

Study programmes 2023-2024

Faculty of Sciences

Advanced Master in the Water-Energy-Food Nexus

Cycle view of the study programme

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Cycle view o	or the study programme		0.				-
Compulsory cour	rses (B1: 45Cr)						
Module 1: Inti	roduction and basic concepts						
Opening semin	ars of the water-energy-food Nexus ¿ Charles BIELDERS, Gilles COLINE	ЕТ, В	ernarc	l TYC	HON		
HULG0559-1	Challenges of sustainable development, transition and development of the EEA Nexus dimension - Challenges of sustainable development and transition -	B1	Q1 22,5	_	_		4
	Philippe BARET, Nathalie DELZENNE, Valérie SWAEN - Development of the EEA Nexus dimension - Charles BIELDERS, Gilles COLINET, Bernard TYCHON		6	3	-		
Module 2: The	e 3 components of the NEXUS EEA						
Water security	component						
ENVT3040-2	Integrated and participative management of water resources - Johan Derouane, Joost Wellens	B1	Q1	32	16	-	4
Energy securit	ty component						
ENVT0892-1	Integrated energy management, particularly in the construction industry - Philippe Andre, Maxime Habran	B1	Q1	32	16	-	4
Food security	component						
ENVT0073-1	Agricultural production systems and food security - Antoine DENIS, Pierre OZER, Bernard TYCHON	B1	Q1	20	20	-	4
Module 3: Into	erconnections of the 3 components of the EEA Nexus and case studies						
ENVT0074-1	Nexus Water-Energy-Food seminars: case studies of interconnections - Charles BIELDERS, Gilles COLINET, Antoine DENIS, Bernard TYCHON - [38h SEM, 10h Vis.]	B1	TA	-	-	[+]	4
HULG0560-1	Natural resources: appropriation and resistance - An Ansoms	B1	Q2	30	-	-	3
HULG0561-1	Water-Food Nexus: modelling and analysis tools - Mathieu JAVAUX, Marnik VANCLOOSTER	B1	Q2	22,5	22,5	-	4
Module 4: Tec	hnical tools						
ENVT2027-4	Application of teledetection and geographical information systems for environmental management - Antoine DENIS, Bernard TYCHON	B1	Q1	12	24	-	3
Module 5: Per	sonal work in the form of an internship						
STFE0035-1	Personal work in the form of an internship - Collégialité - [1,5mois Internship]	B1	Q2	-	-	[+]	15

Optional courses (B1:15Cr)

Module 2: The 3 components of the NEXUS EEA

In agreement with the Jury, choose courses for a total of 8 credits, including a maximum of 1 course among the 3 courses ENVT3035-2, ENVT0068-2, GEST3019-2 (Note: for an annual programme of more than 60 credits, contact the Beadle's office): (B1:8Cr)

Water	security	component

HULG0562-1	Irrigation and drainage - Mathieu JAVAUX	B1	Q2	22,5	22,5	-	4
ENVT3035-2	Wastewater treatment, production of drinking water and recovery of wastewater for irrigation - Hugues Jupsin - [6h FT]	B1	Q1	24	12	[+]	4
Energy security component							
ELEC0080-1	Energy networks	B1	Q1				4



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	- Part 1: Electrical energy systems - Damien ERNST - Part 2: Heat networks - Pierre DEWALLEF - [1d FW]		24 6	12 6	- [+]		
ENVT0068-2	Exploitation of renewable energy - Philippe ANDRE, Manfred GREGER, Vincent HANUS	B1	Q1	32	16	-	4
Food security	component						
HULG0487-1	Soil management and development in warm region - Charles BIELDERS, Bruno DELVAUX	B1	Q2	22	8	-	3
GEST3019-2	Food policies and strategies (english language) - Hossein AZADI - [3h FT]	B1	Q1	9	15	[+]	3
Module 3: Interconnections of the 3 components of the EEA Nexus and case studies							
In agreement with the Jury, choose courses for a total of 5 credits from: (Note: for an annual programme of more than 60 credits, contact the Beadle's office): (B1:5Cr)							
GEOG0073-1	Town and country planning, food and energy security - Serge SCHMITZ	B1	Q2	24	-	-	3
HULG0490-1	Evaluation of the environmental impact: diagnosis and indicators - Charles BIELDERS, Pierre DEFOURNY	B1	Q2	22,5	-	-	3
ENVT0075-1	Waste: water, energy and food resources - Luc Minne - [3h Vis.]	B1	Q2	21	-	[+]	3
ECON0945-1	Economy, energy and environment - Nadia DE ZOTTI, HenryJean GATHON, Axel GAUTIER	B1	Q1	24	5	-	2
Module 4: Technical tools							
With the agreement of the Jury, choose 1 course from: (B1:2Cr)							
HULG0563-1	Evaluation of the environmental impact: project and introduction to managing databases, part F: Managing databases - Guillaume LOBET	B1	Q2	12	12	-	2
ENVT0736-4	Development projects management and communication, Part 1: Development projects management - N, Bernard Tychon	B1	Q1	12	12	-	2
GEST7085-1	Leadership best practices (english language) - Michael GHILISSEN	B1	Q2	-	16	-	2