

Faculty of Bioscience Engineering

Bachelor of Science in Bioscience Engineering Technology

Language of instruction: Dutch

Programme version 12

## 1 General Courses 126 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	I700306 <b>Programming</b> <i>Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling</i>	4		1	A:1	120
3	I700286 <b>Mechanics</b> <i>Dirk Poelman -- Department of Solid State Sciences</i>	5		1	A:1	150
4	I700287 <b>General Chemistry I</b> <i>Pieter Vermeir -- Department of Green Chemistry and Technology</i>	5		1	A:1	150
5	I700200 <b>Zoology: Morphology and Systematics</b> <i>Thomas Van Hecke -- 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	I700204 <b>Thermodynamics</b> <i>Frederik Ronsse -- Department of Green Chemistry and Technology</i>	4		1	A:2	120
9	I700205 <b>General Chemistry II</b> <i>Pieter Vermeir -- Department of Green Chemistry and Technology</i>	4		1	A:2	120
10	I700206 <b>Organic Chemistry</b> <i>Sven Mangelinckx -- Department of Green Chemistry and Technology</i>	5		1	A:2	150
11	I700207 <b>Biochemistry</b> <i>Jessika De Clippeleer -- Department of Biotechnology</i>	5		1	A:2	150
12	I700190 <b>Cell Biology</b> <i>Kris Audenaert -- Department of Plants and Crops</i>	4		1	A:2	120
13	I700288 <b>Engineering Project</b> <i>Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling</i>	5		1	A:J	150
14	I700307 <b>Modelling and Simulation with 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 Jacxsens -- 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	I700273	Bachelor Project <i>Mia Eeckhout -- Department of Food Technology, Safety and Health</i>	7		3	A:J	210

## 2 Elective Courses

Subscribe to 1 module from the following list.

### 2.1 Biotechnology

54 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700228 Analysis and Separation of Biomolecules <i>Yves Briers -- Department of Biotechnology</i>	6		2	A:1	180
2	I700229 Supplementary Biochemistry <i>Kathy Messens -- 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>Marjan De Mey -- 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	I700040 Human Nutrition <i>Kathy Messens -- Department of Biotechnology</i>	3		3	A:2	90
9	I700152 Process Technology II <i>Mia Eeckhout -- Department of Food Technology, Safety and Health</i>	4		3	A:2	120
10	I700234 Molecular Biotechnology <i>Yves Briers -- Department of Biotechnology</i>	4		3	A:2	120
11	I700154 Industrial Microbiology <i>Leen De Gelder -- Department of Biotechnology</i>	4		3	A:2	120
12	I700235 Bioinformatics <i>Noémie De Zutter -- Department of Plants and Crops</i>	4		3	A:2	120

### 2.2 Agriculture

54 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700212 Plant Physiology <i>Kris Audenaert -- Department of Plants and Crops</i>	5		2	A:1	150
2	I700213 Animal Physiology <i>Thomas Van Hecke -- 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>Steven Maenhout -- Department of Plants and Crops</i>	4		2	A:2	120
5	I700042 Reproductive Physiology of Animals <i>Thomas Van Hecke -- 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	I700285	Animal Production Systems <i>Jeroen Degroote -- Department of Animal Sciences and Aquatic Ecology</i>	5	3	A:1	150
8	I700179	Sustainable Production Systems <i>Frank Nevens -- Department of Plants and Crops</i>	3	3	A:2	75
9	I700174	Applied Plant Breeding <i>Steven Maenhout -- Department of Plants and Crops</i>	3	3	A:2	90
10	I700279	Identification and Diagnosis of Plant Diseases, Pests and Weeds <i>Kris Audenaert -- 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	I700289	Agricultural Machinery <i>Bart Sonck -- Department of Animal Sciences and Aquatic Ecology</i>	4	3	A:2	120
13	I700290	Livestock Housing <i>Bart Sonck -- Department of Animal Sciences and Aquatic Ecology</i>	4	3	A:2	120

## 2.3 Horticulture

54 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700212 Plant Physiology <i>Kris Audenaert -- Department of Plants and Crops</i>	5		2	A:1	150
2	I700213 Animal Physiology <i>Thomas Van Hecke -- Department of Animal Sciences and Aquatic Ecology</i>	5		2	B: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>Steven Maenhout -- 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>	3		3	B:1	90
7	I700294 Regulation of Plant Growth and Development <i>Emmy Dhooghe -- Department of Plants and Crops</i>	4		3	A:1	120
8	I700179 Sustainable Production Systems <i>Frank Nevens -- Department of Plants and Crops</i>	3		3	A:2	75
9	I700174 Applied Plant Breeding <i>Steven Maenhout -- Department of Plants and Crops</i>	3		3	A:2	90
10	I700279 Identification and Diagnosis of Plant Diseases, Pests and Weeds <i>Kris Audenaert -- 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	I700291 Management of Urban Green Spaces <i>Jan Mertens -- Department of Environment</i>	3		3	A:2	90
13	I700293 Plant Propagation <i>Stefaan Werbrouck -- Department of Plants and Crops</i>	4		3	A:2	120
14	I700292 GIS <i>Frieke Vancoillie -- Department of Environment</i>	3		3	A:2	90

## 2.4 Food Industry

54 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	I700212 Plant Physiology <i>Kris Audenaert -- Department of Plants and Crops</i>	5		2	A:1	150
2	I700213 Animal Physiology <i>Thomas Van Hecke -- 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	I700040	Human Nutrition <i>Kathy Messens -- Department of Biotechnology</i>	3	3	A:2	90
9	I700152	Process Technology II <i>Mia Eeckhout -- Department of Food Technology, Safety and Health</i>	4	3	A:2	120
10	I700274	Technology and Functionality of Food Components <i>Filip Van Bockstaele -- Department of Food Technology, Safety and Health</i>	4	3	A:2	120
11	I700226	Food Preservation Technology <i>Imca Sampers -- Department of Food Technology, Safety and Health</i>	4	3	A:2	120
12	I700227	Rheology and Sensory Analysis <i>Filip Van Bockstaele -- Department of Food Technology, Safety and Health</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 2027-2028	f: annually, from 2028-2029	i: annually, from 2029-2030
b: tri-annually	d: bi-annually, from 2027-2028	g: bi-annually, from 2028-2029	j: bi-annually, from 2029-2030
	e: tri-annually, from 2027-2028	h: tri-annually, from 2028-2029	k: tri-annually, from 2029-2030