

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 8

## 1 General Courses 120 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	O000132 English for Academic Studies 1 <i>Jonathan Ozelton -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:1	150
2	O000133 General Biology <i>Hoo Sun Chung -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:1	150
3	O000078 Inorganic Chemistry 1: Structure of Matter <i>Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:1	150
4	O000185 Introduction to Engineering Mathematics <i>Joris Vankerschaver -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:1	150
5	O000187 Physics 1: Mechanics, Motion, Energy and Momentum <i>Soebiahto Loekman -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:1	150
6	O000131 English for Academic Studies 2 <i>Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	B:1, A:2	150
7	O000087 Inorganic Chemistry 2: Reactivity of Matter <i>Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:2	150
8	O000155 Introduction to Biochemistry: Biomolecules <i>Mahta Mirzaei -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:2	150
9	O000186 Mathematics 1: One-variable calculus and algebra <i>Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:2	150
10	O000188 Physics 2: Vibration, Waves and Thermodynamics <i>Soebiahto Loekman -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		1	A:2	150
11	O000096 Informatics <i>Wesley De Neve -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	10		1	A:J	300
12	O000082 Organic Chemistry 1: Structure and Reactivity <i>Di Wu -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		2	A:1	150
13	O000136 Chemical Analytical Methods <i>Jihae Park -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	4		2	A:1	120
14	O000137 Plant Biology <i>Stephen Depuydt -- Department of Plant Biotechnology and Bioinformatics</i>	3		2	A:1	90
15	O000138 Animal Biology <i>Magdalena Radwanska -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	3		2	A:1	75
16	O000156 Biochemistry: Metabolism <i>Stefan Magez -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	4		2	A:1	120
17	O000083 Mathematics 2: Multivariable Calculus and Geometry <i>Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		2	A:1	150
18	O000091 Physics 3: Electricity and Magnetism <i>Serge Zhuikov -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		2	A:1	150
19	O000157 Microbiology <i>Magdalena Radwanska -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	4		2	A:2	120
20	O000092 Organic Chemistry 2: Advanced Reactivity <i>Di Wu -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		2	A:2	150

21	O000094	Physics 4: Optics and Physical and Chemical Thermodynamics <i>Serge Zhuikov -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5	2	A:2	150
22	O000088	Mathematics 3: Differential Equations <i>Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5	2	A:2	150
23	O000161	Environmental Chemistry and Technology: Concepts and Methods <i>Jihae Park -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	4	2	A:2	120
24	O000159	Modern Aspects of Food <i>Sam Van Haute -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	4	2	A:2	120
25	O000160	Molecular Biology: Concepts and Methods <i>Magdalena Radwanska -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	4	2	A:2	120

## 2 General Courses 110 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	O000140 Process Engineering <i>Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	A:1	150
2	O000141 Process Modelling and Control <i>Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	A:1	150
3	O000050 Immunology <i>Stefan Magez -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	A:1	150
4	O000178 Bioinformatics 1 <i>Wesley De Neve -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	A:1	150
5	O000179 Molecular Biology: Advanced Topics in Eukaryotes <i>Hoo Sun Chung -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	6		3	A:1	150
6	O000189 Probability and Statistics <i>Joris Vankerschaver -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	A:1	150
7	O000162 Scientific Research Writing <i>Jonathan Ozeltan -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	B:2, A:J	150
8	O000180 Bioinformatics 2 <i>Zhen Li -- Department of Plant Biotechnology and Bioinformatics</i>	5		3	A:2	150
9	O000024 Economics and Marketing <i>Christine Yung Hung -- Department of Agricultural Economics</i>	5		3	A:2	150
10	O000190 Introduction to Statistical Modelling <i>Joris Vankerschaver -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		3	A:2	150
11	O000181 Molecular Genetics <i>H��lo��se Bastiaanse -- Department of Plant Biotechnology and Bioinformatics</i>	3		3	A:2	90
12	O000182 Plant Physiology <i>Jonas De Saeger -- Department of Plant Biotechnology and Bioinformatics</i>	3		3	A:2	90
13	O000183 Integrated Practicum 1: Plant Genetics and Physiology <i>Eun Kyung Yoon -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	3		3	A:2	75
14	C004085 Analytical Biochemistry <i>Els Van Damme -- Department of Biotechnology</i>	5		4	A:1	150
15	C004086 Biomedical Physiology <i>Dirk de Graaf -- Department of Biochemistry, Physiology and Microbiology</i>	5		4	A:1	150
16	I002852 Industrial Biotechnology <i>Inge Van Bogaert -- Department of Biotechnology</i>	4		4	A:1	120
17	C004396 Gene Technology <i>Geert Berx -- Department of Molecular Biology</i>	4		4	A:1	120
18	C004397 Integrated Practicum 2: Gene Technology in Practice <i>Xavier Saelens -- Department of Biochemistry, Physiology and Microbiology</i>	3		4	A:1	75
19	C002865 Bioethics <i>Farah Focquaert -- Department of Philosophy and Moral Sciences</i>	3		4	B:1	80
20	O000163 Management, Entrepreneurship and Intellectual Property <i>Benedikt Sas -- Department of Food Technology, Safety and Health</i>	4		4	A:2	108
21	O000145 Plant Biotechnology <i>Godelieve Gheysen -- Department of Biotechnology</i>	4		4	A:2	108
22	O000184 Medical Biotechnology <i>Jens Staal -- Department of Biochemistry, Physiology and Microbiology</i>	3		4	A:2	90

23	O000164	Company Visits and Seminars <i>Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	3	4	A:2	90
24	O000165	Bachelor's Project <i>Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	12	4	A:J	360

### 3 Elective Courses 10 credits

#### 3.1 Programme-specific Elective Courses 5 credits

Subscribe to 5 credit units from the following list.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C004096 Molecular Cell Biology <i>Roosmarijn Vandenbroucke -- Department of Molecular Biology</i>	5		4	A:1	130
2	I002853 Research-to-Business Case Studies <i>Erik Meers -- Department of Green Chemistry and Technology</i>	5		4	A:1	125

#### 3.2 Personal Professional Development elective module 5 credits

Subscribe to 5 credit units from one of the modules from the following list.  
Subject to approval by the Curriculum Committee.

##### 3.2.1 Personal Professional Development 5 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	O000166 Personal Professional Development <i>Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5		4	A:2	135

##### 3.2.2 Course offer GUGC-UGent 5 credits

Subscribe to no more than 5 credit units from the following list.

The letter in the "Ref" column indicates in which programme the course can be taken as elective (E = Environmental Technology; F = Food Technology; M = Molecular Biotechnology; ALL = all programmes).

Nr	Course	CRDT	Ref	MT1	Session	Study
1	O000168 Experimental Food Biochemistry <i>Mahta Mirzaei -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5	E,M	4	A:2	150
2	O000152 Food Microbiology and Preservation <i>Sam Van Haute -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5	E,M	4	A:2	150
3	O000180 Bioinformatics 2 <i>Zhen Li -- Department of Plant Biotechnology and Bioinformatics</i>	5	E,F	4	A:2	150
4	O000167 Reflection on Sustainable Development	5	ALL	4	A:2	125
5	O000050 Immunology <i>Stefan Magez -- Department of Environmental Technology, Food Technology and Molecular Biotechnology</i>	5	E,F	4	A:1	150
6	O000111 Plant Physiology <i>Jonas De Saeger -- Department of Plant Biotechnology and Bioinformatics</i>	5	E,F	4	A:2	125

##### 3.2.3 Course offer Incheon Global Campus Universities 5 credits

Subscribe to 5 credit units from courses offered at the partner universities at Incheon Global Campus.

Subject to approval by the Curriculum Committee.

##### 3.2.4 Course offer Korean Partner Universities 5 credits

Subscribe to 5 credit units from courses offered at Korean partner universities.

Subject to approval by the Curriculum Committee.

## 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 2023-2024	f: annually, from 2024-2025	i: annually, from 2025-2026
b: tri-annually	d: bi-annually, from 2023-2024	g: bi-annually, from 2024-2025	j: bi-annually, from 2025-2026
	e: tri-annually, from 2023-2024	h: tri-annually, from 2024-2025	k: tri-annually, from 2025-2026