

Study Programme

Academic year 2024-2025

Faculty of Bioscience Engineering
Bachelor of Science in Bioscience Engineering

Language of instruction: Dutch

Programme version 1

1	General	Courses			150	credits
Nr 1	Course 1002907	Analysis: Functions of One Variable Jan Baetens Department of Data Analysis and Mathematical Modelling	CRDT 5	Ref MT1	Session A:1	Study 150
2	1002417	Mechanics, Vibrations and Waves Dirk Poelman Department of Solid State Sciences	5	1	A:1	150
3	1002418	General and Inorganic Chemistry: Structure Rik Van Deun Department of Chemistry	5	1	A:1	150
4	1002419	Cellular and Molecular Biology Tina Kyndt Department of Biotechnology	4	1	A:1	120
5	1002420	Applied Botany: Morphology and Diversity Pieter De Frenne Department of Environment	5	1	A:1	150
6	1002908	Scientific Computing Jan Verwaeren Department of Data Analysis and Mathematical Modelling	4	1	A:1	120
7	1002909	Linear Algebra Willem Waegeman Department of Data Analysis and Mathematical Modelling	4	1	A:2	120
8	1002910	Analysis: Functions of Several Variables Jan Baetens Department of Data Analysis and Mathematical Modelling	4	1	A:2	120
9	1002423	Thermodynamic Processes Frederik Ronsse Department of Green Chemistry and Technology	5	1	A:2	150
10	1002424	General and Inorganic Chemistry: Reactivity and Analysis Rik Van Deun Department of Chemistry	6	1	A:2	180
11	1002425	Applied Zoology: Invertebrates Luc Tirry Department of Plants and Crops	5	1	A:2	150
12	1002911	Earth Sciences David Van Rooij Department of Geology	4	1	A:2	120
13	1002427	Ecology Kathy Steppe Department of Plants and Crops	4	1	A:2	120
14	1002428	Differential Equations Michiel Stock Department of Data Analysis and Mathematical Modelling	5	2	A:1	150
15	1002429	Electricity, Magnetism and Sensors Toon Verstraelen Department of Physics and Astronomy	5	2	A:1	150
16	1002430	Applied Zoology: Vertebrates Luc Tirry Department of Plants and Crops	4	2	A:1	120
17	1002431	Applied Botany: Physiology Kathy Steppe Department of Plants and Crops	5	2	A:1	150
18	1002432	Organic Chemistry: Structure Matthias D'hooghe Department of Green Chemistry and Technology	3	2	A:1	90
19	1002433	Biochemistry Els Van Damme Department of Biotechnology	4	2	A:1	120
20	1002912	Sustainable Development in Production and Consumption Systems Joost Dessein Department of Agricultural Economics	4	2	A:2	120
21	1002435	Probabilistic Models Bernard De Baets Department of Data Analysis and Mathematical Modelling	5	2	A:2	150
)9	-05-2025	23·42				n '

09-05-2025 23:42 p 1

22 1002		Ogy Department of Biotechnology	5	2	A:2	150
23 1002	0	Chemistry: Reactivity oghe Department of Green Chemistry and Technology	7	2	A:2	210
24 1002		chanics Department of Environment	4	2	A:2	120
25 1002		ental Sciences nedt Department of Environment	4	2	A:1	120
26 1002		PINCE n Department of Data Analysis and Mathematical Modelling	5	2	A:2	150
27 1002		Data Processing epartment of Data Analysis and Mathematical Modelling	4	3	A:1	120
28 1002		Engineering [en] Department of Green Chemistry and Technology	4	3	A:2	120
29 1002		Mass Transport Department of Plants and Crops	4	3	A:1	120
30 1002		Analytical Techniques stere Department of Green Chemistry and Technology	4	3	A:2	120
31 1002	9	and Simulation of Biosystems Department of Data Analysis and Mathematical Modelling	4	3	A:2	120
32 1002		CS Department of Agricultural Economics	4	3	A:1	120
33 1002		Thesis Department of Environment	6	3	A:J	180
2 Maj	iors				30 (credits
		no following list				
	ne to 1 maior trom ti	ne following list				
	oe to 1 major from tl lajor Forest an	•			30	credits
2.1 Ma	lajor Forest an	d Nature Management	CRDT Re	ef MT1		
2.1 Ma	lajor Forest an urse 2455 Soil Prope	•	CRDT Re 5	of MT1	Session A:1	Study 150
2.1 Ma Nr Cou 1 1002	lajor Forest an urse 2455 Soil Prope Stefaan De Ne 2450 Remote S	erties and Soil Processes	31.5		Session	Study
2.1 Ma Nr Cou 1 1002 2 1002	lajor Forest an urse 2455 Soil Propo Stefaan De Ne 2450 Remote S Frieke Vancoil	erties and Soil Processes eve Department of Environment Sensing lie Department of Environment	5	3	Session A:1	Study 150
2.1 Ma Nr Cou 1 1002 2 1002 3 1002	lajor Forest an urse 2455 Soil Prope Stefaan De Ne 2450 Remote S Frieke Vancoil 2457 Vegetatio Lander Baeter 2458 Basics of	erties and Soil Processes eve Department of Environment Sensing lie Department of Environment on Science	5 5	3	Session A:1 A:1	Study 150 150
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002	lajor Forest and lajor	erties and Soil Processes ve Department of Environment Sensing lie Department of Environment n Science n Department of Environment Forest and Wood Science	5 5 3	3 3 3	Session A:1 A:1 A:1	150 150 90
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002	lajor Forest and Jurse 2455 Soil Proper Stefaan De Ne 2450 Remote S Frieke Vancoil 2457 Vegetatio Lander Baeter 2458 Basics of Kris Verheyen 2751 Principles Niko Verhoest 2414 Geograph	erties and Soil Processes ve Department of Environment Sensing lie Department of Environment In Science In Department of Environment Forest and Wood Science Department of Environment Is of Quantitative Water Management	5 5 3 6 3	3 3 3	Session A:1 A:1 A:1 A:1	150 150 90 180
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002 6 1002	lajor Forest and Jurse 2455 Soil Proper Stefaan De Net 2450 Remote Stefaan De Net 2457 Vegetation Lander Baeter 2458 Basics of Kris Verheyen 2751 Principles Niko Verhoest 2414 Geograph Frieke Vancoil 2461 Integrated	erties and Soil Processes eve Department of Environment Sensing lie Department of Environment In Science In Department of Environment Forest and Wood Science In Department of Environment In Grant and Wood Science In Department of Environment In Grant and Wood Science In Department of Environment In Grant and Wood Science In Department of Environment In Grant and Management In Grant and Management In Department of Environment In Conformation Systems: Basics and Application	5 5 3 6 3	3 3 3 3	Session A:1 A:1 A:1 A:1 A:J A:2	Study 150 150 90 180 90
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002 6 1002 7 1002	lajor Forest an urse 2455 Soil Proposteran De Ne 2450 Remote S Frieke Vancoil 2457 Vegetatio Lander Baeter 2458 Basics of Kris Verheyen 2751 Principles Niko Verhoest 2414 Geograph Frieke Vancoil 2461 Integrated Kris Verheyen	erties and Soil Processes ve Department of Environment Sensing lie Department of Environment n Science n Department of Environment Forest and Wood Science Department of Environment s of Quantitative Water Management Department of Environment nic Information Systems: Basics and Applicative Department of Environment d Practicum Forest and Nature	5 5 3 6 3 attions 5	3 3 3 3	Session A:1 A:1 A:1 A:1 A:2 A:2 A:2	Study 150 150 90 180 90 150
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002 6 1002 7 1002	lajor Forest and urse 2455 Soil Proper Stefaan De Ne 2450 Remote Stefaan De Ne 2450 Vegetation Lander Baeter 2458 Basics of Kris Verheyen 2751 Principles Niko Verhoest 2414 Geograph Frieke Vancoil 2461 Integrated Kris Verheyen lajor Cell and O	erties and Soil Processes eve Department of Environment Gensing lie Department of Environment n Science n Department of Environment Forest and Wood Science Department of Environment of Quantitative Water Management Department of Environment nic Information Systems: Basics and Applicative Department of Environment d Practicum Forest and Nature Department of Environment	5 5 3 6 3 attions 5	3 3 3 3 3 3	Session A:1 A:1 A:1 A:1 A:2 A:2 A:2	Study 150 150 90 180 90 150 90
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002 7 1002 2.2 Ma Nr Cou	lajor Forest and stress and stres	erties and Soil Processes eve Department of Environment Gensing lie Department of Environment n Science n Department of Environment Forest and Wood Science Department of Environment of Quantitative Water Management Department of Environment nic Information Systems: Basics and Applicative Department of Environment d Practicum Forest and Nature Department of Environment	5 5 3 6 3 attions 5	3 3 3 3 3	Session A:1 A:1 A:1 A:1 A:2 A:2 A:2 A:2	Study 150 150 90 180 90 150 90 credits
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002 6 1002 7 1002 2.2 Ma Nr Cou 1 1002	lajor Forest and Jurse 2455 Soil Proper Stefaan De Net 2450 Remote Stefaan De Net 2457 Vegetation Lander Baeter 2458 Basics of Kris Verheyen 2751 Principles Niko Verhoest 2414 Geograph Frieke Vancoil 2461 Integrated Kris Verheyen 2511 Biocatalys Tom Desmet 2521 Cell Biolo	erties and Soil Processes eve Department of Environment Sensing lie Department of Environment In Science In Department of Environment Forest and Wood Science In Department of Environment Forest and Wood Science In Compartment of Environment In Guantitative Water Management In Guantitative Water Management In Department of Environment In Information Systems: Basics and Applicative Department of Environment In Practicum Forest and Nature In Practicum Forest and Nature In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Practicum Fores	5 5 5 3 6 3 stions 5 3 CRDT Re	3 3 3 3 3 3	Session A:1 A:1 A:1 A:1 A:2 A:2 A:2 Session	Study 150 150 90 180 90 150 90 credits Study
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002 6 1002 7 1002 2.2 Ma Nr Cou 1 1002 2 1002	lajor Forest and stefan De Ne Stefan De Ne 2450 Remote Stefan De Ne 2450 Remote Stefan De Ne 2450 Vegetatio Lander Baeter 2458 Basics of Kris Verheyen 2751 Principles Niko Verhoest 2414 Geograph Frieke Vancoil 2461 Integrated Kris Verheyen 25511 Biocatalys Tom Desmet - 25521 Cell Biolo Laurens Pauw 25522 Gene Ted	erties and Soil Processes eve Department of Environment Sensing lie Department of Environment In Science In Department of Environment Forest and Wood Science In Department of Environment In Grantitative Water Management In Grantitative Water Management In Grantitative Water Management In Grantitative Water Management In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Department of Environment In Practicum Forest and Nature In Practic	5 5 3 6 3 attions 5	3 3 3 3 3 3 3 3 3	Session A:1 A:1 A:1 A:1 A:2 A:2 A:2 A:2 A:1	Study 150 150 90 180 90 150 90 credits Study 150
2.1 Ma Nr Cou 1 1002 2 1002 3 1002 4 1002 5 1002 7 1002 7 1002 2 1002 2 1002 3 1002	lajor Forest and Urse 2455 Soil Proposteran De Ne 2450 Remote Serieke Vancoil 2457 Vegetation Lander Baeter 2458 Basics of Kris Verheyen 2751 Principles Niko Verhoest 2414 Geograph Frieke Vancoil 2461 Integrated Kris Verheyen 2461 Integrated Kris Verheyen 2511 Biocatalys Tom Desmet - 2521 Cell Biolon Laurens Pauw 2522 Gene Tectrina Kyndt 1	erties and Soil Processes eve Department of Environment Sensing lie Department of Environment In Science In Department of Environment Forest and Wood Science In Department of Environment In of Quantitative Water Management In of Quantitative Water Management In of Pepartment of Environment In of Pepartment of Environment In of Pepartment of Environment In Operation Systems: Basics and Applicative Department of Environment In Operation Procest and Nature In Operation Forest an	5 5 3 6 3 stions 5 CRDT Re 5	3 3 3 3 3 3 3 3 3 3 3 3 3	Session A:1 A:1 A:1 A:1 A:2 A:2 A:2 A:2 A:1 A:1 A:1 A:1	150 150 90 180 90 150 90 credits Study 150 150

09-05-2025 23:42 p 2

5

1002518 Applied Genetics

[en]

1002523

Thomas Van Leeuwen -- Department of Plants and Crops

Molecular Biology of Plant, Animal and Human Associated Bacteria

A:2

A:2

3

3

150

150

2.3 Major Chemistry and Food Technology

30 credits

Vr Course 1 1002509					
1 1002509		CRDT Re	ef MT1	Session	Study
	Food Microbiology and Food Preservation Frank Devlieghere Department of Food Technology, Safety and Health	5	3	A:1	150
2 1002511	Biocatalysis and Enzyme Technology Tom Desmet Department of Biotechnology	5	3	A:1	150
3 1002512	Chemistry and Technology of Polymers Christian Stevens Department of Green Chemistry and Technology	5	3	A:1	150
1 1002513	Food Chemistry Bruno De Meulenaer Department of Food Technology, Safety and Health	5	3	A:2	150
5 1002510	Reaction Kinetics and Reactor Design Paul Van der Meeren Department of Green Chemistry and Technology	5	3	A:2	150
6 1002508	Environmental Technology: Water [en] Jo De Vrieze Department of Biotechnology	5	3	B:2	150
2.4 Majoı	· Agricultural Sciences			30	credits
Vr Course		CRDT Re	ef MT1	Session	Study
1 1002455	Soil Properties and Soil Processes Stefaan De Neve Department of Environment	5	3	A:1	150
2 1002515	Crop Husbandry Steven Maenhout Department of Plants and Crops	5	3	A:1	150
3 1002516	Crop Protection Patrick De Clercq Department of Plants and Crops	5	3	A:1	150
1 1002519	Farm Management Joachim Schouteten Department of Agricultural Economics	5	3	A:2	150
5 1002517	Animal Production Systems Stefaan De Smet Department of Animal Sciences and Aquatic Ecology	5	3	A:2	150
6 1002518	Applied Genetics Thomas Van Leeuwen Department of Plants and Crops	5	3	A:2	150
2.5 Majo	Land, Water and Climate			30	credits
Vr Course		CRDT Re	ef MT1	Session	Study
1 1002448	Soil Science Stefaan De Neve Department of Environment	5	3	A:1	150
2 1002449					
	Niko Verhoest Department of Environment	3	3	A:1	90
3 1002450	·	3 5	3	A:1 A:1	
3 1002450 4 1002451	Remote Sensing	· ·	· ·		90
	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment	5	3	A:1	90 150
4 l002451	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment Geographic Information Systems: Basics Frieke Vancoillie Department of Environment	5 4	3	A:1 A:1	90 150 120
4 1002451 5 1002452	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment Geographic Information Systems: Basics Frieke Vancoillie Department of Environment Biogeochemical Cycles Steven Sleutel Department of Environment	5 4 3	3 3 3	A:1 A:1 A:2	90 150 120 90
4 1002451 5 1002452 6 1002453 7 1002454	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment Geographic Information Systems: Basics Frieke Vancoillie Department of Environment Biogeochemical Cycles Steven Sleutel Department of Environment Geostatistics [en]	5 4 3 5	3 3 3	A:1 A:1 A:2 A:2 A:2	90 150 120 90 150
4 1002451 5 1002452 6 1002453 7 1002454 2.6 Major	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment Geographic Information Systems: Basics Frieke Vancoillie Department of Environment Biogeochemical Cycles Steven Sleutel Department of Environment Geostatistics [en] Ellen Van De Vijver Department of Environment	5 4 3 5	3 3 3 3	A:1 A:1 A:2 A:2 A:2	90 150 120 90 150 150 credits
4 1002451 5 1002452 6 1002453 7 1002454	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment Geographic Information Systems: Basics Frieke Vancoillie Department of Environment Biogeochemical Cycles Steven Sleutel Department of Environment Geostatistics [en] Ellen Van De Vijver Department of Environment Environmental Technology	5 4 3 5 5	3 3 3 3	A:1 A:1 A:2 A:2 A:2	90 150 120 90 150
4 1002451 5 1002452 6 1002453 7 1002454 2.6 Major	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment Geographic Information Systems: Basics Frieke Vancoillie Department of Environment Biogeochemical Cycles Steven Sleutel Department of Environment Geostatistics [en] Ellen Van De Vijver Department of Environment Environmental Technology Environmental Chemistry Filip Tack Department of Green Chemistry and Technology	5 4 3 5 5	3 3 3 3 3	A:1 A:1 A:2 A:2 A:2 Session	90 150 120 90 150 150 credits
4 1002451 5 1002452 6 1002453 7 1002454 2.6 Major Nr Course 1 1002503	Remote Sensing Frieke Vancoillie Department of Environment Land—Atmosphere Interactions [en] Diego Miralles Department of Environment Geographic Information Systems: Basics Frieke Vancoillie Department of Environment Biogeochemical Cycles Steven Sleutel Department of Environment Geostatistics [en] Ellen Van De Vijver Department of Environment Environmental Technology Environmental Chemistry Filip Tack Department of Green Chemistry and Technology Applied Freshwater Ecology [en] Peter Goethals Department of Animal Sciences and Aquatic Ecology	5 4 3 5 5 CRDT Re 6	3 3 3 3 3	A:1 A:2 A:2 A:2 A:2 Session A:1	90 150 120 90 150 150 credits Study 180

09-05-2025 23:42 p 3

5	1002507	Environmental Technology: Solid Waste Streams Frederik Ronsse Department of Green Chemistry and Technology	4	3	A:2	120
6	1002508	Environmental Technology: Water [en] Jo De Vrieze Department of Biotechnology	6	3	A:2	180
7	E039060	Sustainable Energy and Rational Use of Energy [en] Jeroen Beeckman Department of Electronics and Information Systems	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 cours name, using the following ISO codes:

bg: Bulgarian de: German es: Spanish ja: Japanese pl: Polish sh: Kroatian/Serbian zh: Chinese pt: Portuguese cs: Czech el: Greek fr: French nl: Dutch sl: Slovene

it: Italian ru: Russian da: Danish en: English no: Norwegian 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:

c: annually, from 2025-2026 f: annually, from 2026-2027 i: annually, from 2027-2028 a: bi-annually g: bi-annually, from 2026-2027 j: bi-annually, from 2027-2028 b: tri-annually d: bi-annually, from 2025-2026 h: tri-annually, from 2026-2027 k: tri-annually, from 2027-2028 e: tri-annually, from 2025-2026

09-05-2025 23:42 p 4