

# 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

### **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 departmental Erasmus coordinator.

- 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	Course		CRDT F	Ref MT1	Session	Study
1	C003525	Structure and Function of Biological Macromolecules Savvas Savvides Department of Biochemistry, Physiology and Microbiology	4		A:1	120
2	C003526	Structural Bioinformatics 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 Mathematics, Computer Science and Statistics	4		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 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 Lieven Sterck Department of Plant Biotechnology and Bioinformatics	3		A:2	80
12	C003083	Bioinformatics Algorithms Veerle Fack Department of Mathematics, Computer Science and Statistics	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 Mathematics, Computer Science and Statistics	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 Nico Callewaert Department of Biochemistry, Physiology and Microbiology	4		A:1	110

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 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 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 Moritz Nowack Department of Plant Biotechnology and Bioinformatics	3	A:2	80
38	C003100	Molecular Plant Breeding 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 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 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

47	C003480	Biopharmacy Stefaan De Smedt Department of Pharmaceutics	3	A:2	80
48	C002699	Cellular Stress, Cell Death and Senescence 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 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 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 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
b: tri-annually	d: bi-annually, from 2022-2023	g: bi-annually, from 2023-2024	j: bi-annually, from 2024-2025
	e: tri-annually, from 2022-2023	h: tri-annually, from 2023-2024	k: tri-annually, from 2024-2025