Study Programme

Academic year 2022-2023

Faculty of Bioscience Engineering

Bachelor of Science in Bioscience Engineering Technology

Language of instruction: Dutch

Programme version 9

1 General Courses — 129 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I700266	Calculus I	6		1	A:1	180
		Jan Baetens -- Department of Data Analysis and Mathematical Modelling					
2	I700197	Programming I	4		1	A:1	120
		Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling					
3	I700198	Mechanics, Oscillations and Waves	6		1	A:1	180
		Dirk Poelman -- Department of Solid State Sciences					
4	I700199	General Chemistry I	6		1	A:1	180
		Pieter Vermeir -- Department of Green Chemistry and Technology					
5	I700200	Zoology: Morphology and Systematics	4		1	A:1	120
		Joris Michiels -- Department of Animal Sciences and Aquatic Ecology					
6	I700201	Botany: Morphology and Diversity	4		1	A:1	120
		Pieter De Frenne -- Department of Environment					
7	I700267	Linear Algebra and Calculus II	5		1	A:2	150
		Jan Baetens -- Department of Data Analysis and Mathematical Modelling					
8	I700203	Programming II	3		1	A:2	90
		Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling					
9	I700204	Thermodynamics	4		1	A:2	120
		Frederik Ronsse -- Department of Green Chemistry and Technology					
10	I700205	General Chemistry II	4		1	A:2	120
		Pieter Vermeir -- Department of Green Chemistry and Technology					
11	I700206	Organic Chemistry	5		1	A:2	150
		Sven Mangelinckx -- Department of Green Chemistry and Technology					
12	I700207	Biochemistry	5		1	A:2	150
		Jessika De Clippeleer -- Department of Biotechnology					
13	I700190	Cell Biology	4		1	A:2	120
		Kris Audenaert -- Department of Plants and Crops					
14	I700208	Differential Equations	4		2	A:1	120
		Bernard De Baets -- Department of Data Analysis and Mathematical Modelling					
15	I700269	Applied Fluid Mechanics	5		2	A:1	150
		Niko Verhoest -- Department of Environment					
16	I700209	Electricity and Magnetism	4		2	A:1	120
		Toon Verstraelen -- Department of Physics and Astronomy					
17	I700216	Analytical Chemistry	6		2	A:1	180
		Pieter Vermeir -- Department of Green Chemistry and Technology					
18	I700214	Probability Theory and Statistics	4		2	A:2	120
		Bernard De Baets -- Department of Data Analysis and Mathematical Modelling					
19	I700268	Optics and Sensors	3		2	A:2	90
		Philippe Smet -- Department of Solid State Sciences					
20	I700211	Genetics	5		2	A:2	150
		Kris Audenaert -- Department of Plants and Crops					
21	I700217	Microbiology	5		2	A:2	150
		Leen De Gelder -- Department of Biotechnology					

Nr	Course		CRDT	Ref	MT1	Session	Study
22	I700218	Ecology Kim Calders -- Department of Environment	3	2	A:2		90
23	I700219	Process Technology I Mia Eeckhout -- Department of Food Technology, Safety and Health	5	3	A:1		150
24	I700224	Quality Management Systems in the Food Chain Liesbeth Jacxsens -- Department of Food Technology, Safety and Health	3	3	A:1		90
25	I700220	Environmental Sciences Leen De Gelder -- Department of Biotechnology	4	3	A:1		120
26	I700221	Entrepreneurship and Business Administration Joachim Schouteten -- Department of Agricultural Economics	6	3	A:1		180
27	I700223	Statistical Data Analysis Stijn Luca -- Department of Data Analysis and Mathematical Modelling	4	3	A:2		120
28	I700040	Human Nutrition Kathy Messens -- Department of Biotechnology	3	3	A:2		90
29	I700151	Bachelor Project Ingrid De Leyn -- Department of Food Technology, Safety and Health	5	3	A:J		150

2 Elective Courses

Subscribe to 1 from the following list.

2.1   51 credits

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

2.2   51 credits

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

Nr	Course		CRDT	Ref	MT1	Session	Study
7	I700035	Plant Tissue Culture Stefaan Werbrouck -- Department of Plants and Crops	4	3		A:1	120
8	I700237	Pomology Filip Debersaques -- Department of Plants and Crops	5	3		A:1	150
9	I700174	Applied Plant Breeding Geert Haesaert -- Department of Plants and Crops	3	3		A:2	90
10	I700020	Crop Protection Geert Haesaert -- Department of Plants and Crops	6	3		A:2	180
11	I700034	Plant Nutrition and Soil Management Stefaan De Neve -- Department of Environment	4	3		A:2	120
12	I700239	Glasshouse Vegetable Production Emmy Dhooghe -- Department of Plants and Crops	4	3		A:2	120

2.3   51 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I700212	Plant Physiology Geert Haesaert -- Department of Plants and Crops	5	2		A:1	150
2	I700213	Animal Physiology Dirk Fremaut -- Department of Animal Sciences and Aquatic Ecology	5	2		A:1	150
3	I700027	Food Chemistry Mia Eeckhout -- Department of Food Technology, Safety and Health	8	2		A:2	240
4	I700270	Processing Technology of Potatoes, Vegetables, and Fruit Imca Sampers -- Department of Food Technology, Safety and Health	3	2		A:2	90
5	I700157	Molecular Analysis Techniques Kathy Messens -- Department of Biotechnology	4	3		A:1	120
6	I700222	Food Microbiology Frank Devlieghere -- Department of Food Technology, Safety and Health	5	3		A:1	150
7	I700225	Instrumental Analytical Chemistry Pieter Vermeir -- Department of Green Chemistry and Technology	5	3		A:2	150
8	I700152	Process Technology II Mia Eeckhout -- Department of Food Technology, Safety and Health	4	3		A:2	120
9	I700271	Technology and Functionality of Food Ingredients Filip Van Bockstaele -- Department of Food Technology, Safety and Health	4	3		A:2	120
10	I700226	Food Preservation Technology Tony Ruyssen -- Department of Food Technology, Safety and Health	4	3		A:2	120
11	I700227	Rheology and Sensory Analysis Filip Van Bockstaele -- Department of Food Technology, Safety and Health	4	3		A:2	120

2.4   51 credits

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

10	I700154	Industrial Microbiology	4	3	A:2	120

Inge Van Bogaert -- Department of Biotechnology

11	I700235	Bioinformatics	4	3	A:2	120

Willem Desmedt -- Department of Plants and Crops

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 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