

#### Cycle view of the study programme

B1 Or Th Pr Au Cr

*Notice* : ONLY AVAILABLE TO STUDENTS REGISTERED BEFORE THE 2021-2022 ACADEMIC YEAR.

#### Compulsory course (B1 : 15Cr)

SMEM0024-1 *Final thesis* - COLLÉGIALITÉ, Pierre M. STASSART B1 TA - - - 15

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

In agreement with the Jury, choose courses for a total of 15 credits from : (B1 : 15Cr)

ENVT0054-1	<i>Personal project (placement, final thesis seminar, workshop-project)</i> - COLLÉGIALITÉ	B1	TA	-	-	-	60	-	5
ENVT0039-2	<i>Modes of environmental knowledge</i> - N...	B1	Q2	24	12	-			3
ENVT2027-3	<i>Application of teledetection and geographical information systems for environmental management</i> - Antoine DENIS, Bernard TYCHON	B1	Q2	18	30	-			3
ENVT0050-1	<i>Industrial pollution</i>	B1	Q2	16	8	-			2
ENVT0051-1	<i>Environment assessment and management tools</i> - Alain HANSON, N..., Nathalie SEMAL	B1	Q2	18	30	-			4
ENVT3057-2	<i>Technologies and energy, Part 1 : Renewable and non-renewable energy resources</i> - N...	B1	Q2	24	12	-			3
ENVT0867-1	<i>Environmental performance of buildings (english language)</i> - Philippe ANDRE	B1	Q2	20	20	-			4
SPOL2306-1	<i>Energy and territorial policies</i> - Part 1 : European policies - Part 2 : Regional and local policies - Part 3 : Prospective scenario	B1	Q2	9	9	-			3
GEOG0664-1	<i>Land use planning and mobility</i> - Christophe BREUER, JeanMarie HALLEUX - [2d FW]	B1	Q2	15	15	[+]			4
ENVT3016-1	<i>Environmental toxicology and health</i> - Part 1: Ecotoxicology and quantification of ecotoxicological risk - Célia JOAQUIMJUSTO - Part 2: Environmental toxicology and health impacts - Corinne CHARLIER	B1	Q2	16	12	-	8	12	4

*Notice* : Replacing the course above with another course from the Master in Environmental Science and Management course may lead to timetable clashes. Students are strongly recommended only to go ahead with the replacement course if the timetables are compatible.

[...] the compulsory courses in the programme of block 1 of the Master in environmental science and management, with a specialised focus (maximum 6 ECTS)

**In agreement with the Jury, choose 30 course credits from one of the five modules below, 6 of which may be replaced by courses from the Master in environmental management sciences, professional focus : (B1 : 1Nbr)**

*Notice* : If students later wish to follow a Masters 120, they cannot enrol for the focus corresponding to the 30 credits chosen.

#### Environmental monitoring

Choose courses totalling 30 ECTS out of the following :

ENVT0055-1	<i>Methodology and sampling</i> - AnneClaude ROMAIN	B1	Q1	24	12	-			3
ENVT3020-1	<i>Tools for measuring environmental parameters : hydrosphere, geosphere - Land contamination and degradation and biosphere</i> - Johan DEROUANE, Célia JOAQUIMJUSTO, Yves MARNEFFE, Joost WELLENS	B1	Q1	32	28	-			6
ENVT3021-1	<i>Tools for measuring environmental parameters : atmosphere</i>	B1	Q1						7

	- <i>Part 1 : Ambient air quality</i> - AnneClaude ROMAIN	24	12	-		
	- <i>Part 2 : Odors from the environment</i> - AnneClaude ROMAIN	16	8	-		
	- <i>Part 3 : Noise</i> - Xavier KAISER	16	8	-		
	- <i>Part 4 : Ionizing and non ionizing radiations</i> - AnneSophie CARNOY	16	8	-		
ENVT3022-1	<i>Tools for measuring environmental parameters : energy flows</i> - Philippe ANDRE	B1	Q1	20	16	- 3
ENVT3023-1	<i>Information representation</i>	B1	Q1			4
	- <i>Part 1 : Indicators</i> - AnneClaude ROMAIN			8	8	-
	- <i>Part 2 : Identification of systems</i> - Philippe ANDRE			8	4	-
	- <i>Part 3 : Spatial information</i> - N..., Bernard TYCHON			12	12	-
ENVT3024-1	<i>Environmental data processing</i>	B1	Q1	24	24	- 4
ENVT3025-1	<i>Environment and health</i>	B1	Q1			3
	- <i>Part 1 : Indoor air quality</i> - AnneClaude ROMAIN			8	8	-
	- <i>Part 2 : Waterborne diseases</i> - HenryMichel CAUCHIE, Leslie OGORZALY, Christian PENNY			9	3	-
	- <i>Part 3 : Impact on human health</i> - Martyna KUSKE			8	4	-
[...]	the courses in the programme of the Master in environmental science and management, with a specialised focus (maximum 6 ECTS)					

#### Societies-environments interfaces

Choose courses totalling 30 ECTS out of the following :

##### Science and Society

ENVT3026-1	<i>Social study of science and technology</i> - François MELARD - [24h SEM]	B1	Q1	12	-	[+] 4
ENVT3027-1	<i>Biodiversity management practices</i>	B1	Q1	36	-	- 4
ENVT3028-1	<i>Civic participation</i> - Dorothée DENAYER, Pierre M. STASSART	B1	Q1	36	-	- 4

##### Governance and sustainable development

ENVT3029-1	<i>Public policy and action</i> - Sébastien BRUNET, Patrick STEYAERT	B1	Q1	24	-	- 4
ENVT0040-2	<i>Transitions theory and management ecological transitions</i> - N..., Pierre M. STASSART - [15h SEM]	B1	Q1	30	30	[+] 4

##### Methodologies

ENVT3030-1	<i>Qualitative investigation techniques</i> - Nathalie SEMAL - Suppl : Dorothée DENAYER - [30h SEM]	B1	Q1	12	-	[+] 4
ENVT0021-2	<i>Field training : case studies</i> - Pierre M. STASSART - [12h SEM, 48h FW]	B1	Q2	9	-	[+] 6

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#### Developing countries

Choose courses totalling 30 ECTS out of the following :

ENVT0063-2	<i>Social anthropology of conservation, Part 1: Conservation of biodiversity and sustainable development</i>	B1	Q1	18	-	- 2
ENVT0064-1	<i>Biodiversity stakes</i> - Alain HAMBUECKERS - [8h FT]	B1	Q1	10	6	[+] 1
ENVT2011-2	<i>Climatology</i> - Louis FRANÇOIS	B1	Q1	20	-	- 2
ENVT0065-1	<i>Agrometeorology</i> - Bernard TYCHON	B1	Q1	18	6	- 2
ENVT2009-1	<i>Sociology of development and the driving forces behind society in developing countries : economic and cultural viewpoints</i> - Philippe LEBAILLY	B1	Q1	24	-	- 2

### Master in environmental science and management (60 ECTS)

ENVT0066-1	<i>Environment and development: geopolitical, institutional, political and legal aspects</i> - Fabio BERTI, Olivier DUPONT	B1	Q1	24	-	-	2
ENVT3035-1	<i>Wastewater treatment, production of drinking water and recovery of wastewater for irrigation</i> - Hugues JUPSIN - [6h FT]	B1	Q1	26	18	[+]	5
ENVT3036-1	<i>Soil conservation</i>	B1	Q1	24	12	-	3
GEOG0040-1	<i>The organisation of urban environments</i> - JeanMarie HALLEUX - [6h SEM]	B1	Q1	15	-	[+]	2
ENVT2063-3	<i>Waste management</i> - Luc MINNE - [6h FT]	B1	Q1	18	-	[+]	2
ENVT2028-2	<i>Food security and early warning systems</i>	B1	Q1	12	12	-	2
ENVT0736-2	<i>Development projects management and communication</i> - N..., Bernard TYCHON, Joost WELLENS	B1	Q1	12	12	-	2
ENVT0067-1	<i>Communication and sustainable development</i>	B1	Q1	8	4	-	1
ENVT2066-1	<i>Integrated management practices and participatory water resources</i> - JeanFrançois DELIÈGE, Joost WELLENS	B1	Q1	12	12	-	2

[...] the courses in the programme of the Master in environmental science and management, with a specialised focus (maximum 6 ECTS)

#### Integrated management of water resources

Choose courses totalling 30 ECTS out of the following :

ENVT3055-1	<i>Environmental climatology, Part 1</i> - Bernard TYCHON	B1	Q1	12	10	-	2
ENVT3055-2	<i>Environmental climatology, Part 2</i> - Moussa EL JARROUDI	B1	Q2	12	10	-	2
GEO11031-1	<i>Management of groundwater quantity and quality</i> - [1d FW]	B1	Q1	24	24	[+]	5
ENVT3038-1	<i>Management of hydrographic and hydraulic networks</i> - Pierre ARCHAMBEAU, Benjamin DEWALS, Sébastien ERPICUM, Michel PIROTON	B1	Q1	30	24	-	5
ENVT3039-1	<i>Sewage treatment and water treatment</i> - Hassan EL HALOUANI, Hugues JUPSIN	B1	Q1	38	32	-	6
ENVT3040-1	<i>Integrated and participative management of water resources</i> - Joost WELLENS	B1	Q1	22	16	-	4
ENVT3041-1	<i>Analytical and decision-making tools for integrated management of water resources</i> - JeanFrançois DELIÈGE	B1	Q1	22	16	-	4
ENVT0056-1	<i>Irrigation and water management</i> - N..., Joost WELLENS	B1	Q1	22	16	-	2

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#### Renewable energies and sustainable buildings

Choose courses totalling 30 ECTS out of the following :

##### Production, distribution and storage of energy

ENVT0068-1	<i>Exploitation of renewable energy</i> - Philippe ANDRE, Philippe ANDRE, Vincent HANUS	B1	Q1	50	34	-	7
ENVT0069-1	<i>Decentralised production and storage of energy</i> - Vincent HANUS, Olivier LOTTIN	B1	Q1	24	12	-	3
ELEC0080-1	<i>Energy networks</i> - Part 1: <i>Electrical energy systems</i> - Damien ERNST - Part 2: <i>Heat networks</i> - Pierre DEWALLEF - [1d FW]	B1	Q1	24	12	-	4
				6	6	[+]	

##### Energy and environmental performance of buildings

ENVT3059-1	<i>Energy optimisation in construction and integrating renewable energies</i> - Philippe ANDRE, N...	B1	Q1	24	12	-	3
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ENVT3043-1	<i>Air conditioning in buildings</i> - Philippe ANDRE	B1	Q1	36	36	-	<b>6</b>
ENVT0070-1	<i>Health and environmental impact of buildings</i> - N..., AnneClaude ROMAIN	B1	Q1	36	-	-	<b>3</b>

#### Energy systems and economic analysis

ENVT0071-1	<i>Project on renewable energy and energy-efficient buildings</i> - Philippe ANDRE, Manfred GREGER, Vincent HANUS, Olivier LOTTIN, N...	B1	Q1	4	20	-	<b>2</b>
ENVT0072-1	<i>Technical and economic analysis of energy systems : theory and project</i> - Abdelhamid KHEIRI	B1	Q1	16	8	-	<b>2</b>

[...] the courses in the programme of the Master in environmental science and management, with a specialised focus (maximum 6 ECTS)

**In agreement with the jury and for specific reasons, courses in the Master's program in environmental science and management may be replaced by courses in other programs.**