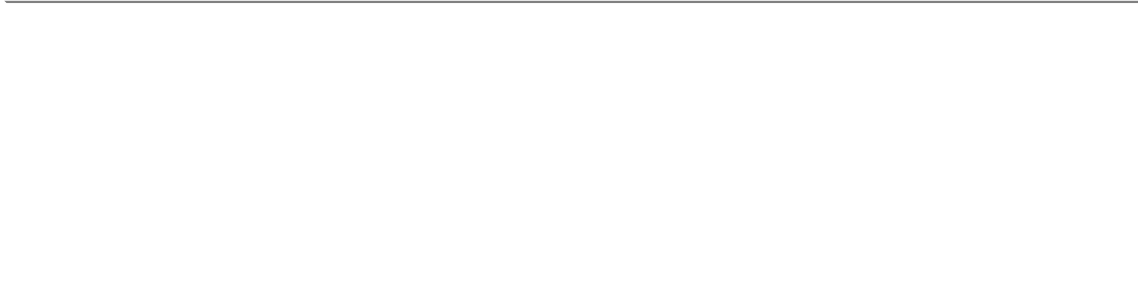




ENVI2MC  
2023 - 2024

Interdisciplinary Advanced Master in Science and Management  
of the Environment and Sustainable Development



## ENVI2MC - Introduction

### Introduction

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## ENVI2MC - Teaching profile

### Learning outcomes

A general presentation of the interdisciplinary specialized master in science and management of the environment and sustainable development is available on the portal of the [Faculty of Bioscience engineering](#).

The specialized master in science and management of the environment and sustainable development offers both recent graduate and experienced professionals the opportunity to learn the basics of environmental science, and the management of environmental issues, which are complex in nature and involve many disciplines. The master is organized to be accessible to graduates (master level) of all faculties, including the sector of science and technology, the sector of human sciences or the health sciences sector, as well as higher schools.

At the end of the training, the graduate in science and management of the environment will be able to contribute to the management of environmental issues: to investigate the problem and analyze it in its entirety, to summarize the positions of the various stakeholders, including experts, communicate them in an understandable way to all parties, synthesize and propose solutions, and argue them to reach a consensus between all stakeholders.

The student's program includes an upgrade based on his or her basic training. This upgrade aims at acquiring basic knowledge in the various disciplines involved in environmental issues: science and technology (chemistry, biology, ecology, computer science, statistics, geography ...) and human sciences (sociology, law, economics, philosophy ...).

Part of the program aims to address environmental issues through different disciplines (economics, law, politics, toxicology, science and technology). Finally, part of the program also aims to develop its ability to approach environmental issues between disciplines, integrating their respective contributions (interdisciplinary approach), and to seek and negotiate consensus solutions with different stakeholders.

On successful completion of this programme, each student is able to :

1. To analyse the scientific, technical and non-technical dimensions of an environmental problem.
  - 1.1 To identify the stakeholders concerned by the environmental issue: the general public, scientific experts, non-governmental organisations, public authorities, companies, etc.
  - 1.2 To gather and synthesize information, in French and English, on the various dimensions of the environmental issue: scientific, technical/technological, human, etc.
  - 1.3 To use basic theoretical concepts in science and technology in an appropriate manner: chemistry, biology, ecology, toxicology, IT, statistics, geography, etc. related to the environmental issue.
  - 1.4 To use basic theoretical concepts in human sciences in an appropriate manner: sociology, philosophy, law, economics, etc. related to the environmental issue.
  - 1.5 To communicate with different stakeholders and with independent experts, to identify the elements underlying their respective viewpoints and to incorporate them into the analysis.
  - 1.6 To establish links between the basic concepts in science and technology and the human sciences to understand and explain the environmental issue as a whole.
  - 1.7 To work with colleagues to interpret all the aspects and facets of the environmental issue.
2. To construct and develop one or more solutions to tackle the environmental issue, taking into account the technological and non-technological aspects.
  - 2.1 To synthesize various types of documents related to an environmental issue (scientific and technical / technological and humanities)
  - 2.2 To summarise the views of stakeholders involved in the environmental issue.
  - 2.3 To develop innovative proposals of solutions to the environmental issue with the support of stakeholders, by combining the data and scientific, technical / technological and non-technical approaches available.
  - 2.4 To select in a substantiated way (self-assessment) the proposals for solutions that best fulfil the different dimensions of the environmental issue (scientific, technical / technological and non-technical).
  - 2.5 To project herself/himself in the position of the different stakeholders and, in relation with each of them, to decipher their views and positions with regard to the environmental issue and anticipate their reactions to new data and proposals.
  - 2.6 To evaluate solutions against all criteria (feasibility, consistency, stakeholders, etc.) and dimensions (scientific, technical / technological and humanities).
3. To communicate the proposed environmental solutions to the stakeholders.
  - 3.1 To present the analysis of the environmental problem and the proposed solutions orally and in writing, in a substantiated manner using modern communication techniques.
  - 3.2 To adapt the language and specific vocabulary taking into consideration the cultural differences of the conversational partners: colleagues, general public, scientific experts, non-governmental organisations, public authorities, business representatives, etc.
4. To negotiate a consensual environmental solution between stakeholders, based on the various solutions proposed.
  - 4.1 To interpret the views of stakeholders on the environmental issue.
  - 4.2 To arbitrate the views of stakeholders on the environmental solutions.
  - 4.3 To convince stakeholders through argumentation on a common solution to the environmental issue.
  - 4.4 To make choices, alone or within a team, taking into account all the dimensions and all the stakeholders, targeting to reach a consensual solution.

## Programme structure

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### Learning Outcomes

The Specialization Master in science and management of the environment and sustainable development trains graduates able to dialogue (to understand and to be understood) with experts from different disciplines involved in the management of environmental issues and sustainable development (economics, environmental sciences, ethical, societal and technical aspects in a systemic approach), and with all stakeholders. The master prepares them to make decisions and to take action to solve problems in the fields of environment and sustainable development. This training therefore entails a solid teaching sweeping covering all aspects related to natural sciences related to the environment, as well as economics, social, demographic, legal and political aspects, all related to the environment.

The program of the interdisciplinary Specialized Master in science and management of the environment and sustainable development is structured as follows:

#### 1. The core of the curriculum :

- mandatory common specific activities, disciplinary and interdisciplinary
- interdisciplinary integrative activities
- an internship in a professional environment
- a personal report on the internship

2. Disciplinary reinforcement activities. These activities allow students from different backgrounds to learn the basics in disciplines that have not been the subject of their initial training. Students must have completed training in these various disciplines; they can be exempted in the framework of the ENVI2MC Master if they have succeeded (> 12/20) equivalent courses at the university level.

3. A program of courses chosen within a pre-established field or selected among courses offered in several fields

Each individual program must be approved by the program coordinator.







Year







## The programme's courses and learning outcomes

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For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies the the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

## ENVI2MC - Information

### Access Requirements

*In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail.*

*Decree of 7 November 2013 defining the landscape of higher education and the academic organization of studies.*

*The admission requirements must be met prior to enrolment in the University.*

*Unless explicitly mentioned, the bachelor's, master's and licentiate degrees listed on this page are to be understood as those issued by an institution of the French, Flemish or German-speaking Community, or by the Royal Military Academy.*

***In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail.***

#### SUMMARY

- [General access requirements](#)
- [Specific access requirements](#)

### General access requirements

Translated from [https://www.galilex.cfwb.be/fr/leg\\_res\\_01.php?ncda=39681&referant=I02](https://www.galilex.cfwb.be/fr/leg_res_01.php?ncda=39681&referant=I02)

Art. 112. of the "Décret définissant le paysage de l'enseignement supérieur et l'organisation académique des études" :

§ 1. In accordance with the general requirements established by the academic authorities, students who have:

1. a master's degree;
2. an academic degree similar to the one mentioned in the preceding paragraph awarded by a higher education institution in the Flemish Community or the German-speaking Community, or by the Royal Military Academy, by virtue of a decision of the academic authorities and in accordance with any additional requirements they may establish;
3. a foreign academic degree recognised as equivalent to those mentioned in paragraphs 1 and 2 pursuant to this decree, a European directive, an international convention or other legislation, in accordance with the same requirements.

The additional admission requirements referred to in paragraph 2 are intended to ensure that the student has acquired the knowledge and skills required for the studies in question. When the additional admission requirements consist of one or more additional course units, these may not represent more than 60 additional credits for the student, taking into account all the credits that he or she may otherwise use for admission. These course units are part of the student's study programme.

§ 2. In accordance with the general requirements established by the academic authorities, a student who holds a title, diploma, degree or certificate of higher education, in the French Community or outside it, which does not grant him or her eligibility for admission to a specialised master's course by virtue of the preceding paragraph, may nevertheless be admitted by the jury of the course in question, in accordance with the additional requirements that it establishes, if the totality of the higher education that he or she has completed or the expertise that he or she has acquired is valued by the jury to be at least 240 credits.

§ 3. By way of derogation from these general requirements, the academic authorities may also admit to a specialised master's course holders of a title, diploma, degree or certificate awarded outside the French Community which, in that system of origin, grants direct eligibility for postgraduate studies, even if the studies sanctioned by these credentials are not organised into distinct degree courses or within a time period of at least five years.

### Specific access requirements

Before initiating any application for admission to this specific program, you are invited to read carefully the general information on the master and the "Frequently Asked Questions" (FAQ) listed on the website of this program. It is strongly recommended to consult this source of information to prepare your application.

Applicants with a degree delivered outside the French Community of Belgium are required to demonstrate sufficient knowledge of the French language (B1 level of the Common European Framework of Reference).

Students who have completed postgraduate training outside the French Community of Belgium and have obtained at least 70% on average in their home university have the opportunity to apply for admission in the program. This admission criterion is strictly applied. However, it may be waived with significant professional experience and duly attested quality. For more information, please contact the Academic Advisor.

The master is spread over two years and there is no possibility to follow only the 2nd year of master.

If you have not found answers to your questions, you can contact us at the following address: [info-agro@uclouvain.be](mailto:info-agro@uclouvain.be)

#### Specific conditions

A mastery of the French language of level B1 ([Common European Framework of reference for languages](#)).

1. Students holding a master's degree obtained in a country belonging to the European Union

a/ The following three criteria must be met simultaneously:

- the average grade for master's classes must be at least 70% (14/20);
- the grade for the final project (thesis/dissertation/internship) must be at least 70% (14/20);
- the final project (thesis/thesis/internship) of at least 15 credits must be the subject of a report and defence (viva) before a jury.

b/ These criteria may be waived on the basis of duly attested significant professional or personal experience.

2. Students holding a master's degree obtained in a country outside the European Union

a/ The following three criteria must be met simultaneously :

- the average grade for master's classes must be at least 75% (15/20);
- the grade for the final project (thesis/dissertation/internship) must be at least 75% (15/20);
- the final project (thesis/thesis/internship) of at least 15 credits must be the subject of a report and defence (viva) before a jury.

b/ These criteria may be waived on the basis of duly attested significant professional or personal experience.



- Commission de programme - Master Bioingénieur-Chimie et bioindustries ([BIRC](#))
- Commission de programme - Master Bioingénieur-Sciences & technologies de l'environnement ([BIRE](#))
- Commission de programme - Bachelier en sciences de l'ingénieur, orientation bioingénieur ([CBIR](#))
- Commission de programme interfacultaire en Sciences et gestion de l'environnement ([ENVI](#))
- Fermes universitaires de Louvain ([FERM](#))

Academic supervisor: [Patrick Gerin](https://uclouvain.be/repertoires/patrick.gerin) (<https://uclouvain.be/repertoires/patrick.gerin>)

Jury

- Président de jury: [Quentin Ponette](https://uclouvain.be/repertoires/quentin.ponette) (<https://uclouvain.be/repertoires/quentin.ponette>)

Useful Contact(s)

- Conseiller aux études: [Patrick Gerin](https://uclouvain.be/repertoires/patrick.gerin) (<https://uclouvain.be/repertoires/patrick.gerin>)

