

#### Cycle view of the study programme

B1 Or Th Pr Au Cr

#### Compulsory courses (B1 : 45Cr)

##### Module 1: Introduction and basic concepts

Opening seminars of the water-energy-food Nexus ; Charles BIELDERS, Gilles COLINET, Bernard TYCHON

HULG0559-1	<i>Challenges of sustainable development, transition and development of the EEA Nexus dimension</i>	B1	Q1						4
	- <i>Challenges of sustainable development and transition</i> - Valentin COUVREUR, Nathalie DELZENNE, Valérie SWAEN			22,5	-	-			
	- <i>Development of the EEA Nexus dimension</i> - Charles BIELDERS, Gilles COLINET, Bernard TYCHON			6	3	-			

##### Module 2: The 3 components of the NEXUS EEA

###### Water security component

ENVT3040-2	<i>Integrated and participative management of water resources</i> - Johan DEROUANE, Joost WELLENS	B1	Q1	32	16	-			4
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###### Energy security component

ENVT0892-1	<i>Integrated energy management, particularly in the construction industry</i> - Philippe ANDRE, Maxime HABRAN	B1	Q1	32	16	-			4
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###### Food security component

ENVT0073-1	<i>Agricultural production systems and food security</i> - Antoine DENIS, Pierre OZER, Bernard TYCHON	B1	Q1	20	20	-			4
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##### Module 3: Interconnections of the 3 components of the EEA Nexus and case studies

ENVT0074-1	<i>Nexus Water-Energy-Food seminars: case studies of interconnections</i> - Charles BIELDERS, Gilles COLINET, Antoine DENIS, Bernard TYCHON - [38h SEM, 10h Vis.]	B1	TA	-	-		[+]		4
HULG0560-1	<i>Natural resources: appropriation and resistance</i> - An ANSOMS	B1	Q2	30	-	-			3
HULG0561-1	<i>Water-Food Nexus: modelling and analysis tools</i> - Mathieu JAVAUX, Marnik VANCLOOSTER	B1	Q2	22,5	22,5	-			4

##### Module 4: Technical tools

ENVT2027-4	<i>Application of teledetection and geographical information systems for environmental management</i> - Antoine DENIS, Bernard TYCHON	B1	Q1	12	24	-			3
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##### Module 5: Personal work in the form of an internship

STFE0035-1	<i>Personal work in the form of an internship</i> - COLLÉGIALITÉ - [1,5mois Internship]	B1	Q2	-	-		[+]		15
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#### 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	<i>Irrigation and drainage</i> - Mathieu JAVAUX	B1	Q2	22,5	22,5	-			4
ENVT3035-2	<i>Wastewater treatment, production of drinking water and recovery of wastewater for irrigation</i> - Hugues JUPSIN - [6h FT]	B1	Q1	24	12		[+]		4

###### Energy security component

ELEC0080-1	<i>Energy networks</i>	B1	Q1						4
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	- Part 1: <i>Electrical energy systems</i> - Damien ERNST	24	12	-		
	- Part 2: <i>Heat networks</i> - Pierre DEWALLEF - [1d FW]	6	6	[+]		
ENVT0068-2	<i>Exploitation of renewable energy</i> - Philippe ANDRE, Manfred GREGER, Vincent HANUS	B1	Q1	32	16	- 4

#### Food security component

HULG0487-1	<i>Soil management and development in warm region</i> - Charles BIELDERS, Bruno DELVAUX	B1	Q2	22	8	- 3
GEST3019-2	<i>Food policies and strategies</i> (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	<i>Town and country planning, food and energy security</i> - Serge SCHMITZ	B1	Q2	24	-	- 3
HULG0490-1	<i>Evaluation of the environmental impact: diagnosis and indicators</i> - Charles BIELDERS, Pierre DEFOURNY	B1	Q2	22,5	-	- 3
ENVT0075-1	<i>Waste: water, energy and food resources</i> - Luc MINNE - [3h Vis.]	B1	Q2	21	-	[+] 3
ECON0945-1	<i>Economy, energy and environment</i> - 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	<i>Evaluation of the environmental impact: project and introduction to managing databases, part F: Managing databases</i> - Guillaume LOBET	B1	Q2	12	12	- 2
ENVT0736-4	<i>Development projects management and communication, Part 1: Development projects management</i> - N..., Bernard TYCHON	B1	Q1	12	12	- 2
GEST7085-1	<i>Leadership best practices</i> (english language) - Michael GHILISSEN	B1	Q2	-	16	- 2