechnology and Bioinformatic	3 es	A:2	80
12 C003	Bioinformatics Algorithms Veerle Fack Department of Applied Mathematics and Computer Science	3	A:2	80
13 C003	17 Modelling of Biological Systems Steven Maere Department of Plant Biotechnology and Bioinformatics	3	A:1	80
14 C002	Data Mining Yvan Saeys Department of Applied Mathematics and Computer Science	3	A:1	80
15 C003	Databases for Bioinformatics Pieter De Bleser Department of Molecular Biology	3	A:1	80
16 C003	Proteomics Bart Devreese Department of Biochemistry, Physiology and Microbiology	3	A:1	80
17 C003	70 Biomolecular Production Methods Nico Callewaert Department of Biochemistry, Physiology and Microbiology	4	A:1	110

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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 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 Charlotte Scott 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 Roosmarijn Vandenbroucke 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 Petra Van Damme 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 Caroline De Tender Department of Biochemistry, Physiology and Microbiology	3	A:2	80
33	C002724	Molecular Microbial Ecology 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 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 Tom Beeckman Department of Plant Biotechnology and Bioinformatics	3	A:2	80
38	C003100	Molecular Plant Breeding Tom Ruttink 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 Klaas Vandepoele Department of Plant Biotechnology and Bioinformatics	3	A:1	80
41	C003618	Advanced Plant Biotic Interactions Sofie Goormachtig Department of Plant Biotechnology and Bioinformatics	3	A:1	80
42	C003163	Plant Yield Hilde Nelissen Department of Plant Biotechnology and Bioinformatics	3	A:1	80
43	C004006	Advanced Plant Cell Biology and Signaling Bert De Rybel Department of Plant Biotechnology and Bioinformatics	3	A:1	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
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47 C002699	Cellular Stress, Cell Death and Senescence Peter Vandenabeele Department of Molecular Biology	3	A:1	80
48 C003311	Phylogenetics Olivier De Clerck Department of Biology	4	A:1	120
49 C002714	Host-Parasite Interactions Dirk de Graaf Department of Biochemistry, Physiology and Microbiology	3	A:1	80
50 C002737	The Eukaryotic Cell Cycle Lieven De Veylder Department of Plant Biotechnology and Bioinformatics	3	A:1	80
51 C002706	Epigenetics Wim Vanden Berghe Department of Molecular Biology	3	A:1	80
52 C002727	Molecular Simulations of Biosystems Toon Verstraelen Department of Physics and Astronomy	3	A:1	80
53 C004455	Advanced Biomolecular 3D-structure Determination by X-ray Crystallography and Cryo-Electron Microscopy Kenneth Verstraete Department of Biochemistry, Physiology and Microbiology	3	A:1	80
54 C003695	Applied High-throughput Analysis Tim De Meyer Department of Data Analysis and Mathematical Modelling	6	A:1	180
55 C004394	Microbes in Biotechnology Marie Joossens Department of Biochemistry, Physiology and Microbiology	6	A:1	150
56 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 pl: Polish sh: Kroatian/Serbian zh: Chinese ja: Japanese cs: Czech el: Greek fr: French pt: Portuguese nl: Dutch 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 2025-2026 f: annually, from 2026-2027 i: annually, from 2027-2028 g: bi-annually, from 2026-2027 g: bi-annually, from 2026-2027 g: bi-annually, from 2027-2028 e: tri-annually, from 2025-2026 h: tri-annually, from 2026-2027 k: tri-annually, from 2027-2028

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