

Faculty of Bioscience Engineering

Bachelor of Science in Bioscience Engineering Technology

Language of instruction: Dutch

Programme version 10

## 1 General Courses 129 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700266 <b>Calculus I</b> <i>Jan Baetens -- Department of Data Analysis and Mathematical Modelling</i>	6		1	A:1	180
2	I700197 <b>Programming I</b> <i>Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling</i>	4		1	A:1	120
3	I700198 <b>Mechanics, Oscillations and Waves</b> <i>Dirk Poelman -- Department of Solid State Sciences</i>	6		1	A:1	180
4	I700199 <b>General Chemistry I</b> <i>Pieter Vermeir -- Department of Green Chemistry and Technology</i>	6		1	A:1	180
5	I700200 <b>Zoology: Morphology and Systematics</b> <i>Ilias Semmouri -- Department of Animal Sciences and Aquatic Ecology</i>	4		1	A:1	120
6	I700201 <b>Botany: Morphology and Diversity</b> <i>Pieter De Frenne -- Department of Environment</i>	4		1	A:1	120
7	I700267 <b>Linear Algebra and Calculus II</b> <i>Jan Baetens -- Department of Data Analysis and Mathematical Modelling</i>	5		1	A:2	150
8	I700203 <b>Programming II</b> <i>Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling</i>	3		1	A:2	90
9	I700204 <b>Thermodynamics</b> <i>Frederik Ronsse -- Department of Green Chemistry and Technology</i>	4		1	A:2	120
10	I700205 <b>General Chemistry II</b> <i>Pieter Vermeir -- Department of Green Chemistry and Technology</i>	4		1	A:2	120
11	I700206 <b>Organic Chemistry</b> <i>Sven Mangelincx -- Department of Green Chemistry and Technology</i>	5		1	A:2	150
12	I700207 <b>Biochemistry</b> <i>Jessika De Clippeleer -- Department of Biotechnology</i>	5		1	A:2	150
13	I700190 <b>Cell Biology</b> <i>Kris Audenaert -- Department of Plants and Crops</i>	4		1	A:2	120
14	I700208 <b>Differential Equations</b> <i>Michiel Stock -- Department of Data Analysis and Mathematical Modelling</i>	4		2	A:1	120
15	I700269 <b>Applied Fluid Mechanics</b> <i>Niko Verhoest -- Department of Environment</i>	5		2	A:1	150
16	I700209 <b>Electricity and Magnetism</b> <i>Toon Verstraelen -- Department of Physics and Astronomy</i>	4		2	A:1	120
17	I700216 <b>Analytical Chemistry</b> <i>Pieter Vermeir -- Department of Green Chemistry and Technology</i>	6		2	A:1	180
18	I700272 <b>Probability Theory and Statistics</b> <i>Stijn Luca -- Department of Data Analysis and Mathematical Modelling</i>	6		2	A:2	180
19	I700268 <b>Optics and Sensors</b> <i>Philippe Smet -- Department of Solid State Sciences</i>	3		2	A:2	90
20	I700211 <b>Genetics</b> <i>Kris Audenaert -- Department of Plants and Crops</i>	5		2	A:2	150

21	I700217	Microbiology <i>Leen De Gelder -- Department of Biotechnology</i>	5	2	A:2	150
22	I700218	Ecology <i>Kim Calders -- Department of Environment</i>	3	2	A:2	90
23	I700219	Process Technology I <i>Mia Eeckhout -- Department of Food Technology, Safety and Health</i>	5	3	A:1	150
24	I700224	Quality Management Systems in the Food Chain <i>Liesbeth Jaccsens -- Department of Food Technology, Safety and Health</i>	3	3	A:1	90
25	I700220	Environmental Sciences <i>Leen De Gelder -- Department of Biotechnology</i>	4	3	A:1	120
26	I700221	Entrepreneurship and Business Administration <i>Joachim Schouteten -- Department of Agricultural Economics</i>	6	3	A:1	180
27	I700040	Human Nutrition <i>Kathy Messens -- Department of Biotechnology</i>	3	3	A:2	90
28	I700273	Bachelor Project <i>Ingrid De Leyn -- Department of Food Technology, Safety and Health</i>	7	3	A:J	210

## 2 Elective Courses

Subscribe to 1 from the following list.

### 2.1 Agriculture

51 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700212 Plant Physiology <i>Geert Haesaert -- Department of Plants and Crops</i>	5		2	A:1	150
2	I700213 Animal Physiology <i>Jeroen Degroote -- Department of Animal Sciences and Aquatic Ecology</i>	5		2	A:1	150
3	I700240 Soil Science <i>Steven Sleutel -- Department of Environment</i>	3		2	A:2	90
4	I700018 Plant Production and Ecophysiology <i>Geert Haesaert -- Department of Plants and Crops</i>	4		2	A:2	120
5	I700042 Reproductive Physiology of Animals <i>Jeroen Degroote -- Department of Animal Sciences and Aquatic Ecology</i>	4		2	A:2	120
6	I700238 Agrobiotechnology <i>Stefaan Werbrouck -- Department of Plants and Crops</i>	4		3	A:1	120
7	I700236 Digestive Physiology of Animals <i>Veerle Fievez -- Department of Animal Sciences and Aquatic Ecology</i>	5		3	A:1	150
8	I700174 Applied Plant Breeding <i>Geert Haesaert -- Department of Plants and Crops</i>	3		3	A:2	90
9	I700020 Crop Protection <i>Geert Haesaert -- Department of Plants and Crops</i>	6		3	A:2	180
10	I700034 Plant Nutrition and Soil Management <i>Stefaan De Neve -- Department of Environment</i>	4		3	A:2	120
11	I700026 Livestock Housing and Agricultural Machinery <i>Bart Sonck -- Department of Animal Sciences and Aquatic Ecology</i>	8		3	A:2	240

### 2.2 Horticulture

51 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700212 Plant Physiology <i>Geert Haesaert -- Department of Plants and Crops</i>	5		2	A:1	150
2	I700213 Animal Physiology <i>Jeroen Degroote -- Department of Animal Sciences and Aquatic Ecology</i>	5		2	A:1	150
3	I700240 Soil Science <i>Steven Sleutel -- Department of Environment</i>	3		2	A:2	90
4	I700120 Horticultural Crops <i>Stefaan Werbrouck -- Department of Plants and Crops</i>	4		2	A:2	120
5	I700121 Controlled Greenhouse Systems <i>Emmy Dhooghe -- Department of Plants and Crops</i>	4		2	A:2	120
6	I700238 Agrobiotechnology <i>Stefaan Werbrouck -- Department of Plants and Crops</i>	4		3	A:1	120

7	I700035	Plant Tissue Culture <i>Stefaan Werbrouck -- Department of Plants and Crops</i>	4	3	A:1	120
8	I700237	Pomology <i>Filip Debersaques -- Department of Plants and Crops</i>	5	3	A:1	150
9	I700174	Applied Plant Breeding <i>Geert Haesaert -- Department of Plants and Crops</i>	3	3	A:2	90
10	I700020	Crop Protection <i>Geert Haesaert -- Department of Plants and Crops</i>	6	3	A:2	180
11	I700034	Plant Nutrition and Soil Management <i>Stefaan De Neve -- Department of Environment</i>	4	3	A:2	120
12	I700239	Glasshouse Vegetable Production <i>Emmy Dhooghe -- Department of Plants and Crops</i>	4	3	A:2	120

### 2.3 Food Industry

51 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700212 Plant Physiology <i>Geert Haesaert -- Department of Plants and Crops</i>	5		2	A:1	150
2	I700213 Animal Physiology <i>Jeroen Degroote -- Department of Animal Sciences and Aquatic Ecology</i>	5		2	A:1	150
3	I700027 Food Chemistry <i>Mia Eeckhout -- Department of Food Technology, Safety and Health</i>	8		2	A:2	240
4	I700270 Processing Technology of Potatoes, Vegetables, and Fruit <i>Imca Sampers -- Department of Food Technology, Safety and Health</i>	3		2	A:2	90
5	I700157 Molecular Analysis Techniques <i>Kathy Messens -- Department of Biotechnology</i>	4		3	A:1	120
6	I700222 Food Microbiology <i>Frank Devlieghere -- Department of Food Technology, Safety and Health</i>	5		3	A:1	150
7	I700225 Instrumental Analytical Chemistry <i>Pieter Vermeir -- Department of Green Chemistry and Technology</i>	5		3	A:2	150
8	I700152 Process Technology II <i>Mia Eeckhout -- Department of Food Technology, Safety and Health</i>	4		3	A:2	120
9	I700274 Technology and Functionality of Food Components <i>Filip Van Bockstaele -- Department of Food Technology, Safety and Health</i>	4		3	A:2	120
10	I700226 Food Preservation Technology <i>Tony Ruyssen -- Department of Food Technology, Safety and Health</i>	4		3	A:2	120
11	I700227 Rheology and Sensory Analysis <i>Filip Van Bockstaele -- Department of Food Technology, Safety and Health</i>	4		3	A:2	120

### 2.4 Biotechnology

51 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700228 Analysis and Separation of Biomolecules <i>Jessika De Clippeleer -- Department of Biotechnology</i>	6		2	A:1	180
2	I700229 Supplementary Biochemistry <i>David Laureys -- Department of Biotechnology</i>	5		2	A:2	150
3	I700231 Balances of Biochemical and Chemical Processes <i>Leen De Gelder -- Department of Biotechnology</i>	4		2	A:2	120
4	I700230 Biotechnological Project <i>David Laureys -- Department of Biotechnology</i>	6		2	A:J	180
5	I700233 Gene Technology [en] <i>Tina Kyndt -- Department of Biotechnology</i>	4		3	A:1	120
6	I700232 Enzyme Technology <i>Yves Briers -- Department of Biotechnology</i>	5		3	A:1	150
7	I700225 Instrumental Analytical Chemistry <i>Pieter Vermeir -- Department of Green Chemistry and Technology</i>	5		3	A:2	150
8	I700152 Process Technology II <i>Mia Eeckhout -- Department of Food Technology, Safety and Health</i>	4		3	A:2	120
9	I700234 Molecular Biotechnology <i>Yves Briers -- Department of Biotechnology</i>	4		3	A:2	120

10	I700154	Industrial Microbiology <i>Leen De Gelder -- Department of Biotechnology</i>	4	3	A:2	120
11	I700235	Bioinformatics <i>Kris Audenaert -- Department of Plants and Crops</i>	4	3	A:2	120

#### 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 2024-2025	f: annually, from 2025-2026	i: annually, from 2026-2027
b: tri-annually	d: bi-annually, from 2024-2025	g: bi-annually, from 2025-2026	j: bi-annually, from 2026-2027
	e: tri-annually, from 2024-2025	h: tri-annually, from 2025-2026	k: tri-annually, from 2026-2027