

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

Bachelor of Science in Environmental Technology

Campus: Incheon

Language of instruction: English

Programme version 11

## 1 General Courses 120 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	O000132 English for Academic Studies 1 Jonathan Ozelton -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:1	150
2	O000133 General Biology Hoo Sun Chung -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:1	150
3	O000078 Inorganic Chemistry 1: Structure of Matter Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:1	150
4	O000185 Introduction to Engineering Mathematics Joris Vankerschaver -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:1	150
5	O000187 Physics 1: Mechanics, Motion, Energy and Momentum Soebiakto Loekman -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:1	150
6	O000131 English for Academic Studies 2 Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	B:1, A:2	150
7	O000087 Inorganic Chemistry 2: Reactivity of Matter Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:2	150
8	O000155 Introduction to Biochemistry: Biomolecules Mahta Mirzaei -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:2	150
9	O000186 Mathematics 1: One-variable calculus and algebra Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:2	150
10	O000188 Physics 2: Vibration, Waves and Thermodynamics Soebiakto Loekman -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		1	A:2	150
11	O000096 Informatics Wesley De Neve -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	10		1	A:J	300
12	O000082 Organic Chemistry 1: Structure and Reactivity Di Wu -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		2	A:1	150
13	O000136 Chemical Analytical Methods Jihae Park -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	4		2	A:1	120
14	O000137 Plant Biology Dong Hye Seo -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	3		2	A:1	90
15	O000138 Animal Biology Magdalena Radwanska -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	3		2	A:1	75
16	O000156 Biochemistry: Metabolism Dongik Park -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	4		2	A:1	120
17	O000083 Mathematics 2: Multivariable Calculus and Geometry Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		2	A:1	150
18	O000091 Physics 3: Electricity and Magnetism Serge Zhuiykov -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		2	A:1	150
19	O000157 Microbiology Magdalena Radwanska -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	4		2	A:2	120
20	O000092 Organic Chemistry 2: Advanced Reactivity Di Wu -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		2	A:2	150
21	O000094 Physics 4: Optics and Physical and Chemical Thermodynamics Serge Zhuiykov -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		2	A:2	150

22	O000088	Mathematics 3: Differential Equations Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5	2	A:2	150
23	O000161	Environmental Chemistry and Technology: Concepts and Methods Jihae Park -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	4	2	A:2	120
24	O000159	Modern Aspects of Food Sam Van Haute -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	4	2	A:2	120
25	O000160	Molecular Biology: Concepts and Methods Magdalena Radwanska -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	4	2	A:2	120

## 2 General Courses

106 credits

The courses programmed in the 1st semester of the 4th bachelor's year are to be taken at the home campus of Ghent University.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	O000140 Process Engineering Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		3	A:1	150
2	O000141 Process Modelling and Control Shodhan Rao -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		3	A:1	150
3	O000100 Process Technology Frederik Ronsse -- Department of Green Chemistry and Technology	5		3	A:1	150
4	O000170 Green Chemistry and Biotechnology Di Wu -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		3	A:1	150
5	O000171 Air Treatment and Technology Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		3	A:1	150
6	O000189 Probability and Statistics Joris Vankerschaver -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		3	A:1	150
7	O000162 Scientific Research Writing Jonathan Ozelton -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		3	B:2, A:J	150
8	O000024 Economics and Marketing Christine Yung Hung -- Department of Agricultural Economics	5		3	A:2	150
9	O000190 Introduction to Statistical Modelling Joris Vankerschaver -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		3	A:2	150
10	O000172 Waste Valorization Erik Meers -- Department of Green Chemistry and Technology	5		3	A:2	150
11	O000173 Remediation of Soil and Sediment Filip Tack -- Department of Green Chemistry and Technology	5		3	A:2	150
12	O000174 Water Treatment and Technology Korneel Rabaey -- Department of Biotechnology	5		3	A:2	150
13	I002853 Research-to-Business Case Studies Erik Meers -- Department of Green Chemistry and Technology	5		4	A:1	125
14	I002606 Environmental Risk Assessment Karel De Schampheleere -- Department of Animal Sciences and Aquatic Ecology	5		4	A:1	150
15	I002535 Applied Marine Ecology Colin Janssen -- Department of Animal Sciences and Aquatic Ecology	3		4	A:1	90
16	I002701 Clean Technology: Theory and Concepts Sophie Huysveld -- Department of Green Chemistry and Technology	3		4	A:1	90
17	O000163 Management, Entrepreneurship and Intellectual Property Benedikt Sas -- Department of Food Technology, Safety and Health	4		4	A:2	108
18	O000175 Environmental Law and Management Stijn Speelman -- Department of Agricultural Economics	5		4	A:2	150
19	O000176 Modelling and Data Analysis for Environmental Applications Philippe Heynderickx -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	3		4	A:2	90
20	O000177 Microbial Reuse Technology Di Wu -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	3		4	A:2	90
21	O000164 Company Visits and Seminars Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	3		4	A:2	90
22	O000165 Bachelor's Project Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	12		4	A:J	360

## 3 Elective Courses

14 credits

### 3.1 Programme-specific Elective Courses

9 credits

[Subscribe to 9 credit units from the following list.](#)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I002504 Applied Freshwater Ecology Peter Goethals -- Department of Animal Sciences and Aquatic Ecology	3		4	A:1	90
2	I002609 Environmental Microbiology Nico Boon -- Department of Biotechnology	3		4	A:1	90
3	I002702 Clean Technology: Assessment Methods Sophie Huysveld -- Department of Green Chemistry and Technology	3		4	A:1	90
4	I002752 Advanced Wastewater Treatment Process Design Eveline Volcke -- Department of Green Chemistry and Technology	3		4	A:1	90
5	I002776 Processes in Practice Eveline Volcke -- Department of Green Chemistry and Technology	3		4	A:1	90
6	I001439 Environmental Noise Timothy Van Renterghem -- Department of Information Technology	3		4	A:1	75
7	I002604 Oceans and Human Health Jana Asselman -- Department of Animal Sciences and Aquatic Ecology	3		4	A:1	90

### 3.2 Elective Courses

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

[Subscribe to 5 credit units from the following list.](#)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	O000166 Personal Professional Development Michael Dunne -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5		4	A:2	135
2	O000191 Intercultural Communication: Concepts and Skills Mara Santi -- Department of Literary Studies	3		4	A:2	90
3	O000192 Intercultural Communication: Leadership and Professional Competencies Mara Santi -- Department of Literary Studies	3		4	A:2	75

#### 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 Mahta Mirzaei -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5	E,M	4	A:2	150
2	O000152 Food Microbiology and Preservation Sam Van Haute -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5	E,M	4	A:2	150
3	O000180 Bioinformatics 2 Zhen Li -- Department of Plant Biotechnology and Bioinformatics	5	E,F	4	A:2	150
4	O000050 Immunology Magdalena Radwanska -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	5	E,F	4	A:1	150
5	O000111 Plant Physiology Dong Hye Seo -- Department of Environmental Technology, Food Technology and Molecular Biotechnology	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 2025-2026	f: annually, from 2026-2027	i: annually, from 2027-2028
b: tri-annually	d: bi-annually, from 2025-2026	g: bi-annually, from 2026-2027	j: bi-annually, from 2027-2028
	e: tri-annually, from 2025-2026	h: tri-annually, from 2026-2027	k: tri-annually, from 2027-2028