Study Programme

Academic year 2024-2025

Faculty of Bioscience Engineering
Exchange Programme in Bioscience Engineering: Environmental Technology (master's level)

Language of instruction: English

Programme version 7

1 Elective Courses

Nr	Course		CRDT	Ref	MT1	Session	Study
1	I001571	Environmental Legislation Hendrik Schoukens -- Department of European, Public and International Law	3			A:1	75
2	I001280	Experimental Design Stijn Luca -- Department of Data Analysis and Mathematical Modelling	3			A:2	75
3	I002508	Environmental Technology: Water Jo De Vrieze -- Department of Biotechnology	6			A:2	180
4	I002750	Isotopes in Biosciences Pascal Boeckx -- Department of Green Chemistry and Technology	5			A:1	150
5	I002700	Clean Technology Sophie Huysveld -- Department of Green Chemistry and Technology	5			A:1	150
6	I002701	Clean Technology: Theory and Concepts Sophie Huysveld -- Department of Green Chemistry and Technology	3			A:1	90
7	I002598	Physico-Chemical Resource Recovery from Aqueous Waste Streams Marjolein Vanoppen -- Department of Green Chemistry and Technology	6			A:1	180
8	I002679	Green Chemistry of Renewable Resources Sven Mangelinckx -- Department of Green Chemistry and Technology	4			A:1	120
9	I002607	Resource Recovery Technology Ramon Ganigué -- Department of Biotechnology	6			A:2	180
10	I002454	Geostatistics Ellen Van De Vijver -- Department of Environment	5			A:2	150
11	I002599	Digitalisation for Resource Recovery	5				150
12	I002718	Economics and Management of Natural Resources Stijn Speelman -- Department of Agricultural Economics	4			A:2	120
13	I002698	Water Quality Management Peter Goethals -- Department of Animal Sciences and Aquatic Ecology	4			A:2	120
14	I002657	Soil Physics Wim Cornelis -- Department of Environment	5			A:1	150
15	I002708	Soil Water Management Wim Cornelis -- Department of Environment	5			A:2	150
16	I001967	Intellectual Property and Valorization Benedikt Sas -- Department of Food Technology, Safety and Health	3			A:2	90
17	I002606	Environmental Risk Assessment Karel De Schamphelaere -- Department of Animal Sciences and Aquatic Ecology	5			A:1	150
18	I002752	Advanced Wastewater Treatment Process Design Eveline Volcke -- Department of Green Chemistry and Technology	3			A:1	90
19	I002535	Applied Marine Ecology Colin Janssen -- Department of Animal Sciences and Aquatic Ecology	3			A:1	90
20	I002504	Applied Freshwater Ecology Peter Goethals -- Department of Animal Sciences and Aquatic Ecology	3			A:1	90
21	I002789	Microbial Ecology and Environmental Sanitation Tom Defoirdt -- Department of Biotechnology	4			A:1	120

#	Code	Title	Credits	Group	Hours
22	I002719	Modelling and Simulation with Partial Differential Equations in Practice	5		150
23	I001398	Instrumental Organic Analysis	3		75
24	I002609	Environmental Microbiology Nico Boon -- Department of Biotechnology	3	A:1	90
25	I002589	Environmental Technology: Soil and Sediment Filip Tack -- Department of Green Chemistry and Technology	3	A:2	90
26	I002591	Environmental Technology: Waste Frederik Ronsse -- Department of Green Chemistry and Technology	3	A:2	90
27	I002593	Introduction to Environmental Modelling and Simulation	3		90
28	I002586	Multidisciplinary Analysis of Climate Change Pascal Boeckx -- Department of Green Chemistry and Technology	3	A:2	90
29	I000928	Aquaculture Environmental Impact Jana Asselman -- Department of Animal Sciences and Aquatic Ecology	3	A:2	90
30	I002604	Oceans and Human Health Jana Asselman -- Department of Animal Sciences and Aquatic Ecology	3	A:1	90
31	I002590	Environmental Technology: Air Christophe Walgraeve -- Department of Green Chemistry and Technology	4	A:2	120
32	I002585	Sustainability and Environmental Economics	4		120
33	I002600	Non-technological Drivers and Challenges of Resource Recovery Stijn Speelman -- Department of Agricultural Economics	4	A:2	120
34	I002587	Environmental Chemistry and Analysis: Atmospheric Processes Christophe Walgraeve -- Department of Green Chemistry and Technology	5	A:1	150
35	I002588	Environmental Chemistry and Analysis: Water, Soil and Sediment Filip Tack -- Department of Green Chemistry and Technology	5	A:1	150
36	I002594	Environmental Research Skills and Experimental Design	5		150
37	I002595	Emerging Topics and Current Practice in Environmental Risk Assessment	6		180
38	I002597	Urban and Indoor Air Quality Christophe Walgraeve -- Department of Green Chemistry and Technology	6	A:1	180
39	I002658	Environmental Soil Sensing Philippe De Smedt -- Department of Environment	4	A:2	120
40	I002663	Water Governance Stijn Speelman -- Department of Agricultural Economics	4	A:2	120
41	I002596	Environmental Fate and Management of Pesticides	6		180
42	I002702	Clean Technology: Assessment Methods Sophie Huysveld -- Department of Green Chemistry and Technology	3	A:1	90
43	I002614	Microbiomics Nico Boon -- Department of Biotechnology	4	A:1	120
44	I002636	Spatio-temporal Models	5		150
45	I002749	Metals and Metalloids in Environment and Technology	6		180
46	I002772	Circular Cities Gijs Du Laing -- Department of Green Chemistry and Technology	3	A:J	90
47	I002771	Resource Recovery from Wastewater Gijs Du Laing -- Department of Green Chemistry and Technology	3	A:J	90
48	I002766	Introduction to the Circular Economy, Economics and Management of Natural Resources Stijn Speelman -- Department of Agricultural Economics	4	A:1	120
49	I002767	Resource Recovery and Recycling Technologies Tom Hennebel -- Department of Biotechnology	5	A:J	150
50	I002501	Soil Prospection	4		120
51	I002775	Pedology	5		150
52	I002882	Sustainable Management of Resources in the Circular Economy Gijs Du Laing -- Department of Green Chemistry and Technology	4	A:J	120
53	I002894	Research-2-Business: Environmental Engineering and Resource Recovery Marcella Fernandes De Souza -- Department of Green Chemistry and Technology	3	A:1	75
54	I002589	Environmental Technology: Soil and Sediment Filip Tack -- Department of Green Chemistry and Technology	5	B:1	150

55	I002893	Bioresource Recovery Engineering: Case Studies and Company Visits	5		A:1	150
		Erik Meers -- Department of Green Chemistry and Technology				
56	I002603	Blue Growth: An Interdisciplinary Approach to Research and Innovation in the Marine Environment	3			90
57	I002608	Decentralized Sanitation and Treatment Technologies for Developing Economies	6		A:1	180
		Korneel Rabaey -- Department of Biotechnology				
58	I002932	Machine Learning for Life Sciences	5		A:1	150
		Willem Waegeman -- Department of Data Analysis and Mathematical Modelling				

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