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)

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

				Year 1	2
⊠ LBRAI2208	Firms and Markets : Strategic Analysis	Frédéric Gaspart	EN [q1] [30h] [5 Credits] > *French-friendly*		x
⊠ LBRAI2210	Microeconomics of Development	Frédéric Gaspart	EN [q1] [30h] [4 Credits] > *French-friendly*	x	x
⊠ LBRAI2212	Economics of Rural Development				

				Year 1	2
LBRES2204	Integrated water management of water resources	Marnik Vanclooster (coord.)	FR [q1] [22.5h+22.5h] [4 Credits]	x	

30 crédits minimum à choisir parmi les unités d'enseignement suivantes : (30 credits)

LANGL2480	English Communication Skills for Bioengineers	Ahmed Adrioueche Ariane Halleux Lucille Meyers Philippe Neyt Charleche			

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

PROFESSIONAL FOCUS: SOIL SCIENCE [30.0]

- 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...)

Year
1 2

Content: (30 credits)

LBIRE2102	Applied geomatics	Pierre Defourny	FR [q1] [30h+22.5h] [4 Credits] > *English-friendly*

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

Bachelier en sciences géographiques et/ou environnementales	Access based on application	See https://www.ilr1.uni-bonn.de/afepa/en
Bachelier en sciences sociales et/ou économiques	Access based on application	
Bachelier en sciences de l'ingénieur, orientation bioingénieur	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	Access based on application	See https://www.ilr1.uni-bonn.de/afepa/en
Foreign Bachelors		
Tout grade de bachelier en sciences sociales, économiques, agronomiques, géographiques et/ou environnementales	Access based on application	See https://www.ilr1.uni-bonn.de/afepa/en

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		Access based on application	See https://www.ilr1.uni-bonn.de/afepa/en

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

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.

Admission and Enrolment Procedures for general registration

Evaluation

The evaluation methods comply with the regulations concerning studies and exams. 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)

- 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 Frédéric Gaspart at - frederic.gaspart@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

Other academic Supervisor(s)

- Mathieu Javaux
- Pierre Defourny

Jury

- Président de jury: Quentin Ponette
- Secrétaire: Sophie Opfergelt

Useful Contact(s)

- Conseiller aux études: Pierre Bertin