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

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

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

2.2 — 51 credits

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

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

2.3   51 credits

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

2.4   51 credits

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

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