

- 8.4. Concevoir des solutions dans le domaine de la gestion des ressources et de l'aménagement du territoire.
- 8.5 Tester les solutions et évaluer les impacts suivant des objectifs de développement durable.
9. Mobiliser les compétences nécessaires pour réaliser un travail de recherche en climatologie.
- 9.1. Comprendre la dynamique de l'atmosphère, de l'océan, et du système climatologique dans son ensemble.
- 9.2. Appréhender les techniques de modélisation du climat, en couvrant les aspects théoriques et techniques.
- 9.3. Savoir analyser et interpréter des données climatiques.
- 9.4. Mener une analyse critique sur des questions liées aux changements climatiques (passés et futurs) et en comprendre et anticiper les impacts sur la société et l'environnement de façon à devenir un acteur responsable dans le monde d'aujourd'hui.

Programme structure

The programme comprises core subjects of 60 credits, 30 credits for the focus and 30 credits for optional subjects.

CLIM2M Programme

Detailed programme by subject

CORE COURSES [90.0]

- Mandatory
 - ✘ Optional
 - △ Not offered in 2023-2024
 - ⊙ Not offered in 2023-2024 but offered the following year
 - ⊕ Offered in 2023-2024 but not the following year
 - △ ⊕ Not offered in 2023-2024 or the following year
 - Activity with requisites
 - 🌐 Open to incoming exchange students
 - 🚫 Not open to incoming exchange students
-

				Year	
				1	2
⌘ LFILO2003E	Ethics in the Sciences and technics (sem)	Alexandre Guay (compensates Charles Pence) Hervé Jeanmart René Rezsöházy	EX [q2] [15h+15h] [2 Credits] 🌐	x	x
⌘ LTHEO2840	Science and Christian faith	Benoît Bourguine Paulo Jorge Dos Santos Rodrigues	EX [q1] [15h] [2 Credits] 🌐	x	x

o Mémoire (30 credits)

o

RESEARCH FOCUS [30.0]

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊙ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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...)

Year

1 2

o Content:**o Terrain en géographie (4 credits)**

L'étudiant-e choisit au moins un terrain parmi :

⊗ LCLIM2170	Field in climatology 1	Veerle Vanacker	FR [q2] [60h+30h] [4 Credits] ⊕ 🌐 > English-friendly	X	X
⊗ LCLIM2270	Field in climatology 2	Bas van Wesemael	FR [q2] [60h+30h] [4 Credits] ⊙ 🌐	X	X
○ LPHYS2163	Atmosphere and ocean : physics and dynamics	Thierry Fichefet François Massonnet	EN [q1] [52.5h+7.5h] [10 Credits] 🌐 > French-friendly	X	
○ LGEO2290	Travaux dirigés de modélisation climatique	Pierre-Yves Barriat Qiuzhen Yin	FR [q1] [15h] [2 Credits] 🌐	X	
○ 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	

o Cours au choix

L'étudiant-e choisit 9 crédits (5 crédits si l'étudiant a suivi LCLIM 2170 et 2270) dans la liste ci-dessous :

⊗ LENVI2005	Climate change: impacts and solutions	Michel Crucifix Pierre Delmelle (coord.) Kristof Van Oost	FR [q2] [30h] [3 Credits] 🌐	X	X
⊗ LCLIM2010	Modélisation du climat: Atmosphère (modèle MAR) (ULG - CLIM0017-2 - Partim 1) ■				

Optional courses

OPTIONAL COURSES

- Mandatory
- ✂ Optional
- △ Not offered in 2023-2024
- ⊙ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 \(objectives, methods, evaluation...\)](#)

These credits are not counted within the 120 required credits.

Year



CLIM2M - 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

In addition to the access conditions described below, candidates will have to provide proof of a sufficient command of the French language (level B1 of the CEFR, Common European Framework of Reference for Languages).

Students who wish to be admitted on the basis of a dossier (see tables below) are invited to consult the [criteria for the evaluation of application](#). **University Bachelors**

Diploma	Access	Remarks
BA en agronomie, orientation agro-industries et biotechnologies - crédits supplémentaires entre 45 et 60 BA en agronomie, orientation agronomie des régions chaudes - crédits supplémentaires entre 45 et 60 BA en agronomie, orientation environnement - crédits supplémentaires entre 45 et 60 BA en agronomie, orientation forêt et nature - crédits supplémentaires entre 45 et 60 BA en agronomie, orientation techniques et gestion agricoles - crédits supplémentaires entre 45 et 60 BA en agronomie, orientation techniques et gestion horticolas - crédits supplémentaires entre 45 et 60 BA en agronomie, orientation technologie animalière - crédits supplémentaires entre 45 et 60	Les enseignements supplémentaires éventuels peuvent être consultés dans le module complémentaire .	Type court

Holders of a 2nd cycle University degree

Diploma	Special Requirements	Access	Remarks
"Licenciés"			
Licence en sciences géographiques		Direct access	Ces étudiants ont directement accès à la deuxième année de master avec éventuellement un programme adapté.
Masters			
Tous les masters		Access with additional training	

Holders of a non-University 2nd cycle degree

Access based on validation of professional experience

> It is possible, under certain conditions, to use one's personal and professional experience to enter a university course without having the required qualifications. However, validation of prior experience does not automatically apply to all courses. Find out more about [Validation of priori experience](#).

Accès selon la procédure de validation des acquis de l'expérience
Consultez le site www.uclouvain.be/vae

Access based on application

Access based on application : access may be granted either directly or on the condition of completing additional courses of a maximum of 60 ECTS credits, or refused.

The first step in the procedure is to submit a file online (see <https://uclouvain.be/en/study/inscriptions/futurs-etudiants.html>).
Students who wish to be admitted on the basis of a dossier are invited to consult the [criteria for the evaluation of application](#).

Admission and Enrolment Procedures for general registration

Teaching method

The teaching strategy takes its inspiration from the idea of "taking responsibility for one's own learning" and offers a wide range of learning situations. The climatologist is at the centre of different scientific fields: physical modeling, teledetection, hydrology and the management of natural resources. The integration between human and physical geography is emphasized. The courses are focused on problems in society: environmental changes, mobility, urbanization, globalization and developing countries. Activities such as seminars and integrated exercises are carried out in advanced areas of geographical research. Ability to use advanced methods of geographical analysis is an important objective of the training: geographical modeling, geographical information systems and satellite teledetection.

Practical work gives students the opportunity of dealing with concrete problems and finding solutions to them, often in small groups. The Master in Climatology is notable for the multidisciplinary background of the teaching staff. Studies will study with lecturers in geography and physics. Activities such as seminars and integrated exercises are designed so that students progressively encounter the complexity of the climatic system. Students in the last year of the Master should therefore be able to use and understand professional climatic modelling systems.

The computer rooms with special software for geographical analysis are always open to students. In the first year of the Master, the field work consists of a week of supervised exercises in the Alps or Spain.

Evaluation

The evaluation methods comply with the regulations concerning studies and exams (<https://uclouvain.be/fr/decouvrir/rgee.html>). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

Students will mainly be assessed on the basis of individual work (e.g. reading, consultation of databases and bibliographic references, writing monographs and reports, presentation of seminars, dissertation and work placement). Where necessary, students will also be assessed on how much they have learned from lectures. As far as possible, there will be continuous assessment, including regular 'open book examinations'. Certain activities will not be given a precise mark but will be officially certified. Assessment of the dissertation is in two stages : a 'progress report' at the end of the first year of the Master and the final presentation.

Mobility and/or Internationalisation outlook

La mobilité des étudiants est fortement encouragée, soit par un échange Erasmus ou Mercator hors Belgique, soit à la KULeuven. Ce séjour se fera durant le 2ème quadrimestre du premier master.

La possibilité sera donnée de suivre des cours en anglais. Ceci permettra non seulement aux étudiants de l'UCL de se familiariser mieux encore avec cette langue, mais aussi aux étudiants Erasmus venant de l'étranger de suivre un semestre de cours en anglais.

Des cours approfondis sont donnés par des professeurs visiteurs venant de diverses Institutions belges mais surtout étrangères. Ces enseignements sont parfois dispensés en anglais.

Possible trainings at the end of the programme

The Master in Geography : Climatology gives direct access to a doctorate in science.

Contacts

Curriculum Management

Entity

Structure entity

Denomination

Faculty

Sector

Acronym

Postal address

SST/SC/GEOG

(GEOG)

Faculty of Science (SC)

Sciences and Technology (SST)

GEOG

Place Louis Pasteur 3 - bte L4.03.07

1348 Louvain-la-Neuve

Tel: +32 (0) 10 47 28 73 - Fax: +32 (0) 10 47 28 77

Website

<https://uclouvain.be/fr/facultes/sc/geo>

Academic supervisor: Marie-Laurence De Keersmaecker (<https://uclouvain.be/repertoires/marie-laurence.dekeersmaecker>)

Jury

- President: Marie-Laurence De Keersmaecker (<https://uclouvain.be/repertoires/marie-laurence.dekeersmaecker>)
- Secretary and Study advisor: Bas van Wesemael (<https://uclouvain.be/repertoires/bas.vanwesemael>)

Useful Contact(s)

- Administrative manager for the student's annual program: Fatuma Tepatondele (<https://uclouvain.be/repertoires/fatuma.tepatondele>)
- Secretary of the School of geography: Catherine De Roy (<https://uclouvain.be/repertoires/catherine.deroy>)

