

At Louvain-la-Neuve - 60 credits - 1 year - Day schedule - In FrenchDissertation/Graduation Project : **YES** - Internship : **NO**Activities in English: **YES** - Activities in other languages : **NO**Activities on other sites : **NO**Main study domain : **Sciences**Organized by: **Faculty of Science (SC)**Programme acronym: **GEOG2M1** - Francophone Certification Framework: 7**Table of contents**

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GEOG2M1 - Introduction

Introduction

GEOG2M1 - Teaching profile

Learning outcomes

The organization of the space in which we live results from the impact of man on his natural surroundings. It comes from a great many decisions, taken long ago or recently, which have shaped our environment by adapting it to our needs, for better and for worse. These decisions have stimulated development and also created imbalances : more productive world agriculture, industrial concentrations, urbanization, trade at every level, increase in average well-being, but also delocalization, pollution, damage to land, deforestation, the greenhouse effect or overpopulation. Geography studies the mechanisms which have led to all these effects, in order to control them better.

The objective of the training is an introduction to the three fundamental aspects of the work of a geographer:

- to observe and describe the environment, especially with computerized databases and advanced satellite observation technology ;
- to understand and explain the processes that have been observed, especially by applying models which enable them to be simulated;
- to learn certain concepts in resource management through land development.

Students will develop skills in the field of geography and especially in the study of the interactions between human activities, geographical space and the natural environment. This is done from the perspective of both human and physical geography: it is important to bring them together. The training also provides students with the geographical techniques necessary for the study of this.

The Master in Geography (60 credits) is clearly different from the 120 credit Master in Geography ; although it only takes a year of study, it is inspired by the same objectives, but aims in a more modest way to build on and refine the geographical training in the bachelor's degree.

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

1. Analyser des problèmes géographiques complexes.
 - 1.1. Définir la question de recherche.
 - 1.2. Identifier les connaissances acquises et à acquérir en vue de répondre à la question de recherche.
 - 1.3. Faire une recherche bibliographique dans le domaine, en français et en anglais.
 - 1.4. Identifier une méthodologie rigoureuse afin de répondre à la question de recherche.
 - 1.5. Choisir la méthode d'analyse des données.
 - 1.6. Synthétiser les résultats.
 - 1.7. Mener à bien un travail de recherche utilisant la méthode d'analyse.
2. Mobiliser des savoirs scientifiques spécialisés dans les domaines de la géographie physique et humaine
 - 2.1. Maitriser et utiliser, dans le domaine de la géographie physique :
 - La géomorphologie tectonique
 - La géomorphologie expérimentale
 - La géomorphologie appliquée
 - La biogéographie
 - La géologie et les sciences de la terre
 - 2.2. Maitriser et utiliser, dans le domaine de la géographie humaine :
 - La géographie urbaine
 - La géographie des transports
 - La géographie économique
 - La géographie rurale
 - L'économie spatiale et régionale
 - La géographie médicale et de la santé
 - Les interactions entre la mondialisation et l'environnement
3. Structurer le territoire à partir de la combinaison de différents types de données géographiques et statistiques.
 - 3.1. Analyser le paysage, dans le cadre de séjours éventuels sur le terrain en Belgique et à l'étranger.
 - 3.2. Modéliser l'organisation du territoire grâce à des bases de données géographiques informatisées.
 - 3.3. Evaluer la pertinence et la fiabilité des sources d'information.
 - 3.4. Combiner les informations issues de l'observation.
4. Comprendre et expliquer l'organisation spatiale des phénomènes naturels, des activités humaines et de leurs interactions.
 - 4.1. Identifier les caractéristiques d'organisation spatiale, les composantes physiques et humaines et la manière avec laquelle elles interagissent.
 - 4.2. Formuler des hypothèses de travail.
 - 4.3. Développer des modèles (statistiques, numériques, conceptuels).
 - 4.4. Tester les hypothèses par l'application, la calibration et la validation.
 - 4.5. Faire preuve de rigueur, de précision et d'esprit critique dans l'interprétation des résultats.
5. Utiliser les techniques pour caractériser et représenter le processus géographique étudié.

- 5.1. Utiliser des méthodes d'analyse statistique.
- 5.2. Interpréter et analyser des données satellitaires.
- 5.3. Manipuler des banques de données spatiales et réaliser des cartes thématiques.
- 5.4. Utiliser des logiciels de traitement de données statistiques.
- 5.5. Porter un regard critique sur les techniques utilisées.
6. Communiquer efficacement des résultats, des méthodes à différents types d'acteurs.
 - 6.1. Communiquer oralement et par écrit en français et en anglais (niveau B2)
 - 6.2. Communiquer les résultats d'un travail à des pairs.
 - 6.3. Communiquer et discuter des données, des méthodes et des résultats.
 - 6.4. Communiquer des résultats par la réalisation de cartes, de schémas et de graphiques.
 - 6.5. Maîtriser les outils informatiques indispensables à la communication.

Programme structure

The programme comprises core subjects of 50 credits and 10 credits for optional activities.

GEOG2M1 Programme

Detailed programme by subject

CORE COURSES [60.0]

- Mandatory
- ⊗ Optional
- △ Not offered in 2026-2027
- ⊖ Not offered in 2026-2027 but offered the following year
- ⊕ Offered in 2026-2027 but not the following year
- △ ⊕ Not offered in 2026-2027 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...)

○ Module 1 : Methods for geographical and spatial analyses (10 credits)

○ LGEO2211	Advanced statistical methods in geography	Christian Hafner	FR [q1] [30h+30h] [5 Credits] 🌐
○ LGEO2185	Advanced geo-processing	Kristof Van Oost	EN [q2] [30h+30h] [5 Credits] 🌐

○ Module 2: Physical geography and global change (10 credits)

○ LGEO2140	Global environmental challenges in the Anthropocene	Kristof Van Oost Veerle Vanacker	EN [q2] [30h+30h] [5 Credits] 🌐
○ LGEO2240	Tectonic geomorphology	Veerle Vanacker	EN [q1] [30h+30h] [5 Credits] ⊕ 🌐

○ Module 3 : Human-environment geography and sustainability (10 credits)

○ LGEO2110	Globalisation, development and environment	Eric Lambin	FR [q1] [30h+30h] [5 Credits] 🌐
○ LGEO2230	Medical and health geography	Sophie Vanwambeke	FR [q1] [30h+30h] [5 Credits] 🌐

o Module 4 : Integration (10 credits)

o LGEO2250	Mesures de terrain en géographie	Kristof Van Oost	FR [q2] [30h+30h] [4 Credits] 🌐
o LGEO2160	Integrated project in sustainability		EN [q1] [30h+30h] [4 Credits] 🌐

⌘ Alternative to the project for even-numbered years

Choose a course from the following for the years in which LGEO2160 is not taught:

⌘ LGEO2130	Fundamentals of geographic and environmental modelling	Eric Deleersnijder Sophie Vanwambeke	EN [q2] [30h+30h] [5 Credits] 🌐
⌘ LGEO2210	Shaping sustainable urban areas	Erasmus Zu Ermgassen	FR [q1] [30h] [4 Credits] 🌐 > English-friendly
⌘ LGEO2220	History of geography	Eric Lambin	FR [q1] [22.5h] [4 Credits] 🌐

o Philosophie (2 credits)

Choose one of the following teaching units :

⌘ LSC2001	Introduction to contemporary philosophy	Peter Verdée	FR [q2] [30h] [2 Credits] 🌐
⌘ LSC2220	Philosophy of science	Alexandre Guay	EN [q2] [30h] [2 Credits] 🌐
⌘ LFILO2003E	Ethics in the Sciences and technics (sem)	Alexandre Guay René Rezsöházy	FR [q2] [15h+15h] [2 Credits] 🌐
⌘ LTHEO2840	Science and Christian faith	Paulo Jorge Dos Santos Rodrigues	FR [q1] [15h] [2 Credits] 🌐

o Terrain en géographie

⌘ LGEO2170	Field Excursion	Eric Lambin	FR [q2] [60h+30h] [5 Credits] 🌐
⌘ LGEO2270	Terrain II en géographie	Erasmus Zu Ermgassen	FR [q2] [60h+30h] [5 Credits] 🌐
o LGEO2995	Mémoire		FR [q2] [] [15 Credits] 🌐

Supplementary classes

To access this Master, students must have a good command of certain subjects. If this is not the case, in the first annual block of their Masters programme, students must take supplementary classes chosen by the faculty to satisfy course prerequisites.

- Mandatory
- ⊗ Optional
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- △ ⊕ Not offered in 2026-2027 or the following year
- Activity with requisites
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Click on the course title to see detailed informations (objectives, methods, evaluation...)

o Enseignements supplémentaires

⊗ LGEO1321	Geography of rural areas: land use, environment, nature	Patrick Meyfroidt	FR [q2] [30h+15h] [5 Credits] 🌐 > English-friendly
⊗ LGEO1322	Geography of urban spaces and flows	Gauthier Blicq	FR [q1] [30h+15h] [5 Credits] 🌐
⊗ LGEO1323	Economic geography	Justin Delloye	FR [q1] [30h+15h] [5 Credits] 🌐
⊗ LGEO1331	Geomorphology	Kristof Van Oost	FR [q2] [30h+30h] [5 Credits] 🌐
⊗ LGEO1341	Statistical analysis in geography	Erasmus Zu Ermgassen	FR [q1] [30h+30h] [5 Credits] 🌐
⊗ LGEO1342	Geographical Information Systems (GIS)	Sophie Vanwambeke	FR [q1] [30h+30h] [5 Credits] 🌐
⊗ LGEO1343	Earth observation by satellite	Raphaël Rousseau	FR [q1] [30h+30h] [5 Credits] 🌐
⊗ LGEO1251	Earth's history	Veerle Vanacker	FR [q2] [30h+60h] [6 Credits] 🌐 > English-friendly
⊗ LCHM1112	General Chemistry	Yaroslav Filinchuk	FR [q1] [30h+22.5h] [5 Credits] 🌐
⊗ LGEO1232	The climate and its changes	Michel Crucifix Kristof Van Oost	FR [q2] [30h] [5 Credits] 🌐
⊗ LMAT1101	Mathematics 1	Pedro Dos Santos Santana Forte Vaz	FR [q1] [30h+20h] [4 Credits] 🌐
⊗ LMAT1102	Mathematics 2	Augusto Ponce	FR [q2] [30h+30h] [4 Credits] 🌐
⊗ LPHY1101	Physics 1	Michel Crucifix Thierry Fichet	FR [q1] [32h+46h] [6 Credits] 🌐
⊗ LPHY1102	Physics 2	Vincent Lemaitre	FR [q2] [54h+36h] [7 Credits] 🌐
⊗ LBIO1110	Life : diversity and evolution	Patrick Dumont François Renoz	FR [q1] [30h+10h] [4 Credits] 🌐
⊗ LBIO1117	Ecology I	Renate Wesselingh	FR [q2] [30h+10h] [4 Credits] 🌐

The programme's courses and learning outcomes

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.

GEOG2M1 - 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

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- > [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).

University Bachelors

Diploma	Special Requirements	Access	Remarks
UCLouvain Bachelors			
Bachelor in Geography : General		Direct access	
Bachelor in Physics	Si l'étudiant a suivi la Titre inconnu:Imingeo	Direct access	In some cases, the UCLouvain Enrolment Office, after reviewing their online enrolment or re-enrolment application, will ask the students concerned to provide an enrolment authorisation from the faculty/ school.
Bachelor in Engineering	Si l'étudiant a suivi la Titre inconnu:Imingeo	Direct access	In some cases, the UCLouvain Enrolment Office, after reviewing their online enrolment or re-enrolment application, will ask the students concerned to provide an enrolment authorisation from the faculty/ school.
Others Bachelors of the French speaking Community of Belgium			
		Direct access	
Bachelors of the Dutch speaking Community of Belgium			
		Direct access	
Foreign Bachelors			
		Access based on application	

Non university Bachelors

> Find out more about [links](#) to the university

Diploma	Access	Remarks
BA en agronomie, orientation agro-industries et biotechnologies - crédits supplémentaires entre 45 et 60	Les enseignements supplémentaires éventuels peuvent être consultés dans le module complémentaire .	Type court
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 systèmes alimentaires durables et locaux - 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 horticoles - crédits supplémentaires entre 45 et 60		
BA en agronomie, orientation technologie animale - crédits supplémentaires entre 45 et 60		

Holders of a 2nd cycle University degree

Diploma	Special Requirements	Access	Remarks
"Licenciés"		-	
Masters		-	

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](#).

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 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 computer rooms with special software for geographical analysis are always open to students. The Master includes at least a week of field work abroad (since the 60 credit course lasts only a year).

Evaluation

The evaluation methods comply with the [Academic regulations and procedures](#). 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.

Possible trainings at the end of the programme

The only university training directly accessible from the 60 credit Master in Geography is teacher training (30 credits).

It is also possible, in one year, to gain the 120 credit Master in Geography. This gives access to doctorates and Advanced Masters. Students' attention is drawn to the fact that this progression will require the submission of two dissertations.

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

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

Website

Academic supervisor: [Sophie Vanwambeke](#)

Jury

- President: [Thierry Fichet](#)
- Secretary: [Erasmus Zu Ermgassen](#)
- Study advisor: [Patrick Meyfroidt](#)

Useful Contact(s)

- Administrative manager for the student's annual program: [Catherine De Roy](#)

