

BOE2M

2013 - 2014

Master [120] in Biology of Organisms and Ecology

At Louvain-la-Neuve - 120 credits - 2 years - Day schedule - In frenchDissertation/Graduation Project : **YES** - Internship : **YES**Activities in English: **YES** - Activities in other languages : **NO**Activities on other sites : **YES**Main study domain : **Sciences**Organized by: **Faculté des sciences (SC)**Programme code: **boe2m** - European Qualifications Framework (EQF): 7**Table of contents**

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BOE2M - Introduction

BOE2M - Admission

For the specific conditions of this program : refer to the French version

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

BOE2M - Information

Learning outcomes

In the context of the 'Louvain Academy, UCL (Université catholique de Louvain at Louvain-la-Neuve) and FUNDP (Facultés Universitaires Notre-Dame de la Paix at Namur) organize a joint programme, at both sites, for the Master (120 credits) in Biology of Organisms and Ecology, described below.

The aim is to train scientists who can analyse, understand and react when faced with questions or problems relating to the environment and biodiversity, both in terrestrial and aquatic ecosystems, and to the functioning of organisms function in these ecosystems. This involves advanced training, field observation, experimental research both inside and outside the laboratory, and requires the modern methods used by biologists. The Master in Biology of Organisms and Environment (BOE) comprises four option courses : biodiversity, management of ecosystems, interactions between organisms and the environment and biology of plant organisms.

The **research focus** prepares students to become researchers. Specialized courses deal with issues that are at the edge of human knowledge. There is emphasis on experimentation and academic communication, both written and oral. The programme includes a placement or training in a laboratory outside UCL, preferably abroad.

The **professional focus** enables students who wish to go on to work in industry to have the opportunity of a work placement so that they work alongside professionals and begin to gain a reputation. Students should choose courses that prepare them for working in business and environmental management.

The **teaching focus** is a specially adapted programme designed for teachers at higher levels in secondary education.

Collaboration with the ecologists from the Facultés Universitaires Notre-Dame de la Paix in Namur means that there is wider range of subjects for courses and dissertations since the fields of research complement each other, with terrestrial ecology and marine biology at UCL and aquatic ecology in Namur).

Dans le cadre de l'Académie de Louvain, l'UCL (Université catholique de Louvain à Louvain-la-Neuve) et les FUNDP (Facultés Universitaires Notre-Dame de la Paix à Namur) organisent un programme commun, réparti sur les deux sites, de master (120 crédits) en Biologie des organismes et écologie tel que décrit ci-dessous.

L'objectif est de former des scientifiques en mesure d'analyser, comprendre et réagir face à des questions ou problèmes d'environnement et de biodiversité, tant en ce qui concerne les écosystèmes terrestres qu'aquatiques, et de fonctionnement des organismes dans ces écosystèmes. Ceci implique une formation théorique avancée, des observations sur le terrain, des recherches expérimentales dans la nature et en laboratoire, et fait appel aux méthodes modernes à la disposition des biologistes.

Le master en biologie des organismes et écologie (BOE) comprend trois options : biodiversité, gestion des écosystèmes et interactions organismes-environnement.

La **finalité approfondie** prépare au métier de chercheur. Des enseignements spécialisés ouvrent des questions qui se situent à la limite des connaissances. On insiste sur la formation à la démarche expérimentale, à la communication scientifique, écrite et orale. Le programme comprend un stage ou une formation dans un laboratoire extérieur à l'UCL et aux FUNDP, de préférence à l'étranger.

La **finalité spécialisée** permet à ceux qui envisagent de s'engager directement vers une profession orientée vers l'environnement de bénéficier d'un stage leur permettant de côtoyer des professionnels en cette matière et de se faire connaître. Les étudiants opteront dans le programme pour des cours préparant à la participation aux entreprises et à la gestion de l'environnement.

La **finalité didactique** est clairement orientée vers l'enseignement dans les années supérieures de l'enseignement secondaire. Un programme adapté prépare à cette profession.

La collaboration avec les écologistes des Facultés Universitaires Notre-Dame de la Paix à Namur permet d'offrir une gamme plus large en termes de sujets de cours et de mémoires, parce que les champs de recherche sont complémentaires (écologie terrestre et biologie marine à l'UCL, écologie aquatique aux FUNDP).

Teaching method

Inter-university cooperation between UCL and FUNDP, where complementary research in ecology is carried out, means that the range of available courses is much wider than at each individual university. We have built a programme with joint training of 16 credits and four option courses of 22 credits each. These option courses are mainly focused on subjects which cut across the boundaries between the plant and animal and the terrestrial and aquatic worlds. The structure of the programme enables students to diversify and individualize their studies with 18 credits for optional activities. The dissertation begins in the second semester of the first year and is defended at the end of the first semester of the second year: this is convenient for doing field research during the spring and summer. The placement (25 credits) in the second semester of the second year widens experience of scientific research for those doing the research focus and introduces students doing the professional focus to a professional environment. All students must return for the last five credits in advanced training; there is also a debriefing and an opportunity to exchange experiences with the other students.

Evaluation

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

Students doing the research focus are invited to attend a foreign university, under the Socrates or Mercator exchange schemes, during the second semester of the second year of the Master to do their placement and/or do a part of their dissertation during the dissertation period and possibly also take some optional activities.

For students doing the professional focus, it may be more logical to stay in Belgium, but they may take advantage of the opportunity for an exchange visit during their dissertation. Mobility in the first semester of the first year of the Master may also be possible, providing equivalents for the core subjects and some of the option courses can be found. In the same way, students from foreign universities can come to UCL to take selected activities from our Master programme and/or do a part of their final dissertation.

Possible trainings at the end of the programme

Whatever focus is chosen, the Master in Biology of Organisms and Ecology gives direct access to the doctorate in science.

BOE2M - Contacts

Curriculum Managment

Entite de la structure BIOL

Acronyme	BIOL
Dénomination	Ecole de biologie
Adresse	Croix du sud, 4-5 bte L7.07.05 1348 Louvain-la-Neuve Tél 010 47 34 89 - Fax 010 47 35 15
Site web	https://www.uclouvain.be/biol
Secteur	Secteur des sciences et technologies (SST)
Faculté	Faculté des sciences (SC)
Commission de programme	Ecole de biologie (BIOL)

Jury

Secrétaire : **Renate Wesselingh**

Usefull Contacts

Secrétaire de l'Ecole de biologie : **Isabelle Magnoli**

BOE2M - Detailed programme

Programme structure

The Master in Biology of Organisms and Ecology comprises core subjects of 50 credits, a focus of 30 credits, an option course of 22 credits and 18 credits for optional subjects.

Whatever the focus or the options chosen, the programme of this master shall totalise 120 credits, spread over two years of studies each of 60 credits

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Core study

> [Tronc commun](#) [en-prog-2013-boe2m-lboe200t.html]

Focuses

> [Research focus](#) [en-prog-2013-boe2m-lboe200a]

> [Teaching focus](#) [en-prog-2013-boe2m-lboe200d]

> [Professional focus:Environmental Biology](#) [en-prog-2013-boe2m-lboe200s]

Options courses

> [Option biodiversité](#) [en-prog-2013-boe2m-lboe211o.html]

> [Option gestion des écosystèmes](#) [en-prog-2013-boe2m-lboe210o.html]

> [Option interactions organismes-environnement](#) [en-prog-2013-boe2m-lboe212o.html]

> [Liste des activités au choix](#) [en-prog-2013-boe2m-lboe219o.html]

Programme by subject

Core courses [50.0]

● Mandatory

△ Courses not taught during 2013-2014

⊕ Periodic courses taught during 2013-2014

⊗ Optional

⊖ Periodic courses not taught during 2013-2014

‡ Two years course

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

						Year	
						1	2
● LBOE2997	Mémoire - 1ère partie	N.		8 Credits		x	
● LBOE2113	Séminaire d'accompagnement du mémoire	Annick Sonck, Renate Wesselingh	0h+18h	2 Credits	2q	x	
● LBOE2998	Mémoire - 2ème partie	N.		20 Credits			x
● LBOE2110	Stages de terrain	Thierry Hance, null SOMEBODY, Hans Van Dyck, Renate Wesselingh (coord.)	20h+80h	6 Credits	1q	x	

Year

1 2

○ LBOE2111	Evolution	Thierry Hance, Thierry Hance (compensates Caroline Nieberding), Caroline Nieberding, René Rezsöházy, René Rezsöházy (compensates Caroline Nieberding), Marie-Claire Van Dyck, Renate Wesselingh, Renate Wesselingh (compensates Caroline Nieberding)	60h	5 Credits	1q	x	
○ LBOE2112	Analyse des données biologiques	N.	24h+36h	5 Credits	1q	x	

○ Sciences humaines (4 credits)

⊗ LSC2001	Introduction to contemporary philosophy	Nathalie Frogneux	30h	2 Credits	2q Δ	x	
⊗ LSC2220	Philosophy of science	Alexandre Guay	30h	2 Credits	2q	x	
⊗ NSSPS2101	Science, ethics and development	N.	22.5h +7.5h	4 Credits	1q	x	
⊗ LFILO2003E	Ethics in the Sciences and technics (sem)	N.		2 Credits		x	

List of focuses

- > [Research focus](#) [en-prog-2013-boe2m-lboe200a]
- > [Teaching focus](#) [en-prog-2013-boe2m-lboe200d]
- > [Professional focus:Environmental Biology](#) [en-prog-2013-boe2m-lboe200s]

RESEARCH FOCUS [30.0]

- Mandatory
- △ Courses not taught during 2013-2014
- ⊕ Periodic courses taught during 2013-2014
- ⊗ Optional
- ⊖ Periodic courses not taught during 2013-2014
- ‡ Two years course

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

						Year	
						1	2
○ LBOE2240	Stage de recherche	N.		26 Credits			x
○ LBOE2245	Workshops	Daniel Tyteca	0h+40h	4 Credits			x

TEACHING FOCUS [30.0]

- Mandatory
- △ Courses not taught during 2013-2014
- ⊕ Periodic courses taught during 2013-2014
- ⊗ Optional
- ⊖ Periodic courses not taught during 2013-2014
- ‡ Two years course

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

						Year	
						1	2

⊗ Finalité didactique UCL (30 credits)

offerte sur le site UCL

○ LBIO2310	Stages d'enseignement en biologie (en ce compris le séminaire d'intégration des stages)	Myriam De Kesel	15h+40h	7 Credits			x	x
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○ Module concevoir, planifier et évaluer des pratiques d'enseignement et d'apprentissage

○ LAGRE2220	General didactics and education to interdisciplinarity	Ghislain Cartier, Myriam De Kesel, Jean-Louis Dufays, Anne Ghysseleinckx, Philippe Parmentier, Marc Romainville, Bernadette Wiame	22.5h +15h	3 Credits			x	x
○ LSNAT2320	Didactique et épistémologie des sciences naturelles	Myriam De Kesel, Bernard Tinant	60h	6 Credits			x	x

○ Un cours parmi les trois suivants (4 credits)

⊗ LMAT2320A	Didactique et épistémologie de la mathématique (en ce compris le stage d'écoute)	Christiane Hauchart	37.5h +10h	4 Credits			x	x
⊗ LPHY2320A	Didactique et épistémologie de la physique (en ce compris le stage d'écoute)	Jim Plumet	37.5h +10h	4 Credits			x	x
⊗ LGEO2320A	Didactique et épistémologie de la géographie (en ce compris le stage d'écoute)	Marie-Laurence De Keersmaecker	37.5h +10h	4 Credits			x	x

○ Module comprendre et analyser l'institution scolaire et son contexte

○ LAGRE2120	The school institution and its context	Branka Cattonar, Dominique Grootaers, Christian Lannoye, Caroline Letor	22.5h +25h	4 Credits			x	x
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						Year	
						1	2
○ LAGRE2400	See specifications in french	Anne Ghysselinckx (coord.)	20h	2 Credits		x	x

○ Module animer un groupe et travailler en équipe

○ LAGRE2020	To understand the adolescent in school situation, to manage the interpersonal relationship and to animate the class group	Ann d'Alcantara, James Day, Xavier Dejemepe, Bernard Demuyssere, Jean Goossens, Christian Lannoye, Pierre Meurens, Pascale Steyns (coord.), Pascal Vekeman	22.5h +22.5h	4 Credits		x	x
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⌘ Finalité didactique FUNDP (30 credits)

offerte sur le site FUNDP

○ NFAGR2401	Education scolaire et société	N.	30h+10h	4 Credits	2q		x
○ NFAGR2402	Psychopédagogie	N.	60h+30h	7 Credits	1+2q		x
○ NFAGR2409	Foundation of neutrality	N.	20h	2 Credits	2q		x
○ NSAGR2201	Didactique et épistémologie des sciences expérimentales	N.	30h	2 Credits	1+2q		x
○ NSAGR2203	Didactique et épistémologie de la biologie	N.	30h	3 Credits	1+2q		x
○ NSAGR2211	Stages d'enseignement de la biologie en école secondaire	N.	0h+45h	7 Credits	2q		x

○ Un cours au choix parmi les deux suivants (3 credits)

⌘ NSAGR2202	Didactique et épistémologie de la physique	N.	30h	3 Credits	1+2q		x
⌘ NSAGR2204	Didactique et épistémologie de la chimie	N.	30h	3 Credits	1+2q		x

○ Un cours au choix (2 credits)

⌘ NFAGR2403	Education aux nouvelles technologies de l'enseignement et de l'apprentissage	N.	15h	2 Credits	2q		x
⌘ NFAGR2404	Analyse de pratiques	N.	8h+7h	2 Credits	2q		x
⌘ NFAGR2405	Initiation aux pratiques de tutorat	N.	4h+11h	2 Credits	1q		x
⌘ NSAGR2213	Didactical Comparison between Experimental Sciences and Mathematics	N.	15h	2 Credits	2q		x
⌘ NSSPS1202	History of science	N.	22.5h	2 Credits	2q		x
⌘ NCAP2003	Pédagogie des adultes	N.	15h	2 Credits			x

PROFESSIONAL FOCUS: ENVIRONMENTAL BIOLOGY [30.0]

● Mandatory

△ Courses not taught during 2013-2014

⊕ Periodic courses taught during 2013-2014

⊗ Optional

⊖ Periodic courses not taught during 2013-2014

⊞ Two years course

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

						Year	
						1	2
● LBOE2260	Stage de travail	N.		26 Credits			x
● NSBIO2222	Gestion des ressources humaines	N.	15h	2 Credits	2q		x
● NSGES2203	Gestion de l'entreprise	N.	15h	2 Credits	2q		x

Options [40.0]

Les étudiants choisissent une des trois options suivantes et complètent leur programme avec 18 crédits choisis parmi la liste activités au choix.

- > Option biodiversité [en-prog-2013-boe2m-lboe211o]
- > Option gestion des écosystèmes [en-prog-2013-boe2m-lboe210o]
- > Option interactions organismes-environnement [en-prog-2013-boe2m-lboe212o]
- > Liste des activités au choix [en-prog-2013-boe2m-lboe219o]

OPTION BIODIVERSITÉ [22.0]

● Mandatory

△ Courses not taught during 2013-2014

⊕ Periodic courses taught during 2013-2014

⊗ Optional

⊖ Periodic courses not taught during 2013-2014

‡ Two years course

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

						Year	
						1	2
● LBOE2120	Conservation de la biodiversité	Nicolas Schtickzelle, Hans Van Dyck	36h+12h	4 Credits	1q	x	
● LBOE2121	Biodiversité des biomes terrestres	Caroline Nieberding	24h	2 Credits	2q	x	
● LBOE2122	Biodiversité du milieu marin	Jérôme Mallefet	24h	2 Credits	2q	x	
● NSBOE2123	Freshwater Biodiversity	N.	12h+24h	3 Credits	1q	x	
● LBOE2124	Ecologie moléculaire	Caroline Nieberding	36h+48h	7 Credits	1q	x	
● LBOE2140	Ecologie du paysage	Hans Van Dyck	24h+24h	4 Credits	1q	x	

OPTION GESTION DES ÉCOSYSTÈMES [22.0]

● Mandatory

△ Courses not taught during 2013-2014

⊕ Periodic courses taught during 2013-2014

⊗ Optional

⊖ Periodic courses not taught during 2013-2014

‡ Two years course

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

						Year	
						1	2
● LBOE2140	Ecologie du paysage	Hans Van Dyck	24h+24h	4 Credits	1q	x	
● LBOE2141	Ecologie de la restauration	Hans Van Dyck	12h+12h	2 Credits	1q	x	
● LBOE2143	Questions d'actualité en biologie marine	Cathy Debier, Jérôme Mallefet, Jean-François Rees	24h	2 Credits	2q	x	
● NSBOE2144	Ichtyologie, pêche et aquaculture	N.	18h+12h	3 Credits	1q	x	
● NSGOL2145	Pédologie	N.	12h+12h	2 Credits	1q	x	
● NSGOL2146	Hydrogéologie	N.	18h+12h	3 Credits	1q	x	
● NSBOE2142	Ecology of natural and disturbed aquatic environments	N.	18h+20h	3 Credits	1q	x	
● LBIRF2104A	Phytosociologie	Anne-Laure Jacquemart, Quentin Ponette, Caroline Vincke	15h+30h	3 Credits	2q	x	

OPTION INTERACTIONS ORGANISMES-ENVIRONNEMENT [22.0]

● Mandatory

△ Courses not taught during 2013-2014

⊕ Periodic courses taught during 2013-2014

⊗ Optional

⊖ Periodic courses not taught during 2013-2014

‡ Two years course

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

						Year	
						1	2
● LBOE2160	Ecologie des interactions	Thierry Hance, Anne-Laure Jacquemart	24h	2 Credits	1q	x	
● LBOE2161	Ecologie comportementale	Hans Van Dyck	24h	2 Credits	1q	x	
● NSBOE2162	Ecophysiologie des végétaux aquatiques	N.	12h+12h	2 Credits	1q	x	
● NSBOE2163	Eléments d'écotoxicologie	N.	24h+24h	4 Credits	1q	x	
● LBOE2168	Interactions plantes-environnement	Stanley Lutts	24h+12h	3 Credits	1q	x	
● NSBOE2164	Relations animaux-environnement	N.	18h+12h	3 Credits	1q	x	
● LBOE2165	Génomique, protéomique	Pierre Morsomme, null SOMEBODY	24h+12h	3 Credits	1q	x	
● LBOE2166	Lutte biologique	Claude Bragard, Thierry Hance	12h+24h	3 Credits	2q	x	

LISTE DES ACTIVITÉS AU CHOIX [18.0]

● Mandatory

△ Courses not taught during 2013-2014

⊕ Periodic courses taught during 2013-2014

⊗ Optional

⊖ Periodic courses not taught during 2013-2014

‡ Two years course

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

Year

1 2

⊗ Cours avancés

⊗ NSBOE2237	Biological water quality assessment	N.	12h+12h	2 Credits	1q	x	x
⊗ LENVI2011	Méthodes d'évaluation et de gestion environnementale	Jean-Pierre Tack	30h	3 Credits	2q	x	x
⊗ LBRES2106B	Gestion intégrée du système sol-plante : Processus et cycles biopédologiques	N.		2 Credits		x	x
⊗ LBIR1334	Introduction to forestry sciences	Quentin Ponette (coord.), Caroline Vincke	30h+15h	3 Credits	2q	x	x
⊗ LBIR1343	Environmental Economics	Frédéric Gaspard	37.5h +7.5h	4 Credits	2q	x	x
⊗ LBIRE2105	Water and soil quality	Henri Halen, Xavier Rollin (coord.)	30h+7.5h	3 Credits	2q	x	x
⊗ LBIR1336	Sciences du sol	Pierre Delmelle (coord.), Bruno Delvaux	30h+30h	5 Credits	2q	x	x
⊗ LBIR1338	Bioclimatologie	Thierry Fichet (coord.), Hugues Goosse	22.5h +7.5h	3 Credits	1q	x	x
⊗ NSGOL1204	Paléontologie animale	N.	15h+30h	4 Credits	2q	x	x
⊗ NSGOL1209	Paléontologie végétale	N.	10h+15h	4 Credits	1q	x	x
⊗ LBIOE2001	Biodiversité marine - expertise flore	Jérôme Mallefet		6 Credits		x	x
⊗ LBIOE2002	Biodiversité marine - expertise faune	Jérôme Mallefet		6 Credits		x	x
⊗ LBOE2148	Ecologie microbienne	Stephan Declerck	24h	2 Credits		x	x
⊗ LBOE2191	Questions d'actualité en environnement	Thierry Hance	24h	2 Credits	2q	x	x
⊗ LBOE2292	Modélisation écologique et évolutive	Renate Wesselingh	12h+36h	4 Credits	1q	x	x
⊗ NSBIO2129	Genetic dynamics: a matter of survival	N.	22h	3 Credits	1q	x	x
⊗ NSBIO2132	Molecular evolution and adaptation	N.	22h	3 Credits	1q	x	x
⊗ NSBIO2201	Parasitologie	N.	15h	2 Credits	1q	x	x

⊗ Télédéttection et aménagement

⊗ LGEO1342	Geographical Information Systems (GIS)	Sophie Vanwambeke	30h+30h	5 Credits	1q	x	x
⊗ LGEO1343	Remote sensing	Eric Lambin	30h+30h	5 Credits	1q	x	x
⊗ LGEO2140	Advanced physical geography	Kristof Van Oost (coord.), Veerle Vanacker	30h+30h	5 Credits		x	x
⊗ LBRAT2101	Suburban and rural space development	Pierre Defourny (coord.), Xavier Delmon (compensates Pierre Defourny), Yves Hanin, Bertrand Ippersiel (compensates Pierre Defourny), Anne-Laure Jacquemart	45h +22.5h	5 Credits	1q	x	x
⊗ LBIRE2101	Statistical analysis of spatial and temporal data	Patrick Bogaert	22.5h +15h	3 Credits	2q	x	x
⊗ LBIRE2102	Applied Geomatic	Pierre Defourny	30h +22.5h	4 Credits	1q	x	x
⊗ NSGOG1201	Cartographie thématique et SIG	N.	22.5h +20h	4 Credits	1q	x	x

						Year	
						1	2
⊗ NSGOG1301	Modélisation spatiale et SIG	N.	20h+30h	4 Credits	2q	x	x
⊗ NSGOG1303	Aménagement du territoire et SIG	N.	65h	6 Credits	1+2q	x	x

⊗ Cours d'ouverture

⊗ LDROP2101	Economic Aspects of Intellectual Property	Dominique Kaesmacher, Alain Strowel, François Wéry	30h	5 Credits	2q	x	x
⊗ LDROP2102	In-depth study of questions on intellectual property rights	Alain Strowel	30h	5 Credits	2q	x	x
⊗ LDROP2103	Law on intellectual property contr	Vincent Cassiers, Fernand De Visscher	30h	5 Credits	2q	x	x
⊗ LBRTI2203	Communication scientifique dans le domaine des sciences exactes	Pascale Gualtieri (coord.), Joël Saucin	30h	3 Credits	1q	x	x
⊗ WMD2290	Introduction à la science des animaux de laboratoire	N.	35h+10h	3 Credits	2q	x	x
⊗ NSFCM2101	Formation à la manipulation des animaux de laboratoire intégrant les méthodes alternatives à l'expérimentation animale	N.	40h	4 Credits	2q	x	x
⊗ LDROP2061	Sustainable Development Law	Francis Haumont	30h	5 Credits	2q	x	x
⊗ NSADR2201	Propriété intellectuelle, brevets et certification	N.	15h	3 Credits	2q	x	x
⊗ NSSPS2203	Philosophy of Biology	N.	15h	2 Credits	1q	x	x
⊗ NSBIO2103	Techniques de communication	N.	15h	2 Credits	1q	x	x

⊗ Cours au choix complémentaires à la finalité didactique de l'UCL

⊗ LMAT2330	Seminar on the teaching of mathematics	Christiane Hauchart, Enrico Vitale	0h+45h	5 Credits		x	x
⊗ LPHY2330	Séminaire de didactique de la physique	Jim Plumet	0h+30h	5 Credits		x	x
⊗ LCHM2330	Séminaire de didactique de la chimie	Agnès Gnagnarella, Bernard Tinant	0h+30h	5 Credits		x	x
⊗ LGEO2330	Séminaire de didactique de la géographie	Marie-Laurence De Keersmaecker	0h+30h	5 Credits		x	x
⊗ LAGRE2310	Micro-teaching exercises	Pascalina Papadimitriou, Dominique Vandercamme	15h	2 Credits		x	x
⊗ LAGRE2221	Learning and teaching with new technologies	Marcel Lebrun	15h+15h	2 Credits		x	x

⊗ Formation interdisciplinaire en création d'entreprise (20 credits)

Cette formation est réservée aux seuls étudiants qui choisissent la finalité spécialisée. Pour les étudiants n'ayant pas les prérequis en gestion, le cours LCPME 2000 : Fondements de la gestion de la PME doit figurer à leur programme de 1ère année de master.

⊗ LCPME2000	Venture creation financement and management I	Régis Coeurderoy, Olivier Giacomini (compensates RÉgis Coeurderoy), Paul Vanzeveren	30h+15h	5 Credits	1+2q	x	
○ LCPME2001	Entrepreneurship Theory (in French)	Frank Janssen	30h+20h	5 Credits	1q	x	x
○ LCPME2002	Managerial, legal and economic aspects of the creation of a company (in French)	Régis Coeurderoy, Yves De Cordt	30h+15h	5 Credits	1q	x	x
○ LCPME2004	Advanced seminar on Entrepreneurship (in French)	Frank Janssen	30h+15h	5 Credits	2q	x	x
○ LCPME2003	Business plan of the creation of a company (in French)	Frank Janssen	30h+15h	5 Credits	2q	x	x

