

Block view of the study programme

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Block 1

Notice : The Master's juries in bioengineering reserve the right not to organise elective courses if they are selected by fewer than five students.

Core curriculum compulsory courses

Periods 3 and 4

GFEN1.30 Core curriculum Q2

MANA0004-1	<i>Portfolio (Master)</i> - Yves BECKERS, Hugues CLAESSENS, Gilles COLINET, Pierre DELAPLACE, Dorothee GOFFIN - [24h AUTR]	TA	-	-	[+]	2
LANG2959-1	<i>Practice of Scientific English for bioengineers (GFEN) (level B2+)</i> - Estelle MAYARD, Lelania SPERRAZZA - [36h AUTR]	TA	-	12	[+]	4

Corequisite :
 FORE0025-1 - Expertise sylvicole
 BIOD0007-1 - Méthodes d'analyse de la biodiversité
 FORE0008-2 - Analyse et valorisation stationnelles

Period 3

GFEN1.31 Economics and environmental law

DROI0969-1	<i>Forestry law and environmental law</i> - Etienne ORBAN DE XIVRY	Q2	24	-	-	2
ECON2255-4	<i>Forest economics</i> - Gauthier LIGOT	Q2	9	9	-	2
FORE0012-1	<i>Forest products supply chain</i> - Tom DE MIL - [3h SEM]	Q2	9	6	[+]	2

GFEN1.32 Basic Forest Management Principles

FORE0009-1	<i>Sustainable management of tropical forests</i> - JeanLouis DOUCET	Q2	36	-	-	3
FORE0005-3	<i>Multifunctional management of forests</i> - Anaïs GOREL, Philippe LEJEUNE - [4h SEM]	Q2	7	16	[+]	3

Corequisite :
 FORE0004-3 - Dendrométrie et inventaires
 ENVT0045-2 - Géomatique et télédétection appliquée

Period 4

GFEN1.41 Forestry

FORE0008-2	<i>Site analysis and valuation</i> - Hugues CLAESSENS - [15h FT]	Q2	12	6	[+]	3
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Corequisite :
 LANG2959-1 - Pratique de l'anglais scientifique de bioingénieur (GFEN) (niveau B2+)

FORE0025-1	<i>Expertise in silviculture</i> - Hugues CLAESSENS, Marc DUFRÈNE, Gauthier LIGOT - [16h FT]	Q2	10	1	[+]	3
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Corequisite :
 LANG2959-1 - Pratique de l'anglais scientifique de bioingénieur (GFEN) (niveau B2+)
 ENVT3050-1 - Quantification des services écosystémiques
 FORE0004-3 - Dendrométrie et inventaires
 FORE0008-2 - Analyse et valorisation stationnelles
 BIOD0001-3 - Gestion de la biodiversité

GFEN1.42 Management of natural ecosystems and landscapes

FORE0018-3	<i>Management of large fauna in temperate climate</i> - Simon LHOEST - [7h FT]	Q2	14	-	[+]	2
PAYS0001-2	<i>Ecological networks</i> - Marc DUFRÈNE, Grégory MAHY - [10h FT]	Q2	6	2	[+]	2

Corequisite :
 BIOD0001-3 - Gestion de la biodiversité

FORE0003-2	<i>Participatory management of natural environments</i> - Cédric VERMEULEN - [9h AUTR]	Q2	9	3	[+]	2
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Corequisite :

BIOD0001-3 - Gestion de la biodiversité

Optional activities

RSTG0011-1	<i>Additional internship</i> - Pierre DELAPLACE	TA	-	-	-	5
HULG9547-1	<i>French course for IN mobility students (S1)</i> - N...	Q1	-	-	-	3
HULG9548-1	<i>French course for IN mobility students (S2)</i> - N...	Q2	-	-	-	3
HULG9546-1	<i>Erasmus: integration weeks</i> - N...	Q1	-	-	-	3

Focus compulsory courses

Period 1

GFEN1.11 Inventory and biodiversity management

ENVT3050-1	<i>Quantification of ecosystem services</i> - Marc DUFRÈNE - [6h AUTR]	Q1	9	5	[+]	2
ECON2248-1	<i>Environmental economy</i> - Kevin MARÉCHAL	Q1	18	-	-	2
BIOD0001-3	<i>Biodiversity management</i> - Arnaud MONTY - [6h SEM]	Q1	18	-	[+]	2

GFEN1.12 Quantification of the natural resources

FORE0004-3	<i>Forest mensuration and forest inventory</i> - Gauthier LIGOT - [3h FT]	Q1	15	18	[+]	4
PAYS0007-2	<i>Landscape analysis and modeling</i> (english language) - JeanFrançois BASTIN	Q1	8	8	-	2

Period 2

GFEN1.21 Biodiveristy analysis methods

BIOD0007-1	<i>Biodiveristy analysis methods</i>	Q1				6
	- <i>Community</i> - Marc DUFRÈNE - [8h AUTR]		12	12	[+]	
	- <i>Populations</i> - Arnaud MONTY		15	9	-	

Corequisite :

BIOD0001-3 - Gestion de la biodiversité

LANG2959-1 - Pratique de l'anglais scientifique de bioingénieur (GFEN) (niveau B2+)

GFEN1.22 Geomatics applied to environmental management

ENVT0045-2	<i>Geomatics and applied remote sensing</i>	Q1				6
	- <i>Introduction</i> - JeanFrançois BASTIN, Philippe LEJEUNE		16	22	-	
	- <i>In-depth</i> - JeanFrançois BASTIN, Philippe LEJEUNE		8	11	-	

GFEN1.23 Wood

FORE0010-1	<i>Wood Science</i> (english language) - Tom DE MIL - [9h SEM, 2h FT]	Q1	18	7	[+]	4
FORE0036-1	<i>Timber anatomy and identification</i> - Tom DE MIL	Q1	10	10	-	2

Block 2

Notice : The Master's juries in bioengineering reserve the right not to organise elective courses if they are selected by fewer than five students.

Core curriculum compulsory courses

GFEN2.10 Group Project

FORE0028-1	<i>Group project</i> - Anaïs GOREL, Simon LHOEST - [54h AUTR]	Q1	-	-	[+]	6
	Prerequisite :					
	BIOD0007-1 - Méthodes d'analyse de la biodiversité					
	FORE0004-3 - Dendrométrie et inventaires					

Periods 3 and 4

GFEN2.31 Final work and internship

RTFE2009-1	<i>Thesis in forest and natural areas management</i> - Cédric VERMEULEN	Q2	-	-	-	24
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RSTG0004-1	<i>Internship and professional relations</i> - Hugues CLAESSENS, Catherine COLAUX, Thomas DOGOT	TA	12	-	-	8
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Common core courses

Choose 3 modules from :

Period 1

GFEN2.11 Ecological engineering

PAYS0014-1	<i>Ecological engineering</i> - Marc DUFRÊNE, Grégory MAHY - [23h FT]	Q1	19	15	[+]	6
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GFEN2.12 Forest Health

FORE0041-1	<i>Forest health</i> - Hugues CLAESSENS, Frédéric FRANCIS, Simon LHOEST, Sébastien MASSART - [10h FT]	Q1	41	6	[+]	6
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GFEN2.13 Integrated management of wildlife

Choose courses totalling 7 ECTS from the following :

RAVT0003-1	<i>Management of large fauna in tropical areas</i> - Cédric VERMEULEN - [4h SEM, 3h FT]	Q1	9	2	[+]	2
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Prerequisite :

- FORE0003-2 - Gestion participative des milieux naturels
- PAYS0001-2 - Réseaux écologiques
- FORE0018-3 - Gestion de la grande faune en milieu tempéré
- ENVT0045-2 - Géomatique et télédétection appliquée
- BIOD0001-3 - Gestion de la biodiversité

RAVT0001-1	<i>Wildlife population inventory and modelling techniques</i> - Philippe LEJEUNE, Simon LHOEST	Q1	9	9	-	2
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Prerequisite :

- ENVT0045-2 - Géomatique et télédétection appliquée
- FORE0004-3 - Dendrométrie et inventaires
- BIOD0007-1 - Méthodes d'analyse de la biodiversité

RAVT0002-1	<i>Eco-ethology and wildlife conservation</i> - Fany BROTCORNE, Cédric VERMEULEN - [9h AUTR]	Q1	9	-	[+]	2
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[...] Possibility to choose between 2 and 6 credits from the list of replacement courses

GFEN2.14 Future forest

Choose courses totalling 7 ECTS from the following :

FORE0032-1	<i>Innovative forestry workshops</i> - Hugues CLAESSENS, Gauthier LIGOT - [30h FT]	Q1	6	-	[+]	4
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FORE0033-1	<i>Forest genetic resources management</i> - Ludivine LASSOIS - [4h FT]	Q1	14	-	[+]	2
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[...] Possibility to choose between 2 and 6 credits from the list of replacement courses

GFEN2.15 Tropical forestry (Limited number of places - selection based on application file)

Notice : Module given abroad

FORE0042-1	<i>Tropical forestry</i>	Q1				6
	- <i>Certification of tropical forests</i> - JeanLouis DOUCET		6	18	-	
	- <i>Tropical agroforestry</i> - JeanLouis DOUCET		12	12	-	
	- <i>Applied tropical botany</i> - JeanLouis DOUCET		12	12	-	

Prerequisite :

- FORE0009-1 - Gestion durable des forêts tropicales

Period 2

GFEN2.21 Wood development

Choose courses totalling 7 ECTS from the following :

FORE0015-2	<i>Logging</i> - Tom DE MIL Prerequisite : FORE0025-1 - Expertise sylvicole ENVT0045-2 - Géomatique et télédétection appliquée	Q1	6	12	-	2
FORE0043-1	<i>Wood industries</i> - Tom DE MIL - [24h FT] Prerequisite : FORE0010-1 - Wood Science FORE0036-1 - Anatomie et identification des bois	Q1	18	-	[+]	4

[...] Possibility to choose between 2 and 6 credits from the list of replacement courses

GFEN2.22 Aquatic environments management

Choose courses totalling 7 ECTS from the following :

GESA0001-2	<i>Chemical and physico-chemical analysis of waters</i> - Giorgia PURCARO	Q1	6	12	-	2
FORE0017-1	<i>Ecology of fresh water organisms</i> - <i>Ecology and dynamics of fresh water fish populations</i> - Michaël OVIDIO - <i>Aquatic macro-invertebrates and bioindications</i> - Rudy CAPARROS MEGIDO, Frédéric FRANCIS	Q1		10	-	2
VEGE0021-1	<i>Animal communities and water quality</i> - Rudy CAPARROS MEGIDO, Frédéric FRANCIS	Q1	4	14	-	2

[...] Possibility to choose between 2 and 6 credits from the list of replacement courses

GFEN2.23 Plants and towns

Choose courses totalling 7 ECTS from the following :

PAYS0018-1	<i>Plants and the town: agriculture and the town</i> - Haissam JIAKLI - [12h FT, 10h Mon. WS] Prerequisite : BIOD0001-3 - Gestion de la biodiversité	Q1	8	-	[+]	3
PAYS0019-1	<i>Plants and the town: biodiversity and the town</i> - Grégory MAHY - [11h Proj.] Prerequisite : BIOD0001-3 - Gestion de la biodiversité	Q1	24	-	[+]	3

[...] Possibilité de choisir entre 3 et 6 crédits parmi la liste des cours de remplacement

GFEN 2.24 Very high-resolution remote sensing applied to the management of natural environments

ENVT3060-2	<i>Very high resolution remote sensing applied to the management of natural environments</i> - <i>Introduction</i> - JeanFrançois BASTIN, Philippe LEJEUNE, Adrien MICHEZ - <i>In-depth</i> - JeanFrançois BASTIN, Philippe LEJEUNE Corequisite : ENVT0045-2 - Géomatique et télédétection appliquée	Q1		12	24	-	6
				6	12	-	

Periods 1 and 2

GFEN 2.25 Data mining & Machine learning

Choose courses totalling 7 ECTS from the following :

STAT1213-1	<i>Multivariate analysis 1: data exploration and structuring</i> - Yves BROSTAU	Q1	9	9	-	2
INFO8008-2	<i>Multivariate analysis 2: data mining et machine learning</i> (english language) - <i>Introduction</i> - Yves BROSTAU, Juan Antonio FERNANDEZ PIERNA, Hélène SOYEURT - <i>In-depth study</i> - Yves BROSTAU, Juan Antonio FERNANDEZ PIERNA, Hélène SOYEURT	Q1		9	18	4
				3	6	

Corequisite :

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

[...] Possibility to choose between 2 and 6 credits from the list of replacement courses

Choose a language module from :

All year round

GFEN 2.31 English language

LANG2960-1 *Practice of specialized English for forests and natural areas: part 2 (level C1 - Presentation)* - Estelle MAYARD, Lelania SPERRAZZA - [36h AUTR] TA - 12 [+] 4

Corequisite :

FORE0028-1 - Projet de groupe

GFEN 2.32 Langue néerlandaise

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

GFEN 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 : INFO8008-2: prerequisite for the course INFO9013-1

Bloc d'aménagement du programme de l'année

Bridging courses Master in forests and natural areas engineering

Compulsory courses

GEST3028-2 *Accounting and management* - Thomas DOGOT Q1 22 26 - 4

GEST3773-1 *Management of quality* - Mohamed AYADI, Sébastien MASSART - [6h AUTR] Q1 18 - [+] 2

STAT2004-1 *Applied statistics : First part* - Yves BROSTAUX Q1 12 12 - 2

STAT2005-1 *Applied statistic : Second part* - Yves BROSTAUX Q2 12 12 - 2

Corequisite :

STAT2004-1 - Statistique appliquée : 1ère partie

PSYC5897-3 *Team, organization and change* - Daniel FAULX, Tiber MANFREDINI, Elise SEGHERS - [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 *Portfolio (Bachelor)* - Yves BECKERS, Hugues CLAESSENS, Gilles COLINET, Pierre DELAPLACE, Dorothee GOFFIN - [24h AUTR] TA - - [+] 2

Corequisite :

PSYC5897-3 - Equipe, organisation & changement

RSTG0008-1 *Internship (Bachelor)* - 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, Gauthier LIGOT, Benoît MERCATORIS	Q1	24	24	-	4
PHYS3036-1	<i>Environmental physics</i> - Bernard LONGDOZ	Q1	18	18	-	3
LANG2966-2	<i>English language: level 3</i> - Lelania SPERRAZZA - [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] 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	TA	6	6	[+]	6
HYDR0001-1	<i>General hydrology</i> - Aurore DEGRÉ	Q2	14	10	-	2

Option Forests and natural Areas Engineering

AGRO0001-1	<i>Basic principles of agriculture and agroecology</i> - Pierre DELAPLACE, Benjamin DUMONT - [4h Ex.]	Q2	16	4	[+]	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
FORE0021-2	<i>Tree species in temperate regions</i> - Arnaud MONTY	Q2	12	12	-	2
FORE0022-3	<i>Ecological foundations of the silviculture</i> - Hugues CLAESSENS - [12h AUTR]	Q2	12	2	[+]	2
INGE0001-4	<i>Strength of materials and elasticity, Introduction</i> - Laurent DUCHENE	Q2	24	-	-	2
PAYS0006-2	<i>Landscape ecology concepts</i> - Jan BOGAERT	Q2	12	12	-	2
PHYS3010-2	<i>Climate changes</i> - Bernard LONGDOZ	Q2	24	-	-	2

Optional activity

RSTG0012-1	<i>Additional internship</i> - Pierre DELAPLACE	TA	-	-	-	5
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Cours de remplacement :

GEOP0010-1	<i>Soil quality evaluation</i>	Q2	14	13	-	3
ENVT3129-1	<i>Evaluating sustainability</i> - Andrea DI MARIA - [2h SEM]	Q2	12	16	[+]	3
GERE0023-1	<i>Spatial analysis, organisation of grounds in the landscape and preservation of grounds</i> - [8h FT]	Q2	23	23	[+]	6
VEGE0037-1	<i>Innovative system of plant production</i> - <i>Urban agriculture</i> - Haïssam JIAKLI - <i>Developmental physiology applied to plant productions</i> - Pierre DELAPLACE - [6h FT] - <i>Physical parameters control of plant productions in controlled conditions</i> - Vincent LEEMANS	Q2	13	13	-	6
			12	-	[+]	
			9	-	-	
VEGE0028-1	<i>Methods for managing plant health</i> - Frédéric FRANCIS, Olivier GUELTON,	Q2	42	15	-	6

Eric HAUBRUGE, François HENRIET, Haissam JIJAKLI, Sébastien MASSART,
François VERHEGGEN

CHIM9321-1	<i>Immunology</i> - Bénédicte MACHIELS	Q2	27	-	-	4
ALIM0015-1	<i>Food sanitary safety</i> - Mohamed AYADI - [2h SEM]	Q1	16	6	[+]	2
ALIM0013-2	<i>Techniques for preparing and preserving foods</i> - <i>General concepts</i> - Christophe BLECKER - <i>In-depth study for bioengineers</i> - Christophe BLECKER	Q2	21	-	-	2
			3	-	-	
BIOL2015-3	<i>Molecular biology</i> - Patrick FICKERS	Q2	24	-	-	2