## Cycle view of the study programme

| | | Bl | Or | Th | Pr | Au | Cr |
|---|---|---|---|---|---|---|---|

*Notice* : The list of refresher courses aimed at students who have direct access to the 2nd year of the Masters with a possible addition to the programme is available from the Jury or from the student services of the Faculty of Sciences.

**Core curriculum compulsory courses (B1 : 48Cr, B2 : 25Cr)**

**Socio-ecological issues: regulated sectors of the environment**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0892-1 | *Integrated energy management, particularly in the construction industry* - Deepak AMARIPADATH, Maxime HABRAN | B1 | Q1 | 28 | 12 | - | **4** |
| ENVT3040-2 | *Integrated and participative management of water resources* - Johan DEROUANE, Joost WELLENS | B1 | Q1 | 24 | 16 | - | **4** |
| ENVT3127-1 | *Biodiversity and societies* - Dorothée DENAYER | B1 | Q1 | 30 | 10 | - | **4** |
| ENVT0893-1 | *Air quality: Pressure - State - Response* - AnneClaude ROMAIN, Bernard TYCHON | B1 | Q1 | 34 | 4 | - | **4** |
| ENVT0894-1 | *Environment (soil)* - Bernard TYCHON | B1 | Q1 | 25 | 15 | - | **4** |

**Cross-cutting approaches to environmental issues**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0010-1 | *Seminar - Integrated approach to environmental issues* - Ida BERTEL, Dorothée DENAYER, Moussa EL JARROUDI, JeanFrançois HENRICHE, Marie LANG, N... - Suppl : Corentin HECQUET - [30h SEM, 30h Mon. WS] | B1 | Q2 | 3 | - | [+] | **4** |
| ENVT0846-2 | *Introduction to the Anthropocene* - Aurore FRANSOLET - [6h FW, 4h SEM] | B1 | Q1 | 20 | - | [+] | **2** |
| ENVT0049-1 | *System analysis applied to environment* - Deepak AMARIPADATH | B1 | Q1 | 14 | 6 | - | **2** |
| ENVT4124-1 | *Environmental data processing* - Laurent LOOSVELDT - [10h Mon. WS] | B1 | Q2 | 10 | 10 | [+] | **3** |
| ENVT3045-1 | *Ecosystems : conditions, anthropic impacts and management* - Dorothée DENAYER, Célia JOAQUIMJUSTO - [16h Cl. inv.] | B1 | Q2 | 4 | 20 | [+] | **4** |
| ECON0945-1 | *Economy, energy and environment* - Pierre COPÉE, Jérome SCHOENMAECKERS | B1 | Q1 | 25 | 5 | - | **3** |
| SPOL0382-2 | *Foundations of environmental politicies/law* - Sylviane LEPRINCE | B1 | Q2 | 30 | - | - | **3** |
| ENVT2027-3 | *Application of teledetection and geographical information systems for environmental management* - Antoine DENIS, Bernard TYCHON | B1 | Q2 | 14 | 26 | - | **4** |
| ENVT3054-2 | *Methodological Approach to Environmental Science* - Marjorie BARDIAU, Léna CAUCHIE, Antoine DENIS - [4h Mon. WS] | B1 | Q1 | 16 | 10 | [+] | **3** |
| SMEM0042-1 | *Dissertation* - COLLÉGIALITÉ, Joost WELLENS | B2 | TA | - | - | - | **25** |

**Common core courses (B1 : 12Cr, B2 : 5Cr)**

**Specialised courses**

With the jury¿s agreement and depending on the student¿s course, choose three courses from: (B1 : 12Cr)

Remarks:
- Courses will only be organised if at least 5 students are enrolled.
- Course ENVT0155-1 cannot be taken at the same time as courses CLIM0661-1 and ENVT0895-1 (timetable conflict).

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GEOG0664-1 | *Land use planning and mobility* - Christophe BREUER, JeanMarie HALLEUX - [2d FW] | B1 | Q2 | 15 | 15 | [+] | **4** |
| ENVT0895-1 | *Environment and development: social, economic, cultural, institutional, legal and political aspects* - Olivier DUPONT - [16h Mon. WS] | B1 | Q2 | 32 | - | [+] | **4** |
| CLIM0661-1 | *Climatology and climate change* - Sébastien DOUTRELOUP | B1 | Q2 | 32 | 8 | - | **4** |
| ENVT3026-1 | *Social study of science and technology* - François MELARD - [24h | B1 | Q1 | 12 | - | [+] | **4** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | SEM] | | | | | | |
| ENVT0155-1 | *Methodology, sampling, indicators* - AnneClaude ROMAIN | B1 | Q2 | 36 | 4 | - | **4** |
| ENVT3046-1 | *Pressures on the underground*<br>*- Part 1: geological map* - Léna CAUCHIE<br>*- Part 2 : groundwater* - Philippe ORBAN | B1 | Q2<br>4<br>12 | <br>4<br>12 | <br>-<br>- | | **4** |
| ENVT3016-1 | *Environmental toxicology and health*<br>*- Part 1: Ecotoxicology and quantification of ecotoxicological risk* - Célia JOAQUIMJUSTO<br>*- Part 2: Environmental toxicology and health impacts* - Corinne CHARLIER | B1 | Q2<br>16<br>8 | <br>8<br>6 | <br>-<br>- | | **4** |

The "Master in Environmental Science and Management, specialised focus" may be followed in a specific format entitled "Master in Environmental Science and Management, specialised focus, offered as a joint degree with the University of Luxembourg".
Students enrolled in this joint degree programme from the first year (Block 1) will take 30 credits of compulsory courses at ULiège during the first term of the first year (no optional courses). During the second term of the first year, they will take 30 credits of courses from the Master in Sustainable Development (Energy and Environment track) at the University of Luxembourg, in Luxembourg, taught in English.
Only students enrolled in the joint degree programme will have access, in the second year, to the module "Renewable energy and sustainable buildings".
The full list of courses included in this joint degree programme with the University of Luxembourg is available at the following address:

https://www.programmes.uliege.be/cocoon/20262027/programmes/S2SENV02_B.html

With the approval of the Board of Examiners and for duly justified reasons, the courses included in the list of elective courses in Block 1 may be replaced by courses chosen from the programmes of other degree courses within the Faculty of Science, other faculties or other universities.

With the jury¿s agreement, choose one or more courses to support the dissertation for a total of 5 credits from: (B2 : 5Cr)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SSTG0154-1 | *Internship* - COLLÉGIALITÉ, Joost WELLENS - [60h Internship] | B2 | TA | - | - | [+] | **5** |
| ENVT1154-1 | *Citizen service* - COLLÉGIALITÉ, N... | B2 | TA | - | 60 | - | **5** |
| [...] | by means of reinforcing specific skills, courses in the Masters in Environmental Sciences and Management | | | | | | |
| [...] | or the courses from another programme | | | | | | |

**Focus compulsory courses (B2 : 10Cr)**

**Cross-cutting approaches to environmental issues**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0040-2 | *Transitions theory and management ecological transitions* - Aurore FRANSOLET - [15h SEM] | B2 | Q1 | 30 | 30 | [+] | **5** |
| ENVT0897-1 | *Introduction to environmental and health risks* - HenryMichel CAUCHIE, Pierre OZER - [6h SEM, 2d FW] | B2 | Q1 | 24 | 12 | [+] | **5** |

**Focus optional courses (B2 : 20Cr)**

**In agreement with the jury, choose one of the 5 modules below: (B2 : 1Nbr)**

*Notice* : A module may not be organised if fewer than 3 students are registered for each of the 3 courses in that module.

**Module: monitoring of polluted atmospheres (B2 : 1Nbr)**

(Coordinator: Anne-Claude ROMAIN)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0170-1 | *Environmental impact of buildings* - AnneSophie CARNOY, AnneClaude ROMAIN | B2 | Q1 | 32 | 8 | - | **4** |
| ENVT0898-1 | *Sensory pollution (smell, noise, light, etc.)* - Aurore FANAL, Emmanuel JEHIN, Xavier KAISER, Thierry KERVYN, AnneClaude ROMAIN, Francis VENTER | B2 | Q1 | 32 | 10 | - | **4** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0899-1 | *Metrology of atmospheric pollutants* - AnneClaude ROMAIN - [6h Vis.]<br>**Prerequisite :**<br>ENVT0893-1 - Qualité de l'air : Pression - Etat - Réponse | B2 | Q1 | 30 | 4 | [+] | **4** |

**Module: mediation and transition (B2 : 1Nbr)**

(Coordinator: Dorothée DENAYER)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT3028-1 | *Civic participation* - Dorothée DENAYER, Aurore FRANSOLET | B2 | Q1 | 36 | - | - | **4** |
| ENVT3030-2 | *Qualitative investigation techniques* - Dorothée DENAYER, Aurore FRANSOLET - Suppl : Corentin HECQUET - [30h Cl. inv.] | B2 | Q1 | 12 | - | [+] | **4** |
| ENVT0021-3 | *Field training : case studies* - Aurore FRANSOLET - [12h SEM, 48h Mon. WS] | B2 | Q2 | 9 | - | [+] | **4** |

**Module: developing countries (B2 : 1Nbr)**

(Coordinator: Bernard TYCHON)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT3035-2 | *Wastewater treatment, production of drinking water and recovery of wastewater for irrigation* - Hugues JUPSIN - [10h FT] | B2 | Q1 | 24 | 6 | [+] | **4** |
| ENVT0073-1 | *Agricultural production systems and food security* - Antoine DENIS, Moussa EL JARROUDI, Pierre OZER, Bernard TYCHON | B2 | Q1 | 20 | 20 | - | **4** |
| ENVT0736-5 | *Development projects management and communication*<br>- *Théorie et travaux pratiques* - Bakary DJABY, Bernard TYCHON<br>- *Travail personnel* - [24h Mon. WS] | B2 | Q1<br>12<br>- | <br>12<br>- | <br>-<br>[+] | | **4** |

**Module: integrated water resources management (B2 : 1Nbr)**

(Coordinator: Joost WELLENS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT3035-2 | *Wastewater treatment, production of drinking water and recovery of wastewater for irrigation* - Hugues JUPSIN - [10h FT] | B2 | Q1 | 24 | 6 | [+] | **4** |
| ENVT0900-1 | *Socio-economy of water* - Joost WELLENS | B2 | Q1 | 20 | 20 | - | **4** |
| ENVT0056-2 | *Irrigation and water management* - Joost WELLENS | B2 | Q1 | 30 | 8 | - | **4** |

**Module: renewable energy and sustainable buildings (B2 : 1Nbr)**

(Coordinator: N...)

Module available only as part of the joint degree programme with the University of Luxembourg

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0068-2 | *Exploitation of renewable energy* - Deepak AMARIPADATH, Vincent HANUS, Frédéric LEBEAU, N... - [0,5d FT] | B2 | Q1 | 37 | 3 | [+] | **4** |
| ENVT0072-2 | *Project approach: theory and economic issues* - Deepak AMARIPADATH, Vincent HANUS, Abdelhamid KHEIRI, N..., N... | B2 | Q1 | 12 | 8 | - | **2** |
| ENVT0867-1 | *Overall performance of buildings: physical, technical, environmental, and regulatory aspects* - Deepak AMARIPADATH | B2 | Q1 | 20 | 20 | - | **6** |

In agreement with the jury and depending on your background, choose two of the 7 courses below: (B2 : 8Cr)

*Notice* : - Courses will only be organised if at least three students are enrolled.
- The timetables of courses ENVT0069-2 and ENVT0904-1 may not be compatible with the last four courses in the list below (GEOL1031-2, ENVT3041-1, ENVT3029-1, ENVT0902-1).

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0069-2 | *Decentralised production and storage of energy* - Vincent HANUS, Olivier LOTTIN, N..., N..., Sébastien THOMAS | B2 | Q1 | 30 | 10 | - | **4** |
| ENVT0904-1 | *Simulation and experimentation of building energy systems* - Deepak AMARIPADATH | B2 | Q1 | 24 | 36 | - | **4** |
| ENVT0905-1 | *Energy communities* - Deepak AMARIPADATH, Damien ERNST | B2 | Q1 | 20 | 20 | - | **4** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GEOL1031-2 | *Management of groundwater quantity and quality* - Serge BROUYÈRE, Philippe ORBAN - [1d FW] | B2 | Q1 | 25 | 15 | [+] | **4** |
| ENVT3041-1 | *Analytical and decision-making tools for integrated management of water resources* - JeanFrançois DELIÈGE | B2 | Q1 | 22 | 16 | - | **4** |
| ENVT3029-1 | *Public policy and action* - Sébastien BRUNET, Sylvie MARIQUE, N..., Patrick STEYAERT | B2 | Q1 | 27 | - | - | **4** |
| ENVT0902-1 | *Modelling atmospheric dispersion* - Marie DURY, Fabian LENARTZ, AnneClaude ROMAIN<br>**Prerequisite :**<br>ENVT0893-1 - Qualité de l'air : Pression - Etat - Réponse | B2 | Q1 | 20 | 20 | - | **4** |

*Notice* : The module ¿Renewable Energy and Sustainable Buildings¿ is open only to students enrolled from the first year (Block 1) in the ¿Master in Environmental Management, with a professional focus, jointly awarded with the University of Luxembourg¿. Within this master's programme, the second term (30 credits) of the first year is shared with the Master in Sustainable Development (Energy and Environment Track) at the University of Luxembourg. The full list of courses included in this joint degree programme is available at the following link: https://www.programmes.uliege.be/cocoon/20262027/programmes/S2SENV02_B.html

In agreement with the Examination Board and for duly justified reasons, the courses selected from the list of seven elective courses in the Block 2 focus area may be replaced by courses selected from the list of elective courses in Block 1 or by courses chosen from the curricula of other programmes offered by the Faculty of Science, other faculties or other universities.

## Bridging courses Master in environmental science and management - organized in Arlon (120 credits)

**Optional courses (B0 : 14Cr)**

Depending on the student's prior academic background, the board of examiners determines the bridging courses the student must take, for a maximum of 14 credits, from the following: (B0 : 14Cr)

[...] Up to 14 credits

**Courses list**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENVT0060-1 | *Introduction to environmental sociology, Part 1: Approaches in environmental sociology* - François MELARD | B0 | Q1 | 8 | 8 | - | **2** |
| ECON0944-1 | (pas organisé en 2026-2027) *Elements of economy for environmental sciences* - Pierre COPÉE | B0 | Q1 | 18 | 2 | - | **2** |
| ENVT0048-2 | *Statistics applied to the environment: introduction to the statistical approach and aspects of univariate statistics* - Laurent LOOSVELDT | B0 | Q1 | 15 | 15 | - | **3** |
| LANG2972-1 | *English 1 - Level 1: reading English texts at level B2* (english language) - Clara BRERETON, Kevin NOIROUX - [10h Mon. Read.] | B0 | Q1 | 10 | 10 | [+] | **2** |
| LANG2973-1 | *English 2 - Level 1: reading scientific articles in English* (english language) - Clara BRERETON, Kevin NOIROUX - [10h Mon. Read.] | B0 | Q2 | 10 | 10 | [+] | **2** |
| ENVT0906-1 | *Introduction to environmental chemistry* - Armélinda AGNELLO, Justin MARTIN | B0 | Q1 | 20 | 4 | - | **2** |
| ENVT0907-1 | *Introduction to environmental biology* - Dorothée DENAYER, Célia JOAQUIMJUSTO | B0 | Q1 | 10 | 4 | - | **2** |
| ENVT0908-1 | *Introduction to environmental physics* - Deepak AMARIPADATH | B0 | Q1 | 14 | 6 | - | **2** |
| ENVT0909-1 | *Introduction to environmental thermodynamics* - Deepak AMARIPADATH | B0 | Q1 | 14 | 6 | - | **2** |