

ENVI2M - Introduction

ENVI2M - Teaching profile

Learning outcomes

The Masters in Environmental Sciences and Management is offered as a priority to students who have completed a Masters level course of study at one of the faculties in the science and technology sector, human sciences sector or health sciences sector, or at a college of further education. The admission requirements are those of an advanced Masters.

Teaching on environmental sciences and management offers both graduate students and professionals the opportunity to learn about the basic principles of environmental sciences and the management of environmental problems that are complex by nature and involve several disciplines.

The student programme is partially tailored to suit their initial training. Part of the programme is aimed at allowing them to acquire basic knowledge in the various disciplines involved in environmental issues, in science and technology (chemistry, biology, ecology, IT, mathematics, statistics, geography...) and in human sciences (sociology, law, economics, philosophy...). Part of the programme is intended to address environmental issues through various disciplines (economics, law, politics, toxicology, science and technology). Finally, part of the programme is designed to develop the ability to approach environmental issues across disciplines, integrating their respective contributions (multidisciplinary approach) and to identify and negotiate consensual solutions with the different stakeholders.

Upon completion of the programme, the Master of Environmental Sciences and Management will be able to take a mediating role, alone or within a team, to resolve environmental issues: to gain an understanding of the problem and to analyse it as a whole, to summarise the positions of the various stakeholders, including experts, to communicate these comprehensibly to all parties, to develop and propose consensual solutions, to argue and negotiate with 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 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, mathematics, statistics, geography, etc. related to the environmental issue.
 - 1.4 To use basic theoretical concepts in the 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 these into the analysis.
 - 1.6 To establish links between the basic concepts in science and technology and the humanities to 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, factoring in the technological and non-technological aspects.
 - 2.1 To summarise different 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 for solutions to the environmental issue with the support of stakeholders, by combining the data and scientific, technical / technological and non-technical methods available.
 - 2.4 To select proposals for solutions in a substantiated way (self-evaluation) that best fulfil the different dimensions of the environmental issue (scientific, technical / technological and non-technical).
 - 2.5 To identify with different stakeholders and, in relation to 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 verbally and in writing, in a substantiated manner using modern communication techniques.
 - 3.2 To adapt their language and vocabulary specifically taking the cultural differences of the conversational partners into consideration: colleagues, general public, scientific experts, non-governmental organisations, public authorities, businesses, etc.
4. To negotiate a consensual solution between environmental 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.

o Activités communes obligatoires*Pour 53 crédits minimum :*

<input type="radio"/> LENVI2199	Work placement	Dimitri Lederer	FB [q1 or q2] [15h] [30 Credits]		X
<input type="radio"/> LENVI2099	Projet personnel de fin d'études		FB [q1+q2] [] [15 Credits]		X
<input type="radio"/> LESPO2103	Environment and Global Economy	Bert Willems	FB [q2] [30h] [5 Credits]		X

o Une activité au choix parmi les intitulés suivants :

<input checked="" type="checkbox"/> LB RTE2201	Human and environmental toxicology	Cathy Debier	FB [q1] [30h+7.5h] [5 Credits]		
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Year

⌘ LDVLP2320	Anthropology of development and environment	Aurore Vermylen (compensates Emmanuelle Piccoli)	PR [q1] [30h] [5 Credits]	1	2
				x	x

⌘ Philosophie des sciences de la nature: une activité au choix parmi les intitulés suivants:

⌘ LFILO2003E	Ethics in the Sciences and technics (sem)	Alexandre Guay (compensates Charles Pence) Hervé Jeanmart René Rezsóhazy	PR [q2] [15h+15h] [2 Credits]	1	2
				x	x

PROFESSIONAL FOCUS [30.0]

Un coeur de formation interdisciplinaire, spécifique et original (Finalité spécialisée) Un ensemble de cours, dédiés aux sciences environnementales et aux approches interdisciplinaires de gestion des problématiques environnementales et du développement durable. Ces cours sont rassemblés dans le tronc commun obligatoire et dans la finalité spécialisée. Un stage réalisé en milieu professionnel, à l'extérieur de l'université, amenant les étudiants à mettre en pratique leur formation théorique dans des situations

OPTIONS

Une option et/ou un ensemble de cours au choix (Options)




L'étudiant dispose d'une grande liberté pour compléter le cœur de sa formation (voir TC et FS) par le choix des cours qui l'intéressent dans un ensemble de cours facultatifs du tronc commun et de cours proposés au sein de différentes options. Il est possible de panacher un programme de cours parmi ces options. Il est cependant nécessaire de prendre au moins 15 crédits d'activités dans une seule et même option pour que celle-ci figure dans le supplément au diplôme. Dans le cas contraire, aucune référence à une option ne sera mentionnée dans le supplément au diplôme, qui indiquera simplement la liste des cours au choix qui ont été suivis.

- > [Option 1 : Industry and Environment](#) [en-prog-2024-envi2m-lenvi201o]
- > [Option 2 : Agriculture and Environment](#) [en-prog-2024-envi2m-lenvi202o]
- > [Option 3: Land Development and Environnement](#) [en-prog-2024-envi2m-lenvi203o]
- > [Option 4: Public Administration and Environment](#) [en-prog-2024-envi2m-lenvi204o]
- > [Optional Courses](#) [en-prog-2024-envi2m-lenvi206o]

OPTION 1 : INDUSTRY AND ENVIRONMENT

⌘ **Activité en climat: état, pression et réponses**

Le cours PHY2153 peut également être suivi en partie pour 3 crédits.

⌘ LPHYS2162	Introduction to the physics of the climate system and its modelling	Hugues Goosse Francesco Ragone	EN [q1] [22.5h+22.5h] [5 Credits]  > French-friendly	X	X
⌘ LENVI2005	Climate change: impacts and solutions		EX [q2] [30h] [3 Credits] 	X	X
⌘ LBIR1328A	Climatology and hydrology applied to agronomy and the environment - partim A (2 ECTS)	Alice Alonso (compensates Charles Bielders) Alice Alonso (compensates Mamik Vanclooster) Hugues Goosse	EN [q1] [22.5h] [2 Credits]  > French-friendly	X	X

OPTION 2 : AGRICULTURE AND ENVIRONMENT

- Mandatory
- ✘ Optional
- △ Not offered in 2024-2025
- Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🌐 Not open to incoming exchange students
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

[Click on the course title to see detailed informations \(objectives, methods, evaluation...\)](#)

From 15 to 30credit(s)

Year

1 2

ENVI2M - Information

Access Requirements

Master course admission requirements are defined by the French Community of Belgium Decree of 7 November 2013 defining the higher education landscape and the academic organisation of courses.

General and specific admission requirements for this programme must be satisfied at the time of enrolling at the university.

Unless explicitly mentioned, the bachelor's, master's and licentiate degrees listed in this table or 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

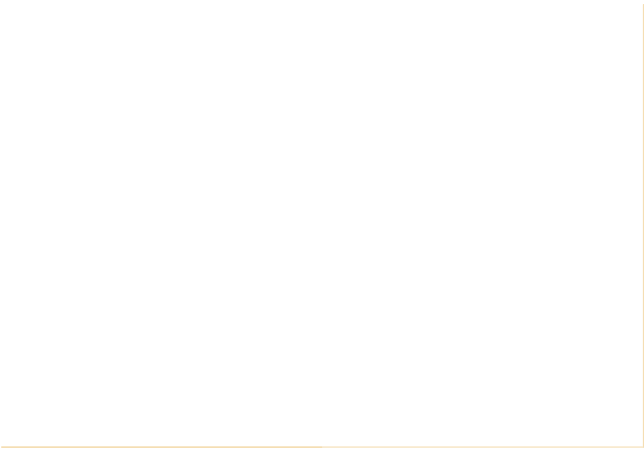
- > [General access requirements](#)
- > [Specific access requirements](#)
- > [University Bachelors](#)
- > [Non university Bachelors](#)
- > [Holders of a 2nd cycle University degree](#)
- > [Holders of a non-University 2nd cycle degree](#)
- > [Access based on validation of professional experience](#)
- > [Access based on application](#)
- > [Admission and Enrolment Procedures for general registration](#)

Specific access requirements

L'étudiant doit avoir obtenu au moins 70% des points ou une mention équivalente lors de l'obtention du diplôme qui lui permet d'accéder au master. En outre, son dossier de candidature sera soumis à l'approbation de la commission de gestion du programme.

University Bachelors

Diploma	Special Requirements	Access	Remarks
UCLouvain Bachelors			



Academic supervisor: [Patrick Gerin](#)

Jury

- Président de jury: [Charles Bielders](#)

Useful Contact(s)

- Conseiller aux études: [Patrick Gerin](#)

