

Block view of the study programme

Or Th Pr Au Cr

Block 1

Cours obligatoires de la finalité

Periods 1 and 2

AGRO1.11 Rural economics and European and international policy.

ECON0942-1 *Rural economics and farm business management* - Philippe BURNY, Thomas DOGOT - [8h FT] Q1 25 15 [+] 5

GEST3019-2 *Food policies and strategies* (english language) - Hossein AZADI - [3h FT] Q1 9 15 [+] 3

Corequisite :

LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)

STAT1213-1 *Multivariate analysis I: data exploration and structuring* - Yves BROSTAUX Q1 9 9 - 2

AGRO1.12 General crop husbandry

VEGE0041-1 *Pest biology and ecology* Q1 5

- *Introduction* - Frédéric FRANCIS, François HENRIET, Sébastien MASSART - [8h AUTR] 34 6 [+]

- *Depth notions* - Frédéric FRANCIS, François HENRIET, Sébastien MASSART - [10h AUTR] - - [+]

Corequisite :

LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)

VEGE0024-1 *General and applied phytotechnology in temperate and tropical settings* - Nicolas DESOIGNIES, Benjamin DUMONT - [5h FT] Q1 39 4 [+] 5

AGRO1.13 Livestock systems

ANIM0029-1 *Foundations and dynamics of livestock systems* - Yves BECKERS, Jérôme BINDELLE, Martine SCHROYEN Q1 54 - - 6

ANIM0030-1 *Animal recording, breeding and reproduction in modern sustainable animal production system* (english language) - Nicolas GENGLER, Martine SCHROYEN - [4h FT] Q1 22 10 [+] 4

Corequisite :

LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)

Notice : The juries for the Masters in Bioengineering reserve the right not to organise specific classes if they are chosen by fewer than five students.

Cours obligatoires du tronc commun

Periods 3 and 4

AGRO1.30 Core curriculum Q2

MANA0004-1 *Portfolio (Master)* - Yves BECKERS, Hugues CLAESSENS, Gilles COLINET, Aurore DEGRÉ, Dorothée GOFFIN - [24h AUTR] TA - - [+] 2

LANG2952-1 *Practice of Scientific English for bioengineers (AGRO) (level B2+)* - Sophie DEPOTERRE, Estelle MAYARD - [36h AUTR] TA - 12 [+] 4

Corequisite :

GEST3019-2 - Food policies and strategies

VEGE0041-1 - Biologie et écologie des bioagresseurs

INFO9028-1 *Data Sciences* - JeanFrançois BASTIN, Yves BROSTAUX, Nicolas GENGLER, Hélène SOYEURT - [12h Pr.] Q2 6 - [+] 2

AGRO0026-1 *Integrated production systems* Q2 - - - 2

AGRO0027-1 *Excursion week* - [8h Pr., 32h FT] Q2 - - [+] 2

Cours au choix du tronc commun

Choose one module from the courses with options no. 1 (period 3):

AGRO1.32 Livestock systems engineering

ANIM0017-1	<i>Biotechnology aspects of livestock systems</i> - Yves BECKERS, Jérôme BINDELLE, Martine SCHROYEN	Q2	18	-	-	2
ANIM0025-1	<i>Feeding dairy cow</i> - Yves BECKERS	Q2	9	9	-	2
ANIM0024-1	<i>Breeding system for agroecology</i> - Yves BECKERS, Jérôme BINDELLE - [3h FT]	Q2	9	6	[+]	2

AGRO 1.33 Agricultural policy, sociology and rural legislation

SOCI2234-1	<i>Construction of public policies</i> - AnneCatherine DALCQ, Juliette RENARD	Q2	18	-	-	2
ECON2247-1	<i>Agricultural policy</i> - Philippe BURNY - [4h SEM]	Q2	9	5	[+]	2
DROI0967-1	<i>Rural law</i> - Gaëtan GOISSE	Q2	18	-	-	2

AGRO 1.34 Approche systémique des productions végétales en régions tempérées

VEGE0027-1	<i>Systematic approach to plant production in temperate regions</i> - <i>Plant sciences and different field crop and production species</i> - Benjamin DUMONT - [6h Ex.] - <i>Implementation of technical pathways under real conditions</i> - Benjamin DUMONT - [3h FT] - <i>Evaluation and optimisation of production systems</i> - Benjamin DUMONT	Q2				6
			28	-	[+]	
				-	12	[+]
				-	9	-

Corequisite :
VEGE0024-1 - Phytotechnie générale et appliquée en milieux tempérés et tropicaux

Choose one module from the courses with options no. 2 (period 3):

AGRO 1.35 Biochemistry and animal pathology

ANIM0012-1	<i>Farm animal immunology and pathology</i> (english language) - Martine SCHROYEN	Q2	18	-	-	2
	Corequisite : LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)					
ANIM0005-1	<i>Functional biochemistry in health and disease</i> (english language) - Martine SCHROYEN	Q2	9	9	-	2
	Corequisite : LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)					
ANIM0011-3	<i>Welfare and ethics in animal productions</i> (english language) - Nicolas GENGLER - [3h FT]	Q2	9	6	[+]	2
	Corequisite : LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)					

AGRO 1.36 Economics of development

ECON2246-2	<i>Economics of developing countries</i> (english language) - Hossein AZADI - [16h SEM]	Q2	8	-	[+]	2
	Corequisite : LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)					
ECON2254-2	<i>Tropical markets</i> (english language) - Hossein AZADI	Q2	9	9	-	2
	Corequisite : LANG2952-1 - Pratique de l'anglais scientifique de bioingénieur (AGRO) (niveau B2+)					
ECON2253-2	<i>Economics of development Seminar</i> - Hossein AZADI, Thomas DOGOT - [18h SEM]	Q2	-	-	[+]	2

AGRO 1.37 Innovative systems of plant production

VEGE0037-1	<i>Innovative system of plant production</i> - <i>Urban agriculture</i> - Haissam JIJAKLI - <i>Developmental physiology applied to plant productions</i> - Pierre DELAPLACE - [6h FT] - <i>Physical parameters control of plant productions in controlled</i>	Q2				6
			13	13	-	
			12	-	[+]	
			9	-	-	

conditions - Vincent LEEMANS

Choisir 1 module à option n° 3 (période 4) :

AGRO 1.43 Economic decision support

ECON2299-1 *Assistance in economic decision-making* - Yves BROSTAUX, Catherine CHARLES, Thomas DOGOT - [6h AUTR] Q2 30 24 [+] 6

AGRO1.44 Bromatology and the cultivation of animal fodder

ANIM0018-1 *Bromatology and grazing management* - Yves BECKERS, Jérôme BINDELLE - [7h FT] Q2 37 13 [+] 6

AGRO 1.45 Plant protection methods

VEGE0028-1 *Methods for managing plant health* - Frédéric FRANCIS, Olivier GUELTON, Eric HAUBRUGE, François HENRIET, Haïssam JIAKLI, Sébastien MASSART, François VERHEGGEN Q2 42 15 - 6

Optional activities

RSTG0011-1 *Additional internship* - Aurore DEGRÉ TA - - - 5

HULG9547-1 *French course for IN mobility students (S1)* - N... Q1 - - - 3

HULG9548-1 *French course for IN mobility students (S2)* - N... Q2 - - - 3

HULG9546-1 *Erasmus: integration weeks* - N... Q1 - - - 3

Block 2

Notice : The juries for the Masters in Bioengineering reserve the right not to organise specific classes if they are chosen by fewer than five students.

Cours obligatoires du tronc commun

Periods 1 and 2

AGRO2.10 Group project

AGRO0020-1 *Group project* - Yves BECKERS - [36h AUTR] Q1 - - [+] 4

GEST3020-1 *Conceiving and economics assessment of projects (english language)* - Hossein AZADI - [9h SEM] Q1 9 - [+] 2

Periods 3 and 4

AGRO2.31 Final dissertation, training programme and English

RTFE2007-1 *Thesis in agronomic sciences* - Yves BECKERS Q2 - - - 24

RSTG0001-1 *Internship and professional relations* - Catherine COLAUX, Thomas DOGOT, Hélène SOYEURT TA 12 - - 8

Cours au choix du tronc commun

Periods 1 and 2

Choose 3 modules from the 4 modules options :

Option 1 of modules:

AGRO 2.11 Physiology, plant breeding and multiplication of cultivated plants

VEGE0026-1 *Physiology, plant breeding and multiplication of cultivated plants* Q1 6
 - *Physiology* - Pierre DELAPLACE 7 5 -
 - *Plant breeding* 9 5 -
 - *Diversity of plant genetic resources* - [7h FT] 7 1 [+]
 - *Multiplication of cultivated plants* - [2h FT] 9 5 [+]

Prerequisite :

VEGE0041-1 - Biologie et écologie des bioagresseurs

VEGE0024-1 - Phytotechnie générale et appliquée en milieux tempérés et tropicaux

AGRO 2.12 Data mining & Machine learning

INFO8008-1 *Multivariate analysis 2: data mining and machine learning* (english language) - Yves BROSTAUX, Juan Antonio FERNANDEZ PIERNA, Hélène SOYEURT

Prerequisite :

STAT1213-1 - Analyse multivariée 1 : exploration et structuration de données

INFO8009-1 *Bioinformatics* - Sébastien MASSART, Martine SCHROYEN

Module option 2 :

AGRO 2.13 Market and supply analysis

ECON2251-3 *Food value chains analysis, Introduction* (english language) - Hossein AZADI

ECON2252-2 *Marketing and consumer market research* - Alain DECROP

AGRO 2.14 Plant biotechnology

VEGE0032-1 *Plant biotechnology*

- *Molecular plant biotechnology* - Hervé VANDERSCHUREN
- *Exercise of plant biotechnology* - Hervé VANDERSCHUREN
- *Biology applied to pest prevention* - Frédéric FRANCIS
- *Biology applied to phytopathology* - Sébastien MASSART

AGRO 2.15 Smart Farming

AGRO0023-1 *Smart farming* - JeanFrançois BASTIN, Jérôme BINDELLE, Benjamin DUMONT

Option 3 of modules:

AGRO 2.16 Applied economic analysis

ECON2298-3 *Transition and new economic models* - Kevin MARÉCHAL

Prerequisite :

ECON0942-1 - Economie rurale et gestion des entreprises agricoles

GEST3019-2 - Food policies and strategies

STAT1213-1 - Analyse multivariée 1 : exploration et structuration de données

ECON2250-1 *International economics* (english language) - Hossein AZADI - [12h AUTR]

ECON2248-1 *Environmental economy* - Kevin MARÉCHAL

Prerequisite :

ECON0942-1 - Economie rurale et gestion des entreprises agricoles

GEST3019-2 - Food policies and strategies

STAT1213-1 - Analyse multivariée 1 : exploration et structuration de données

AGRO 2.17 Applied strategies for the integrated management of pests and weeds

VEGE0042-1 *Integrated and agroecological protection of crops* - Frédéric FRANCIS, Eric HAUBRUGE, François HENRIET, Haïssam JIJAKLI, Sébastien MASSART, Jeroen MEERSMANS, François VERHEGGEN

AGRO 2.18 Advanced animal genetics, genomics and biodiversity

ANIM0031-1 *Advanced animal genetics, genomics and biodiversity* (english language) - Nicolas GENGLER

Prerequisite :

ANIM0030-1 - Animal recording, breeding and reproduction in modern sustainable animal production system

ANIM0029-1 - Fondements et dynamiques des systèmes d'élevage

Module option 4 :

AGRO 2.19 Applied rural socioeconomics

ECON2273-1 *Applied rural socioeconomics* - Yves BROSTAUX, Thomas DOGOT - [4h SEM] Q1 10 43 [+] 6

Prerequisite :

STAT1213-1 - Analyse multivariée 1 : exploration et structuration de données

AGRO 2.20 Chemical, biological and environmental risks related to plant productions

VEGE0034-1 *Chemical, biological and environmental risks related to plant productions* - Patrick DU JARDIN, Benjamin DUMONT, Jeroen MEERSMANS, François VERHEGGEN Q1 24 33 - 6

Prerequisite :

VEGE0041-1 - Biologie et écologie des bioagresseurs

VEGE0024-1 - Phytotechnie générale et appliquée en milieux tempérés et tropicaux

AGRO 2.21 Feed & food

ANIM0019-1 *Current issues in breeding systems* - Yves BECKERS Q1 5 31 - 4

ALIM0010-3 *Food, human nutrition and dietetics (english language)* - Jérôme BINDELLE Q1 18 - - 2

[...] Possibility to choose between 2 and 6 credits among the following courses, replacing the B2 elective courses:

ENVT3129-1 *Evaluating sustainability* - Andrea DI MARIA, Angélique LÉONARD - [2h SEM] Q2 12 16 [+] 3

ENVT3050-1 *Quantification of ecosystem services* - Marc DUFRÈNE - [6h AUTR] Q1 9 5 [+] 2

BIOD0001-3 *Biodiversity management* - Arnaud MONTY - [6h SEM] Q1 18 - [+] 2

CHIM9321-1 *Immunology* - Bénédicte MACHIELS Q2 27 - - 3

ALIM0015-1 *Food sanitary safety* - Mohamed AYADI - [2h SEM] Q1 16 6 [+] 2

ALIM0013-2 *Techniques of food preservation* - Christophe BLECKER Q2 24 - - 2

BIOL2015-3 *Molecular biology* - Patrick FICKERS Q2 24 - - 2

Choose one language module from:

Periods 3 and 4

AGRO 2.31 English language

LANG2953-1 *Practice of specialized English for agricultural science (level C1 - Presentation)* - Sophie DEPOTERRE, Estelle MAYARD - [36h AUTR] TA - 12 [+] 4

Corequisite :

AGRO0020-1 - Projet de groupe

All year round

AGRO 2.32 Dutch language

LANG9914-1 *Dutch Intermediate Level (dutch language)* - Catherine PEETERS TA 18 18 - 4

AGRO 2.33 Spanish language

LANG9915-1 *Spanish - beginners* - Valérie COYETTE TA 18 18 - 4

Optional activity

INFO9013-1 *Multivariate analysis 3: Data mining et Machine Learning: advanced (english language)* - Yves BROSTAUX, David COLIGNON, Benoît MERCATORIS, Hélène SOYEURT Q2 12 28 - 4

Notice : INFO8001-1 prerequisite of the INFO9013-1 course

Bloc d'aménagement du programme de l'année

Additional ECTS Master in agricultural bioengineering

University of Liège - Academic Affairs Department

Date of data : 01/10/2024 - Page 5 / 7

Compulsory courses

Common core courses

GEST3028-2	<i>Accounting and management</i> - Thomas DOGOT	Q1	22	26	-	4
GEST3773-1	<i>Management of quality</i> - Mohamed AYADI, Sébastien MASSART - [6h AUTR]	Q1	18	-	[+]	2
STAT2004-1	<i>Applied statistics : First part</i> - Yves BROSTAUX	Q1	12	12	-	2
STAT2005-1	<i>Applied statistic : Second part</i> - Yves BROSTAUX	Q2	12	12	-	2
	Corequisite : STAT2004-1 - Statistique appliquée : 1ère partie					
PSYC5897-3	<i>Team, organization and change</i> - Daniel FAULX, Véronique JANS, Tiber MANFREDINI - [44h SEM]	TA	4	-	[+]	2
	Corequisite : MANA0003-1 - Portfolio (Bachelier) GEST3773-1 - Gestion de la qualité GEST3028-2 - Comptabilité et gestion des entreprises					
MANA0003-1	<i>Portfolio (Bachelor)</i> - Yves BECKERS, Hugues CLAESSENS, Gilles COLINET, Aurore DEGRÉ, Dorothée GOFFIN - [24h AUTR]	TA	-	-	[+]	2
	Corequisite : PSYC5897-3 - Equipe, organisation & changement					
RSTG0008-1	<i>Internship (Bachelor)</i> - Hélène SOYEURT - [18h AUTR]	TA	6	-	[+]	2
	Corequisite : PSYC5897-3 - Equipe, organisation & changement GEST3028-2 - Comptabilité et gestion des entreprises GEST3773-1 - Gestion de la qualité					
BIOL2044-1	<i>Plant physiology</i> - Patrick DU JARDIN	Q1	27	9	-	3
BIOL2013-2	<i>General microbiology, Introduction</i> - Patrick FICKERS, Philippe JACQUES	Q1	16	8	-	2
ENVT2044-1	<i>General ecology</i> - Grégory MAHY, Arnaud MONTY	Q1	24	-	-	2
INFO2038-1	<i>Computer science and algorithmic</i> - Hélène SOYEURT	Q1	2	22	-	2
MATH2016-1	<i>General mathematics and modelling of dynamics systems</i> - Jérôme BINDELLE, Catherine CHARLES, Frank DELVIGNE, Adeline FAYOLLE, Benoît MERCATORIS - Suppl : Gauthier LIGOT	Q1	24	24	-	4
PHYS3036-1	<i>Environmental physics</i> - Bernard LONGDOZ	Q1	18	18	-	3
LANG2966-2	<i>English language: level 3</i> - Sophie DEPOTERRE, Estelle MAYARD, Fiona THEWISSEN - [48h E-Lrng]	TA	-	24	[+]	4
INGE0008-1	<i>Multidisciplinary experimental project</i> - Yves BROSTAUX, Pierre DELAPLACE, Sébastien MASSART, Benoît MERCATORIS, Jacques MIGNON, Arnaud MONTY - [60h AUTR]	TA	6	6	[+]	6
	Corequisite : ENVT2044-1 - Ecologie générale BIOL2044-1 - Physiologie végétale GEST3773-1 - Gestion de la qualité STAT2004-1 - Statistique appliquée : 1ère partie STAT2005-1 - Statistique appliquée : 2ème partie					

Course Agricultural Sciences

AGRO0001-1	<i>Basic principles of agriculture and agroecology</i> - Pierre DELAPLACE, Benjamin DUMONT - [4h FT]	Q2	20	-	[+]	2
AGRO0002-1	<i>Fertilization and crop nutrition</i> - Caroline DE CLERCK, Patrick DU JARDIN, Benjamin DUMONT - [2h AUTR]	Q2	18	4	[+]	2
	Corequisite : BIOL2044-1 - Physiologie végétale AGRO0001-1 - Fondement d'agriculture et d'agroécologie					

AGRO0021-1	<i>Introduction to cultivation techniques and levers</i> - Benjamin DUMONT , Ludivine LASSOIS - [4h AUTR] Corequisite : AGRO0001-1 - Fondement d'agriculture et d'agroécologie	Q2	20	-	[+]	2
BIOL2015-3	<i>Molecular biology</i> - Patrick FICKERS Corequisite : BIOL2016-3 - Génétique générale	Q2	24	-	-	2
BIOL2016-3	<i>General genetics</i> - Nicolas GENGLER, Ludivine LASSOIS Corequisite : BIOL2015-3 - Biologie moléculaire	Q2	12	12	-	2
BIOL2018-1	<i>Animal nutrition</i> - Yves BECKERS	Q2	24	-	-	2
SPRA0001-1	<i>Sustainable breeding and zoogenetic resources</i> - Nicolas GENGLER - [4h FT] Corequisite : BIOL2016-3 - Génétique générale	Q2	20	-	[+]	2
BIOL2043-1	<i>Application of molecular biology and genetics</i> - Nicolas GENGLER, Martine SCHROYEN, Hervé VANDERSCHUREN, Luc WILLEMS Corequisite : BIOL2016-3 - Génétique générale	Q2	-	24	-	2
GERE0043-1	<i>Foundations of soil quality</i> - Gilles COLINET, Caroline DE CLERCK, Aurore DEGRÉ	Q2	18	6	-	2