

#### Cycle view of the study programme

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

##### Cross-cutting approaches to environmental issues

|            |  |    |    |    |    |     |    |
|------------|--|----|----|----|----|-----|----|
| ENVT0010-1 | <i>Seminar - Integrated approach to environmental issues</i> - Dorothée DENAYER, Moussa EL JARROUDI, Claudia FALZONE, Koufanou HIEN, Marie LANG, N..., Nathalie SEMAL, Bernard TYCHON - [30h SEM, 30h Mon. WS]   | B1 | Q2 | 3  | -  | [+] | 4  |
| ENVT0846-2 | <i>Introduction to the Anthropocene</i> - Pierre M. STASSART - [6h FW, 4h SEM]   | B1 | Q1 | 20 | -  | [+] | 2  |
| ENVT0049-1 | <i>System analysis applied to environment</i> - Philippe ANDRE   | B1 | Q1 | 14 | 6  | -   | 2  |
| ENVT3124-1 | <i>Environmental data processing</i><br>- Part 1: Univariate and bivariate statistics in the environment - Laurent LOOSVELDT<br>- Part 2: Introduction to R - Laurent LOOSVELDT<br>- Part 3: Statistical arguments - Gentiane HAESBROECK - [6h Cl. inv.] | B1 | Q2 | 8  | 8  | -   | 4  |
| ENVT3045-1 | <i>Ecosystems : conditions, anthropic impacts and management</i> - Dorothée DENAYER, Célia JOAQUIMJUSTO - [16h Cl. inv.]   | B1 | Q2 | 4  | 20 | [+] | 4  |
| ECON0945-1 | <i>Economy, energy and environment</i> - Axel GAUTIER, Jérôme SCHOENMAECKERS   | B1 | Q1 | 16 | -  | -   | 2  |
| SPOL0382-2 | <i>Foundations of environmental policies/law</i> - Sylviane LEPRINCE   | B1 | Q2 | 30 | -  | -   | 3  |
| ENVT2027-3 | <i>Application of teledetection and geographical information systems for environmental management</i> - Antoine DENIS, Bernard TYCHON  | B1 | Q2 | 14 | 26 | -   | 4  |
| ENVT3054-2 | <i>Methodological Approach to Environmental Science</i> - Marjorie BARDIAU, Léna CAUCHIE, Antoine DENIS - [4h Mon. WS]   | B1 | Q1 | 16 | 10 | [+] | 3  |
| SMEM0042-1 | <i>Dissertation</i> - COLLÉGIALITÉ, N...   | 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).

*Notice* : Courses only take place if at least five students are registered.

|            |  |    |    |    |    |     |   |
|------------|--|----|----|----|----|-----|---|
| GEOG0664-1 | <i>Land use planning and mobility</i> - Christophe BREUER, JeanMarie HALLEUX - [2d FW] | B1 | Q2 | 15 | 15 | [+] | 4 |
|------------|--|----|----|----|----|-----|---|

|            |  |    |    |    |   |     |   |
|------------|--|----|----|----|---|-----|---|
| ENVT0895-1 | <i>Environment and development: social, economic, cultural, institutional, legal and political aspects</i> - Olivier DUPONT - [16h Mon. WS]  | B1 | Q2 | 32 | - | [+] | 4 |
| CLIM0661-1 | <i>Climatology and climate change</i> - Sébastien DOUTRELOUP   | B1 | Q2 | 32 | 8 | -   | 4 |
| ENVT3026-1 | <i>Social study of science and technology</i> - François MELARD - [24h SEM]  | B1 | Q1 | 12 | - | [+] | 4 |
| ENVT0155-1 | <i>Methodology, sampling, indicators</i> - AnneClaude ROMAIN   | B1 | Q2 | 36 | 4 | -   | 4 |
| ENVT3046-1 | <i>Pressures on the underground</i><br>- Part 1: geological map - Léna CAUCHIE<br>- Part 2 : groundwater - Philippe ORBAN  | B1 | Q2 | 4  | 4 | -   | 4 |
| ENVT3016-1 | <i>Environmental toxicology and health</i><br>- Part 1: Ecotoxicology and quantification of ecotoxicological risk - Célia JOAQUIMJUSTO<br>- Part 2: Environmental toxicology and health impacts - Corinne CHARLIER | B1 | Q2 | 16 | 8 | -   | 4 |
|            |  |    |    | 8  | 6 | -   |   |

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/20252026/programmes/S2SENV02\\_B.html](https://www.programmes.uliege.be/cocoon/20252026/programmes/S2SENV02_B.html)

With the agreement of the jury and for duly justified reasons, courses from the Master's programme in Environmental Science and Management (specialised focus) may be replaced by courses chosen from other programmes 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 | <i>Internship</i> - COLLÉGIALITÉ, Joost WELLENS - [60h Internship]                                       | B2 | TA | - | -  | [+] | 5 |
| ENVT1154-1 | <i>Citizen service</i> - COLLÉGIALITÉ, Pierre M. STASSART  | 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 | <i>Transitions theory and management ecological transitions</i> - N..., Pierre M. STASSART - [15h SEM]     | B2 | Q1 | 30 | 30 | [+] | 5 |
| ENVT0897-1 | <i>Introduction to environmental and health risks</i> - 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 | <i>Environmental impact of buildings</i> - AnneSophie CARNOY, AnneClaude ROMAIN  | B2 | Q1 | 32 | 8  | -   | 4 |
| ENVT0898-1 | <i>Sensory pollution (smell, noise, light, etc.)</i> - Xavier KAISER, Thierry KERVYN, AnneClaude ROMAIN, Francis VENTER  | B2 | Q1 | 32 | 10 | -   | 4 |
| ENVT0899-1 | <i>Metrology of atmospheric pollutants</i> - AnneClaude ROMAIN - [6h Vis.]<br><b>Prerequisite :</b><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 | <i>Civic participation</i> - Dorothée DENAYER, Pierre M. STASSART                               | B2 | Q1 | 36 | - | -   | 4 |
| ENVT3030-2 | <i>Qualitative investigation techniques</i> - Dorothée DENAYER, Nathalie SEMAL - [30h Cl. inv.] | B2 | Q1 | 12 | - | [+] | 4 |
| ENVT0021-3 | <i>Field training : case studies</i> - Pierre M. STASSART - [12h SEM, 48h Mon. WS]              | B2 | Q2 | 9  | - | [+] | 4 |

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

(Coordinator: Bernard TYCHON)

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

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

(Coordinator: Joost WELLENS)

|            |  |    |    |    |    |     |   |
|------------|--|----|----|----|----|-----|---|
| ENVT3035-2 | <i>Wastewater treatment, production of drinking water and recovery of wastewater for irrigation</i> - Hugues JUPSIN - [10h FT] | B2 | Q1 | 24 | 6  | [+] | 4 |
| ENVT0900-1 | <i>Socio-economy of water</i> - Joost WELLENS  | B2 | Q1 | 20 | 20 | -   | 4 |
| ENVT0056-2 | <i>Irrigation and water management</i> - 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 | <i>Exploitation of renewable energy</i> - Philippe ANDRE, Vincent HANUS, N..., N... - [0,5d FT]        | B2 | Q1 | 37 | 3  | [+] | 4 |
| ENVT0072-2 | <i>Project approach: theory and economic issues</i> - Philippe ANDRE, Vincent HANUS, Abdelhamid KHEIRI | B2 | Q1 | 12 | 8  | -   | 2 |
| ENVT0904-1 | <i>Simulation and optimisation of building energy systems</i> - Philippe ANDRE                         | B2 | Q1 | 24 | 36 | -   | 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 ENVT0867-1 may not be compatible with the last four courses in the list below (GEOL1031-2, ENVT3041-1, ENVT3029-1, ENVT0902-1).

|            |  |    |    |    |    |   |   |
|------------|--|----|----|----|----|---|---|
| ENVT0069-2 | <i>Decentralised production and storage of energy</i> - Vincent HANUS, | B2 | Q1 | 30 | 10 | - | 4 |
|------------|--|----|----|----|----|---|---|

Olivier LOTTIN, Sébastien THOMAS

|   |   |    |    |    |    |     |   |
|---|---|----|----|----|----|-----|---|
| ENVT0867-1  | <i>Environmental performance of buildings</i> (english language) - Philippe ANDRE                               | B2 | Q1 | 20 | 20 | -   | 4 |
| ENVT0905-1  | <i>Energy communities</i> - Philippe ANDRE, Damien ERNST  | B2 | Q1 | 20 | 20 | -   | 4 |
| GEOL1031-2  | <i>Management of groundwater quantity and quality</i> - Serge BROUYÈRE, Philippe ORBAN - [1d FW]                | B2 | Q1 | 25 | 15 | [+] | 4 |
| ENVT3041-1  | <i>Analytical and decision-making tools for integrated management of water resources</i> - JeanFrançois DELIÈGE | B2 | Q1 | 22 | 16 | -   | 4 |
| ENVT3029-1  | <i>Public policy and action</i> - Sébastien BRUNET, N..., Patrick STEYAERT                                      | B2 | Q1 | 27 | -  | -   | 4 |
| ENVT0902-1  | <i>Modelling atmospheric dispersion</i> - Fabian LENARTZ, N..., AnneClaude ROMAIN                               | B2 | Q1 | 20 | 20 | -   | 4 |
| <b>Prerequisite :</b>                                     |   |    |    |    |    |     |   |
| ENVT0893-1 - Qualité de l'air : Pression - Etat - Réponse |   |    |    |    |    |     |   |

**Notice :** The "Renewable energy and sustainable buildings" module is only accessible to students enrolled from the first year (Block 1) in the "Master in Environmental Science and Management, with a specialised focus, offered as a joint degree with the University of Luxembourg". In 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 address:  
[https://www.programmes.uliege.be/cocoon/20252026/programmes/S2SENV02\\_B.html](https://www.programmes.uliege.be/cocoon/20252026/programmes/S2SENV02_B.html)

With the agreement of the board of examiners and for duly justified reasons, the courses listed as optional courses within the focus may be replaced by courses listed as optional courses in block 1, or by courses selected from the curricula of other programmes within 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)

|            |   |    |    |    |    |     |   |
|------------|---|----|----|----|----|-----|---|
| ENVT0060-1 | <i>Introduction to environmental sociology, Part 1: Approaches in environmental sociology</i> - François MELARD                                 | B0 | Q1 | 8  | 8  | -   | 2 |
| ECON0944-1 | (pas organisé en 2025-2026) <i>Elements of economy for environmental sciences</i> - N...  | B0 | Q1 | 18 | 2  | -   | 2 |
| ENVT0048-2 | <i>Statistics applied to the environment: introduction to the statistical approach and aspects of univariate statistics</i> - Laurent LOOSVELDT | B0 | Q1 | 15 | 15 | -   | 3 |
| LANG2972-1 | <i>English 1 - Level 1: reading English texts at level B2</i> (english language) - Clara BRERETON, Kevin NOIROUX - [10h Mon. Read.]             | B0 | Q1 | 10 | 10 | [+] | 2 |
| LANG2973-1 | <i>English 2 - Level 1: reading scientific articles in English</i> (english language) - Clara BRERETON, Kevin NOIROUX - [10h Mon. Read.]        | B0 | Q2 | 10 | 10 | [+] | 2 |
| ENVT0906-1 | <i>Introduction to environmental chemistry</i> - Armélinda AGNELLO, Justin MARTIN   | B0 | Q1 | 20 | 4  | -   | 2 |
| ENVT0907-1 | <i>Introduction to environmental biology</i> - Dorothée DENAYER, Célia JOAQUIMJUSTO   | B0 | Q1 | 10 | 4  | -   | 2 |
| ENVT0908-1 | <i>Introduction to environmental physics</i> - Philippe ANDRE   | B0 | Q1 | 14 | 6  | -   | 2 |

