UCLouvain

SAIV2M

2021 - 2022

Master [120] in Agriculture and Bio-industries

At Louvain-la-Neuve - 120 credits - 2 years - Day schedule - In French
Dissertation/Graduation Project : **YES** - Internship : **NO**
Activities in English: **YES** - Activities in other languages : **NO**
Activities on other sites : **NO**
Main study domain : **Sciences agronomiques et ingénierie biologique**
Organized by: **Faculty of bioscience engineering (AGRO)**
Programme acronym: **SAIV2M** - Francophone Certification Framework: 7

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SAIV2M - Introduction

Introduction

Introduction

Master [120] in Agriculture and Bio-industries develops

- the ability to analyze and diagnose agronomic problems

- ability to understand multi-scale and multi-disciplinary processes

- the ability to manage integrated projects in dialogue with other specialists.

It trains graduates who are able to critically mobilize a body of knowledge and know-how in agronomic and economic sciences to formulate, analyze and solve a multidisciplinary problem in these fields.

At the end of this Master's degree, you will be able to design relevant and innovative technological and scientific solutions for the development of products, process systems or services in this field of specialization.

Your profile

This **Master's programme** is for you if you are interested in:

· the relevance, diversity and career opportunities contained in this Master's programme,

· the international feature of the programme, attracting students with diverse backgrounds from all over the world and preparing professionals for a future global job market,

· the opportunity to study in two different partner universities in two European countries and, for the program AFEPA, acquire a double or joint Master's degree.

Your future job

Graduates from this Master's programme are well qualified to take responsibilities in international, national and regional agencies, non-governmental organisations, consultancy firms, professional organisations and private companies with a focus in policy design, analysis and implementation. Because of the research orientation of this Master's programme, they are also well prepared for doctoral studies.

Your programme

This Master's programme is structured in four blocks of teaching and learning activities totalling 120 ECTS credits.

It offers basic knowledge and skills and options to choose from at UCL or at a partner university.

Two professional focus are possible:

- Professional focus in soil sciences (MISOL)

- Professional focus: Agricultural, Food and Environmental Analysis (AFEPA)

The MISSOL program is an international master's degree initiated by Sorbonne Universities. It is designed to allow you to spend an exchange year in one of the 3 partner universities:

- University Antananarivo (Madagascar)

- University Nangui Abrogoua, Abidjan (Côte d'Ivoire)

- University science and technology, Hanoï (Vietnam).

If you are selected, this exchange can be funded by an Erasmus + grant.

Structure of the program MISSOL

1. A core set of compulsory learning activities for 40 ECTS credits (Master's thesis, two summer schools)
2. A professional focus of compulsory courses for 30 ECTS credits
3. 50 ECTS credits to be chosen in a list of courses

The AFEPA program is an international master's degree which involves different universities:
The main partner universities are:
- Università Cattolica del Sacro Cuore (UCSC) in Milano, Italy
- Rheinische Friedrich-Wilhelms-Universität (UBonn) in Bonn, Germany
- Swedish University of Agricultural Sciences (SLU) in Uppsala, Sweden
- Université catholique de Louvain (UCLouvain) in Louvain-la-neuve, Belgium

The following universities are associated with the program:
- Pontificia Universidad Católica (PUC) in Santiago, Chile
- University of Alberta (UAlberta) in Edmonton, Canada
- Universitat Politecnica de Catalunya (UPC) in Barcelona, Spain
- African Economic Research Consortium (AERC) in Nairobi, Kenya

If you are selected, this exchange can be funded by an Erasmus + grant.

Structure of the program AFEPA

1. A core set of compulsory learning activities for 40 ECTS credits (Master's thesis, two summer schools)

2. A professional focus of compulsory courses for 30 ECTS credits (microeconomic theory, agricultural and trade policy, quantitative methods)

3. An option with optional courses for 30 ECTS credits that can be grouped into five subject areas:

   i. agri-food and trade policy (at UCL and partner universities)

   ii. development policy at UCL (at UCL and partner universities)

   iii. environmental and natural resource policy (at partner universities)

   iv. agribusiness and market analysis (at partner universities)

   v. market and consumer research (at partner universities)

4. A set of supplementary courses, including a language course, for 20 ECTS credits.

The language of instruction and examination is English for all the courses at SLU, UAlberta, UBonn and UCSC, and for most of the courses at UCL and UPC, but in Spanish for most of the courses at PUC. Examination can be organized in English at all partners.

SAIV2M - Teaching profile

Learning outcomes

By the end of this Master's programme, the graduate student is:

1. aware of the economic, social and environmental dimensions of the performance and competitiveness of the agricultural and food sectors and other profit (market) and non-profit (non-market) activities in rural areas,
2. able to understand the fundamentals of recent economic theory as well as its strengths and weaknesses,
3. able to use and apply adequate methods and tools to address and analyse socio-economic and environmental problems that are observed or anticipated in the agricultural and food sectors and rural areas in different development contexts,
4. able to use complementary approaches from other disciplines when needed,
5. able to perform sound quantitative economic analysis and anticipate possible effects of policy and regulation reforms,
6. able to interpret results and derive policy implications and recommendations,
7. able to draw from European experience and expertise in designing and evaluating policy and regulatory reforms given the economic, social, environmental and ethical dimensions of the issues facing societies expressing structural change, and
8. able to communicate their methods and results to both specialised and non-specialised audiences, in at least two European languages.

The main objective of this Master's programme is that graduates be qualified to use and apply adequate methods to analyse socio-economic problems, formulate policy recommendations and understand the risks and consequences of any given economic policy measures, especially those oriented to the agricultural and food sector, rural areas as well as natural resources and their environment. In particular, graduates are expected to be able to use and develop quantitative methods to perform rigorous socio-economic and environmental assessments of these public policies, and provide sound and relevant policy recommendations to a better sustainable development of rural areas.

Programme structure

Le programme est formé par :

- le tronc commun (dont le contenu varie en cas de participation au programme AFEPA)
- la finalité spécialisée (dont le contenu varie en cas de participation au programme AFEPA)
- une filière à choisir parmi 6 et comprenant une option et son ou ses complément(s) d'option
- un complément d'option interdisciplinaire en création d'entreprise accessible quelle que soit l'option
- la possibilité de faire un stage d'insertion socio-professionnelle.

*La participation au programme **Erasmus Mundus interuniversitaire AFEPA** (***Agricultural, Food and Environmental Policy Analysis***) fait également l'objet d'une sélection.

SAIV2M Programme

Detailed programme by subject

CORE COURSES [40.0]

- Mandatory
- Optional
- Not offered in 2021-2022
- Not offered in 2021-2022 but offered the following year
- Offered in 2021-2022 but not the following year
- Not offered in 2021-2022 or the following year
- Activity with requisites
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

				Year 1	Year 2
LSAIV2200	Masters thesis		FR [q1+q2] [] [27 Credits]		x

Master thesis (3 credits)

L'étudiant choisira LBIRA2210 pour la finalité AFEPA et LBIRE2210 pour les finalités MISSOL et GEM.

LBIRA2210	Master thesis' accompanying seminar	Philippe Baret Pierre Bertin (coord.) Cathy Debier Frédéric Gaspart Anne Legrève	EN [q1+q2] [30h] [3 Credits]	x	x
LBIRE2210	Master thesis' accompanying seminar	Charles Bielders Patrick Bogaert (coord.) Sophie Opfergelt (compensates Pierre Delmelle) Caroline Vincke	EN [q1+q2] [30h] [3 Credits]	x	x

Activités pour la finalité Agricultural, Food and Environmental Policy Analysis (AFEPA)

LBRAI2218	Special Topics in Agricultural Economics	Frédéric Gaspart Goedele Van den Broeck (coord.)	EN [q2] [30h+22.5h] [5 Credits]		x

Free choice of courses for 5 credits.

Activités pour la finalité Sciences du sol (MISOL)

Free choice of courses for 10 credits.

Activités pour la finalité "GISciences and EO for Environmental Modelling and Management (GEM)"

From 0 to 0credit(s)

Activities for applied geospatial science (GEM) (10 credits)

Students who take the "Land Use System" option will take 10 courses for 10 credits. Students who follow the "Food secrurity" option, will register for the internship for 10 credits (LBIR2000)

From 10 to 10credit(s)

Les étudiants qui suivent l'option "Food secrurity", s'inscriront au stage pour 10 crédits (10 credits)

From 10 to 10credit(s)

LIST OF FOCUSES

> Professional Focus: Agricultural, Food and Environmental Policy Analysis *[en-prog-2021-saiv2m-lsaiv220s]*
> Professional Focus: Soil Science *[en-prog-2021-saiv2m-lsaiv210s]*
> Professional Focus: Geo-Information Science and Earth Observation for Environmental Modelling and Management *[en-prog-2021-saiv2m-lsaiv230s]*

PROFESSIONAL FOCUS: AGRICULTURAL, FOOD AND ENVIRONMENTAL POLICY ANALYSIS [30.0]

- Mandatory
- Optional
- Not offered in 2021-2022
- Not offered in 2021-2022 but offered the following year
- Offered in 2021-2022 but not the following year
- Not offered in 2021-2022 or the following year
- Activity with requisites
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

Content:

				Year 1	Year 2
LBRAI2208	Firms and Markets : Strategic Analysis	Frédéric Gaspart	EN [q1] [30h] [5 Credits]	x	
LECON2353	Labour Productivity	Vincent Vandenberghe	EN [q2] [30h] [5 Credits]	x	
LECON2411	Norms and Public Interventionng	François Maniquet	EN [q2] [30h] [5 Credits]	x	
LECON2607	Public Economics	Jean Hindriks	EN [q2] [30h] [5 Credits]	x	

One course to be chosen amongst the suggested list:

LBIRA2110B	Applied Econometrics	Xavier Draye Frédéric Gaspart Bernadette Govaerts	FR [q1] [27.5h+7.5h] [3 Credits]	x	
LECGE1316	Econometrics	Michel Beine (compensates Muriel Dejemeppe)	FR [q1] [30h+15h] [5 Credits]	x	
LECON2033	Applied econometrics: Microeconometrics	Bertrand Verheyden (compensates Muriel Dejemeppe)	FR [q1] [30h+12h] [5 Credits]	x	
LINGE1221	Econometrics	Sébastien Van Bellegem	FR [q2] [30h+15h] [5 Credits]	x	

One course to be chosen amongst the suggested list:

LECON2041	International Trade	Gonzague Vannoorenberghe	EN [q2] [30h] [5 Credits]	x	
LECON2865	Trade Policy and International Cooperation - UNamur		EN [q2] [30h] [5 Credits]	x	

PROFESSIONAL FOCUS: SOIL SCIENCE [30.0]

- Mandatory
- Optional
- Not offered in 2021-2022
- Not offered in 2021-2022 but offered the following year
- Offered in 2021-2022 but not the following year
- Not offered in 2021-2022 or the following year
- Activity with requisites
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

Content:

				Year 1	Year 2
LBIRE2102	Applied Geomatic	Pierre Defourny	FR [q1] [30h+22.5h] [4 Credits]	x	x
LBIRE2104	Applied soil sciences	Yannick Agnan Pierre Delmelle (coord.) Brieuc Hardy (compensates Pierre Delmelle)	FR [q1] [22.5h+22.5h] [5 Credits]	x	x
LBRES2102	Engineering of the water and the pollutants in grounds and groundwaters	Marnik Vanclooster	FR [q2] [22.5h+22.5h] [4 Credits]	x	x
LBRES2103	Soil physics applied to Agronomy and Environment	Charles Bielders (coord.) Mathieu Javaux	FR [q1] [30h+15h] [4 Credits]	x	x
LBRES2105	Soil erosion and conservation	Charles Bielders	EN [q2] [22.5h+22.5h] [4 Credits]	x	x
LBRES2203	Soil management and planning in warm regions	Charles Bielders (coord.) Bruno Delvaux	FR [q2] [22.5h+7.5h] [3 Credits]	x	x
LBRES2218	Séminaires professionnels en gestion des ressources en eau et sol et technologies environnementales + excursions	Charles Bielders Marnik Vanclooster (coord.)	FR [q1+q2] [22.5h+15h] [3 Credits]	x	x
LBRTI2101A	Data Science in bioscience engineering	Patrick Bogaert Emmanuel Hanert	FR [q1] [22.5h+15h] [3 Credits]	x	x

PROFESSIONAL FOCUS: GEO-INFORMATION SCIENCE AND EARTH OBSERVATION FOR ENVIRONMENTAL MODELLING AND MANAGEMENT [30.0]

OPTIONS [50.0]

Les étudiants ont le choix entre 6 filières composées chacune d'une option suivie obligatoirement d'un ou des complément(s) d'option s'y rapportant.

Les étudiants qui souhaitent suivre la formation interdisciplinaire en Création d'entreprise (CPME) (https://uclouvain.be/cpme) doivent s'y inscrire en même temps dès l'entrée dans le cycle de master. Ce programme remplacera alors le complément d'option de la filière que l'étudiant a choisi.

Attention: l'inscription à cette formation fait l'objet d'une sélection qui a lieu au moment de la rentrée académique. Une fois sélectionnés, les étudiants prendront contact avec le vice-doyen pour aménager leur programme de cours personnel et répartir les cours CPME sur les deux années du cycle.

Pour la filière **Erasmus Mundus interuniversitaire AFEPA** (***Agricultural, Food and Environmental Policy Analysis***), la participation à ce programme fait également l'objet d'une sélection dont les modalités sont décrites à la page suivante: www.uclouvain.be/afepa

> Agricultural, Food and Environmental Policy Analysis *[en-prog-2021-saiv2m-lbira923o]*
> Courses AFEPA to be chosen amongst the following list *[en-prog-2021-saiv2m-lbira935o]*
> Courses MISSOL *[en-prog-2021-saiv2m-lsaiv936o]*
> Land use system or Food security (Option GEM) *[en-prog-2021-saiv2m-lsaiv937o]*

AGRICULTURAL, FOOD AND ENVIRONMENTAL POLICY ANALYSIS [30.0]

- Mandatory
- Optional
- Not offered in 2021-2022
- Not offered in 2021-2022 but offered the following year
- Offered in 2021-2022 but not the following year
- Not offered in 2021-2022 or the following year
- Activity with requisites
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

Content:

				Year 1	Year 2
LBIRA2105	Agricultural and rural policies	Bruno Henry de Frahan	EN [q1] [30h] [3 Credits]	x	
LBIRE2205A	Decision tools and project management - Decision tools	Frédéric Gaspart	EN [q1] [22.5h+7.5h] [3 Credits]	x	
LBRAI2213	Impact evaluation in agriculture	Goedele Van den Broeck	EN [q2] [30h+8h] [4 Credits]	x	

Courses to be chosen for 20 credits amongst the following list:

LBIR1362	Environmental Economics	Frédéric Gaspart	FR [q2] [30h+7.5h] [4 Credits]	x	
LBIRA2109	Agrarian systems and farm	Pierre Bertin	FR [q1] [30h+0h] [5 Credits]	x	
LBIRE2102B	APPLIED GEOMATICS	Pierre Defourny	FR [q1] [22.5h+7.5h] [3 Credits]	x	
LBRAI2210	Microeconomics of Development	Frédéric Gaspart	EN [q1] [30h] [3 Credits]	x	
LBRAI2212	Economics of Rural Development	Frédéric Gaspart (coord.) Goedele Van den Broeck	EN [q1] [30h] [3 Credits]	x	
LECON2314	Economic Geography	Joseph Gomes	EN [q2] [30h] [5 Credits]	x	
LECON2828	Development Macroeconomics - UNamur *UNamur course*		EN [q2] [30h] [5 Credits]		x
LGEO2130	Fundamentals of geographic and environmental modelling	Eric Deleersnijder Sophie Vanwambeke	EN [q2] [30h+30h] [5 Credits]	x	

				Year 1	Year 2
LGEO1321	Human and Economic geography 1	Patrick Meyfroidt Sophie Vanwambeke	FW [q2] [22.5h+22.5h] [4 Credits]	x	

COURSES AFEPA TO BE CHOSEN AMONGST THE FOLLOWING LIST [20.0]

- Mandatory
- Optional
- Not offered in 2021-2022
- Not offered in 2021-2022 but offered the following year
- Offered in 2021-2022 but not the following year
- Not offered in 2021-2022 or the following year
- Activity with requisites
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

Content:

Les crédits du stage d'insertion socio-professionnelle varient de 6 à 12 crédits en fonction de la validation par le responsable de programme.

					Year 1	Year 2
LBIR2004A	Masters Internship	Charles Bielders Damien Debecker (coord.) Xavier Draye Anne-Laure Jacquemart	FR [q2] [] [6 Credits]			x
LBIRA2105	Agricultural and rural policies	Bruno Henry de Frahan	EN [q1] [30h] [3 Credits]			x
LBIRA2109	Agrarian systems and farm	Pierre Bertin	FR [q1] [30h+0h] [5 Credits]			x
LBIRE2102B	APPLIED GEOMATICS	Pierre Defourny	FR [q1] [22.5h+7.5h] [3 Credits]			x
LBIRE2205A	Decision tools and project management - Decision tools	Frédéric Gaspart	EN [q1] [22.5h+7.5h] [3 Credits]			x
LBRAI2208	Firms and Markets : Strategic Analysis	Frédéric Gaspart	EN [q1] [30h] [5 Credits]			x
LBRAI2210	Microeconomics of Development	Frédéric Gaspart	EN [q1] [30h] [3 Credits]			x
LBRAI2212	Economics of Rural Development	Frédéric Gaspart (coord.) Goedele Van den Broeck	EN [q1] [30h] [3 Credits]			x
LBRAI2213	Impact evaluation in agriculture	Goedele Van den Broeck	EN [q2] [30h+8h] [4 Credits]			x
LBRES2204	Integrated water management of water resources	François Jonard Marnik Vanclooster (coord.)	FR [q1] [22.5h+22.5h] [5 Credits]			x
LECON2031	Applied Econometrics : Time Series	Francesca Monti	EN [q1] [30h+12h] [5 Credits]			x
LECON2033	Applied econometrics: Microeconometrics	Bertrand Verheyden (compensates Muriel Dejemeppe)	FR [q1] [30h+12h] [5 Credits]			x
LECON2828	Development Macroeconomics - UNamur *UNamur course*		EN [q2] [30h] [5 Credits]			x
LECON2314	Economic Geography	Joseph Gomes	EN [q2] [30h] [5 Credits]			x
LECON2352	Methods for the evaluation of public policies	William Parienté	FR [q1] [30h] [5 Credits]			x
LECON2607	Public Economics	Jean Hindriks	EN [q2] [30h] [5 Credits]			x
LECON2865	Trade Policy and International Cooperation - UNamur		EN [q2] [30h] [5 Credits]			x
LGEO2130	Fundamentals of geographic and environmental modelling	Eric Deleersnijder Sophie Vanwambeke	EN [q2] [30h+30h] [5 Credits]			x

COURSES MISSOL [50.0]

- Mandatory
- Optional
- Not offered in 2021-2022
- Not offered in 2021-2022 but offered the following year
- Offered in 2021-2022 but not the following year
- Not offered in 2021-2022 or the following year
- Activity with requisites
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

Courses to be chosen amongst the following list for 50 credits

				Year 1	Year 2
LANGL2480	English Communication Skills for Bioengineers	Ahmed Adrioueche Maïté Dupont Dominique François Lucille Meyers Hila Peer (compensates Marie Van Reet) Charlotte Peters Adrien Pham (coord.) Anne-Julie Toubeau	EN [q2] [30h] [2 Credits]	x	x
LBIR1328	Climatology and hydrology applied to agronomy and the environment	Alice Alonso (compensates Marnik Vanclooster) Charles Bielders (coord.) Hugues Goosse	EN [q1] [45h+22.5h] [6 Credits]	x	x
LBIR1336	Sciences du sol et excursions intégrées	Yannick Agnan (coord.) Richard Lambert Caroline Vincke	FR [q2] [30h+37.5h] [5 Credits]	x	x
LBIR1362	Environmental Economics	Frédéric Gaspart	FR [q2] [30h+7.5h] [3 Credits]	x	x
LBIRA2105	Agricultural and rural policies	Bruno Henry de Frahan	EN [q1] [30h] [3 Credits]	x	x
LBIRA2109	Agrarian systems and farm	Pierre Bertin	FR [q1] [30h+0h] [5 Credits]	x	x
LBIRE2105	Water - soil - air quality's Evaluation	Henri Halen Philippe Maetz Xavier Rollin (coord.)	FR [q1] [30h+0h] [3 Credits]	x	x
LBIRE2131	Evaluation d'impact environnemental: diagnostic et indicateurs	Charles Bielders (coord.) Pierre Defourny	FR [q2] [22.5h] [3 Credits]	x	x
LBIRE2205A	Decision tools and project management - Decision tools	Frédéric Gaspart	EN [q1] [22.5h+7.5h] [3 Credits]	x	x
LBRAI2210	Microeconomics of Development	Frédéric Gaspart	EN [q1] [30h] [3 Credits]	x	x
LBRAI2212	Economics of Rural Development	Frédéric Gaspart (coord.) Goedele Van den Broeck	EN [q1] [30h] [3 Credits]	x	x
LBRES2101B	Smart technologies for environmental engineering	François Jonard Sébastien Lambot	FR [q1] [22.5h+15h] [3 Credits]	x	x
LBRES2104	IRRIGATION AND DRAINAGE	Mathieu Javaux	FR [q2] [22.5h+22.5h] [4 Credits]	x	x
LBRES2204	Integrated water management of water resources	François Jonard Marnik Vanclooster (coord.)	FR [q1] [22.5h+22.5h] [4 Credits]	x	x
LBRES2206	Advanced Hydrology for Engineers	Mathieu Javaux	EN [q1] [22.5h+15h] [3 Credits]	x	x
LBRTE2101	Applied hydro-biogeochemistry - Applied hydro-biogeochemistry	Pierre Delmelle Patrick Gerin (coord.)	EN [q1] [30h+15h] [4 Credits]	x	x
LECON2828	Development Macroeconomics - UNamur *UNamur course*		EN [q2] [30h] [5 Credits]	x	x
LENVI2005	Changements climatiques: impacts et solutions	Yannick Agnan (compensates Pierre Delmelle) Philippe Marbaix Jean-Pascal van Ypersele de Strihou (coord.)	FR [q2] [30h] [3 Credits]	x	x
LGCIV2073	Hydrogeology and Geoenvironment	Pierre-Yves Bolly	EN [q1] [30h] [3 Credits]	x	x

				Year 1	Year 2
LGEO1321	Human and Economic geography 1	Patrick Meyfroidt Sophie Vanwambeke	FR [q2] [22.5h+22.5h] [4 Credits]	x	x
LGEO2120	Applied geomorphology	Bas van Wesemael	EN [q1] [30h+30h] [5 Credits]	x	x
LSGED2210	Hydrology of Tropical areas	Alice Alonso (compensates Marnik Vanclooster) François Jonard (coord.)	FR [q2] [24h] [2 Credits]	x	x
LSGED2220	Environmental modelling for Developping Countries	Mathieu Javaux	FR [q2] [24h] [2 Credits]	x	x
LSTAT2110A	Analyse des données	Johan Segers	FR [q1] [15h+7.5h] [3 Credits]	x	x

LAND USE SYSTEM OR FOOD SECURITY (OPTION GEM)

Course prerequisites

There are no prerequisites between course units (CUs) for this programme, i.e. the programme activity (course unit, CU) whose learning outcomes are to be certified and the corresponding credits awarded by the jury before registration in another CU.

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.

SAIV2M - Information

Access Requirements

Master course admission requirements are defined by the French Community of Belgium Decree of 7 November 2013 defining the hiher 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.

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

Admission conditions

General and specific admission requirements for this Master's programme must be satisfied at the time of enrolling at UCL:

1. having acquired a Bachelor's degree or an equivalent academic degree of minimum three years of undergraduate study corresponding to 180 ECTS credits;

2. having followed courses in mathematics, statistics and economics at an introductory level is mandatory; having an additional introduction to agricultural, environmental or food sciences is recommended; and

3. proofing English proficiency at the minimum level of B2 of the Common European Framework of Reference for Languages (see www.coe.int/en/web/portfolio).

Applicants not meeting these admission conditions need to follow additional supplementary courses. The modified study programme will be established with the Study Adviser of the Faculty.

The admission to the inter-university AFEPA programme is subject to specific conditions including English proficiency at the minimum level of a TOEFL score of 550 (paper version) or 80 (internet version) or an overall band IELTS score of 6.5 with no sectional score below 5.5 or with a signal deemed equivalent. Notwithstanding these admission criteria, individual partner institutions reserve their right to determine the final admission eligibility of each applicant.

Applicants are requested to respect deadlines for their application. Additional information is provides at

University Bachelors

Diploma	Special Requirements	Access	Remarks
UCLouvain Bachelors			
Bachelier en sciences géographiques	voir www.uclouvain.be/afepa	Access based on application	
Bachelier en sciences économiques	voir www.uclouvain.be/afepa	Access based on application	
BIR1BA	voir www.uclouvain.be/afepa	Access based on application	
Others Bachelors of the French speaking Community of Belgium			
Bachelier en sciences géographiques et/ou environnementales	voir www.uclouvain.be/afepa	Access based on application	
Bachelier en sciences sociales et/ou économiques	voir www.uclouvain.be/afepa	Access based on application	

Bachelier en sciences de l'ingénieur, orientation bioingénieur	voir www.uclouvain.be/afepa	Access based on application
Bachelors of the Dutch speaking Community of Belgium		
Tout grade de bachelier en sciences sociales, économiques, agronomiques, géographiques et/ou environnementales	voir www.uclouvain.be/afepa	Access based on application
Foreign Bachelors		
Tout grade de bachelier en sciences sociales, économiques, agronomiques, géographiques et/ou environnementales	voir www.uclouvain.be/afepa	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 30 et 45 BA en agronomie, orientation agronomie des régions chaudes - crédits supplémentaires entre 30 et 45 BA en agronomie, orientation environnement - crédits supplémentaires entre 30 et 45 BA en agronomie, orientation forêt et nature - crédits supplémentaires entre 30 et 45 BA en agronomie, orientation techniques et gestion agricoles - crédits supplémentaires entre 30 et 45 BA en agronomie, orientation techniques et gestion horticoles - crédits supplémentaires entre 30 et 45 BA en agronomie, orientation technologie animalière - crédits supplémentaires entre 30 et 45 BA en chimie, orientation biochimie - crédits supplémentaires entre 30 et 45 BA en chimie, orientation biotechnologie - crédits supplémentaires entre 30 et 45 BA en chimie, orientation chimie appliquée - crédits supplémentaires entre 30 et 45 BA en chimie, orientation environnement - crédits supplémentaires entre 30 et 45	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"			
Masters			
Tout grade de master en sciences sociales, agronomiques, économiques, géographiques et/ou environnementales	voir www.uclouvain.be/afepa	Access based on application	

Holders of a non-University 2nd cycle degree

Aucune passerelle dans le cas de ce master.

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

Admission on the basis of a submitted dossier may be granted either directly or on the condition of completing additional coursework of a maximum of 60 ECTS credits, or refused.

Admission and Enrolment Procedures for general registration

Tout étuidant postulant à ce master est invité à consulter les pages suivantes https://afepa.eu pour connaitre les dates limites d'inscription à ce programme interuniversitaire.

Pour MISSOL :

En complément à l'information générale reprise ci-dessus, vous devez remplir les conditions supplémentaires suivantes :

1. Ne pas avoir échoué plus d'une fois durant le parcours d'un programme au sein d'une même filière d'étude,

2. Ne pas avoir obtenu (toutes années confondues) une moyenne inférieure à 12/20.

Teaching method

L'interdisciplinarité et ***l'approche intégrée*** sont des dimensions essentielles dans la formation des **bioingénieurs en sciences agronomiques**.

Ces dimensions sont soutenues par :

- l'offre d'enseignements organisés par d'autres Facultés ;
- l'offre d'enseignements en anglais;
- le regroupement d'activités de formation : exercices intégrés, projet intégré, analyses de situations réelles, mises en situation ;
- la perception, l'analyse, le diagnostic et la proposition de cahiers de charges (gestion, conception de nouveaux procédés...) intégrant divers types d'outils (observations de terrain, analyses de laboratoire, bases de données, biométrie, modélisation, simulation...) et diverses échelles d'espace (du moléculaire à la parcelle et à l'exploitation, de la région agricole au sous-continent, et au-delà) et de temps ;
- l'implication d'équipes d'enseignants de compétences et d'expériences complémentaires ;
- la formation et la stimulation au travail en équipe d'étudiants intégrant le développement d'une véritable capacité autonome de travail intellectuel;
- la possibilité de réaliser un stage d'insertion socio-professionnelle.

Une panoplie d'outils didactiques est mise à la disposition des étudiants.

Les laboratoires décentralisés à Michamps et à Chimay et le Centre Alphonse de Marbaix à Corroy-le-Grand où se cotoient des écosystèmes agricoles et naturels.

Des laboratoires de chimie et de physiologie équipés avec des instruments de pointe accueillent les étudiants dans le cadre de travaux pratiques ou de leur mémoire de fin d'études. Plusieurs salles didactiques équipées d'ordinateurs et de logiciels récents permettent à tout moment de travailler sur des outils de gestion de données et de modélisation.

La formation à la recherche et par la recherche, indispensable à l'éveil conceptuel et innovant et à l'apprentissage de la rigueur, est soutenue par diverses activités de formation :

- la réalisation d'un mémoire de fin d'études;
- la participation à des séminaires disciplinaires assurant un contact direct avec des jeunes chercheurs oeuvrant dans le domaine des sciences agronomiques (biologie appliquée et productions agricoles et socio-économie rurale) ;
- la présentation de séminaires par les étudiants au sein du(des) groupe(s) de recherche d'accueil et de réalisation du mémoire.

L'application des compétences, des connaissances et des techniques acquises, et leur utilisation intégrée, est prise en compte dans la réalisation d'un projet intégré en sciences agronomiques. Cette activité importante d'apprentissage complète la réalisation du mémoire auquel la Faculté souhaite conserver le caractère prédominant de formation à la recherche.

En raison de la proximité entre enseignement et recherche, le développement de nouveaux outils et de nouvelles approches fait l'objet de formations avancées dès le second cycle et donc au sein même de ce programme de master (p.ex. la lutte intégrée en protection des cultures, la bioinformatique, l'aide à la décision...).

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 are assessed according to the activities in the programme : this can take the form of written and/or oral examinations as well as individual and/or group work.

Further details about how the assessment is done can be found in the course specifications.

Mobility and/or Internationalisation outlook

The master in Agriculture and Bio-industries is an interuniversity master.

Students registrered in this Master's programme have the possibility to spend a study or research period at other institutions and may be able to integrate their academic credits earned into their academic curriculum at one of these partner institutions.

This master can lead to the issuance of the Master in Agriculture and Bio-industries together with the issuance of a second master from a partner university provided that a sufficient number of credits have been acquired in this university.

The master in Agriculture end Bio-industries develops:

- the ability to analyze agronomic problems

- the ability to understand different processes

- the ability to manage projects with other specialists.

At the end of this master, you will be able to find relevant, innovative and scientific solutions to help the development of products, process systems or services in this area of specialization.

Two professional focus are possible:

- Professional focus in soil sciences (MISOL (https://uclouvain.be/fr/facultes/agro/missol.html))

- Professional focus: Agricultural, Food and Environmental Analysis (AFEPA)

Possible trainings at the end of the programme

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Possible trainings at the end of the programme

Successful completion of this Master's programme enables direct entry to other training programmes in the second and third cycles.

· Advanced Masters: the Advanced Masters in the field authorized by regulations in addition to those established by the University Development Commission (ARES-CCD) in the same field.

· Doctoral programmes: doctorate in Agronomic Science and Biological Engineering and other fields and universities subject to admission.

Contacts

For more information about this programme, please contact Professor Bruno Henry de Frahan at - bruno.henrydefrahan@uclouvain.be

Curriculum Management

Faculty

Structure entity	SST/AGRO
Denomination	Faculty of bioscience engineering (AGRO)
Sector	Sciences and Technology (SST)
Acronym	AGRO
Postal address	Croix du Sud 2 - bte L7.05.01 1348 Louvain-la-Neuve Tel: +32 (0) 10 47 37 19 - Fax: +32 (0) 10 47 47 45
Website	http://www.uclouvain.be/agro

Mandate(s)

- Dean : Christine Dupont
- Administrative director : Carole Dekelver

Commission(s) of programme

- Commission de programme - Master Bioingénieur-Sciences agronomiques (BIRA)
- 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: Frédéric Gaspart (https://uclouvain.be/repertoires/frederic.gaspart)

Other academic Supervisor(s)

- Mathieu Javaux (https://uclouvain.be/repertoires/mathieu.javaux)
- Pierre Defourny (https://uclouvain.be/repertoires/pierre.defourny)

Jury

- Charles Bielders (https://uclouvain.be/repertoires/charles.bielders)
- Quentin Ponette (https://uclouvain.be/repertoires/quentin.ponette)

Useful Contact(s)

- Conseiller aux études: Eric Gaigneaux (https://uclouvain.be/repertoires/eric.gaigneaux)