

Cycle view of the study programme

B1 Or Th Pr Au Cr

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 (B1 : 30Cr, B2 : 38Cr)

Periods 3 and 4

GFEN1.30 Core curriculum Q2

MANA0004-1 *Portfolio (Master)* - Yves BECKERS, Hugues CLAESSENS, Gilles COLINET, Pierre DELAPLACE, Dorothée GOFFIN - [24h AUTR] B1 TA - - [+] 2

LANG2959-1 *Practice of Scientific English for bioengineers (GFEN) (level B2+)* - Estelle MAYARD, Lelania SPERRAZZA - [36h AUTR] B1 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 *Forestry law and environmental law* - Etienne ORBAN DE XIVRY B1 Q2 24 - - 2

ECON2255-4 *Forest economics* - Gauthier LIGOT B1 Q2 9 9 - 2

FORE0012-1 *Forest products supply chain* - Tom DE MIL - [3h SEM] B1 Q2 9 6 [+] 2

GFEN1.32 Basic Forest Management Principles

FORE0009-1 *Sustainable management of tropical forests* - JeanLouis DOUCET B1 Q2 36 - - 3

FORE0005-3 *Multifunctional management of forests* - Anaïs GOREL, Philippe LEJEUNE - [4h SEM] B1 Q2 7 16 [+] 3

Corequisite :

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

Period 4

GFEN1.41 Forestry

FORE0008-2 *Site analysis and valuation* - Hugues CLAESSENS - [15h FT] B1 Q2 12 6 [+] 3

Corequisite :

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

FORE0025-1 *Expertise in silviculture* - Hugues CLAESSENS, Marc DUFRÈNE, Gauthier LIGOT - [16h FT] B1 Q2 10 1 [+] 3

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 *Management of large fauna in temperate climate* - Simon LHOEST - [7h FT] B1 Q2 14 - [+] 2

PAYS0001-2 *Ecological networks* - Marc DUFRÈNE, Grégory MAHY - [10h FT] B1 Q2 6 2 [+] 2

Corequisite :

BIOD0001-3 - Gestion de la biodiversité

FORE0003-2 *Participatory management of natural environments* - Cédric VERMEULEN - [9h AUTR] B1 Q2 9 3 [+] 2

Corequisite :

BIOD0001-3 - Gestion de la biodiversité

GFEN2.10 Group Project

FORE0028-1	<i>Group project</i> - Anaïs GOREL, Simon LHOEST - [54h AUTR]	B2	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	B2	Q2	-	-	-	24
RSTG0004-1	<i>Internship and professional relations</i> - Hugues CLAESSENS, Catherine COLAUX, Thomas DOGOT	B2	TA	12	-	-	8

Common core courses (B2 : 22Cr)

Choose 3 modules from : (B2 : 18Cr)

Period 1

GFEN2.11 Ecological engineering (B2 : 6Cr)

PAYS0014-1	<i>Ecological engineering</i> - Marc DUFRÈNE, Grégory MAHY - [23h FT]	B2	Q1	19	15	[+]	6
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GFEN2.12 Forest Health (B2 : 6Cr)

FORE0041-1	<i>Forest health</i> - Hugues CLAESSENS, Frédéric FRANCIS, Simon LHOEST, Sébastien MASSART - [10h FT]	B2	Q1	41	6	[+]	6
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GFEN2.13 Integrated management of wildlife (B2 : 6Cr)

Choose courses totalling 7 ECTS from the following : (B2 : 6Cr)

RAVT0003-1	<i>Management of large fauna in tropical areas</i> - Cédric VERMEULEN - [4h SEM, 3h FT]	B2	Q1	9	2	[+]	2
	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	B2	Q1	9	9	-	2
	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]	B2	Q1	9	-	[+]	2

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

GFEN2.14 Future forest (B2 : 6Cr)

Choose courses totalling 7 ECTS from the following : (B2 : 6Cr)

FORE0032-1	<i>Innovative forestry workshops</i> - Hugues CLAESSENS, Gauthier LIGOT - [30h FT]	B2	Q1	6	-	[+]	4
FORE0033-1	<i>Forest genetic resources management</i> - Ludivine LASSOIS - [4h FT]	B2	Q1	14	-	[+]	2

[...] 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) (B2 : 6Cr)

Notice : Module given abroad

FORE0042-1	<i>Tropical forestry</i>	B2	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 (B2 : 6Cr)

Choose courses totalling 7 ECTS from the following : (B2 : 6Cr)

FORE0015-2	<i>Logging</i> - Tom DE MIL	B2	Q1	6	12	-		2
	Prerequisite :							
	FORE0025-1 - Expertise sylvicole							
	ENVT0045-2 - Géomatique et télédétection appliquée							
FORE0043-1	<i>Wood industries</i> - Tom DE MIL - [24h FT]	B2	Q1	18	-		[+]	4
	Prerequisite :							
	FORE0010-1 - Wood Science							
	FORE0036-1 - Anatomie et identification des bois							

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

GFEN2.22 Aquatic environments management (B2 : 6Cr)

Choose courses totalling 7 ECTS from the following : (B2 : 6Cr)

GESA0001-2	<i>Chemical and physico-chemical analysis of waters</i> - Giorgia PURCARO	B2	Q1	6	12	-		2
FORE0017-1	<i>Ecology of fresh water organisms</i>	B2	Q1					2
	- <i>Ecology and dynamics of fresh water fish populations</i> - Michaël OVIDIO			10	-	-		
	- <i>Aquatic macro-invertebrates and bioindications</i> - Rudy CAPARROS MEGIDO, Frédéric FRANCIS			9	-	-		
VEGE0021-1	<i>Animal communities and water quality</i> - Rudy CAPARROS MEGIDO, Frédéric FRANCIS	B2	Q1	4	14	-		2

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

GFEN2.23 Plants and towns (B2 : 6Cr)

Choose courses totalling 7 ECTS from the following : (B2 : 6Cr)

PAYS0018-1	<i>Plants and the town: agriculture and the town</i> - Haissam JIJAKLI - [12h FT, 10h Mon. WS]	B2	Q1	8	-		[+]	3
	Prerequisite :							
	BIOD0001-3 - Gestion de la biodiversité							
PAYS0019-1	<i>Plants and the town: biodiversity and the town</i> - Grégory MAHY - [11h Proj.]	B2	Q1	24	-		[+]	3
	Prerequisite :							
	BIOD0001-3 - Gestion de la biodiversité							

[...] 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 (B2 : 6Cr)

ENVT3060-2	<i>Very high resolution remote sensing applied to the management of natural environments</i>	B2	Q1					6
	- <i>Introduction</i> - JeanFrançois BASTIN, Philippe LEJEUNE, Adrien MICHEZ			12	24	-		
	- <i>In-depth</i> - JeanFrançois BASTIN, Philippe LEJEUNE			6	12	-		
	Corequisite :							

ENVT0045-2 - Géomatique et télédétection appliquée

Periods 1 and 2

GFEN 2.25 Data mining & Machine learning (B2 : 6Cr)

Choose courses totalling 7 ECTS from the following : (B2 : 6Cr)

STAT1213-1	<i>Multivariate analysis 1: data exploration and structuring</i> - Yves BROSTAUX	B2	Q1	9	9	-	2
INFO8008-2	<i>Multivaried analysis 2: data mining et machine learning</i> (english language) - <i>Introduction</i> - Yves BROSTAUX, Juan Antonio FERNANDEZ PIERNA, Hélène SOYEURT - <i>In-depth study</i> - Yves BROSTAUX, Juan Antonio FERNANDEZ PIERNA, Hélène SOYEURT Corequisite : STAT1213-1 - Analyse multivariée 1 : exploration et structuration de données	B2	Q1	9	18	-	4
				3	6	-	

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

Choose a language module from : (B2 : 4Cr)

All year round

GFEN 2.31 English language (B2 : 4Cr)

LANG2960-1	<i>Practice of specialized English for forests and natural areas: part 2</i> (level C1 - Presentation) - Estelle MAYARD, Lelania SPERRAZZA - [36h AUTR] Corequisite : FORE0028-1 - Projet de groupe	B2	TA	-	12	[+]	4
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GFEN 2.32 Dutch language (B2 : 4Cr)

LANG9914-1	<i>Dutch Intermediate Level</i> (dutch language) - Catherine PEETERS	B2	TA	18	18	-	4
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GFEN 2.33 Spanish language (B2 : 4Cr)

LANG9915-1	<i>Spanish - beginners</i> - Valérie COYETTE	B2	TA	18	18	-	4
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Cours de remplacement :

GEOP0010-1	<i>Soil quality evaluation</i>	B2	Q2	14	13	-	3
ENVT3129-1	<i>Evaluating sustainability</i> - Andrea DI MARIA - [2h SEM]	B2	Q2	12	16	[+]	3
GERE0023-1	<i>Spatial analysis, organisation of grounds in the landscape and preservation of grounds</i> - [8h FT]	B2	Q2	23	23	[+]	6
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 conditions</i> - Vincent LEEMANS	B2	Q2	13	13	-	6
				12	-	[+]	
				9	-	-	
VEGE0028-1	<i>Methods for managing plant health</i> - Frédéric FRANCIS, Olivier GUELTON, Eric HAUBRUGE, François HENRIET, Haissam JIJAKLI, Sébastien MASSART, François VERHEGGEN	B2	Q2	42	15	-	6
CHIM9321-1	<i>Immunology</i> - Bénédicte MACHIELS	B2	Q2	27	-	-	4
ALIM0015-1	<i>Food sanitary safety</i> - Mohamed AYADI - [2h SEM]	B2	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	B2	Q2	21	-	-	2
				3	-	-	
BIOL2015-3	<i>Molecular biology</i> - Patrick FICKERS	B2	Q2	24	-	-	2

Optional activities (B1 : 14Cr, B2 : 4Cr)

RSTG0011-1	<i>Additional internship</i> - Pierre DELAPLACE	B1	TA	-	-	-	5
HULG9547-1	<i>French course for IN mobility students (S1)</i> - N...	B1	Q1	-	-	-	3
HULG9548-1	<i>French course for IN mobility students (S2)</i> - N...	B1	Q2	-	-	-	3
HULG9546-1	<i>Erasmus: integration weeks</i> - N...	B1	Q1	-	-	-	3
INFO9013-1	<i>Multivaried analysis 3: Data mining et Machine Learning: advanced</i> (english language) - Yves BROSTAU, David COLIGNON, Benoît MERCATORIS, Hélène SOYEURT	B2	Q2	12	28	-	4

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

Focus compulsory courses (B1 : 30Cr)

Period 1

GFEN1.11 Inventory and biodiversity management

ENVT3050-1	<i>Quantification of ecosystem services</i> - Marc DUFRÈNE - [6h AUTR]	B1	Q1	9	5	[+]	2
ECON2248-1	<i>Environmental economy</i> - Kevin MARÉCHAL	B1	Q1	18	-	-	2
BIOD0001-3	<i>Biodiversity management</i> - Arnaud MONTY - [6h SEM]	B1	Q1	18	-	[+]	2

GFEN1.12 Quantification of the natural resources

FORE0004-3	<i>Forest mensuration and forest inventory</i> - Gauthier LIGOT - [3h FT]	B1	Q1	15	18	[+]	4
PAYS0007-2	<i>Landscape analysis and modeling</i> (english language) - JeanFrançois BASTIN	B1	Q1	8	8	-	2

Period 2

GFEN1.21 Biodiveristy analysis methods

BIOD0007-1	<i>Biodiveristy analysis methods</i> - <i>Community</i> - Marc DUFRÈNE - [8h AUTR] - <i>Populations</i> - Arnaud MONTY	B1	Q1	12	12	[+]	6
	Corequisite : BIOD0001-3 - Gestion de la biodiversité LANG2959-1 - Pratique de l'anglais scientifique de bioingénieur (GFEN) (niveau B2+)			15	9	-	

GFEN1.22 Geomatics applied to environmental management

ENVT0045-2	<i>Geomatics and applied remote sensing</i> - <i>Introduction</i> - JeanFrançois BASTIN, Philippe LEJEUNE - <i>In-depth</i> - JeanFrançois BASTIN, Philippe LEJEUNE	B1	Q1	16	22	-	6
				8	11	-	

GFEN1.23 Wood

FORE0010-1	<i>Wood Science</i> (english language) - Tom DE MIL - [9h SEM, 2h FT]	B1	Q1	18	7	[+]	4
FORE0036-1	<i>Timber anatomy and identification</i> - Tom DE MIL	B1	Q1	10	10	-	2

Bridging courses Master in forests and natural areas engineering

Compulsory courses (B0 : 60Cr)

GEST3028-2	<i>Accounting and management</i> - Thomas DOGOT	B0	Q1	22	26	-	4
GEST3773-1	<i>Management of quality</i> - Mohamed AYADI, Sébastien MASSART - [6h AUTR]	B0	Q1	18	-	[+]	2
STAT2004-1	<i>Applied statistics : First part</i> - Yves BROSTAU	B0	Q1	12	12	-	2

STAT2005-1	<i>Applied statistic : Second part</i> - Yves BROSTAUX Corequisite : STAT2004-1 - Statistique appliquée : 1ère partie	B0	Q2	12	12	-	2
PSYC5897-3	<i>Team, organization and change</i> - Daniel FAULX, Tiber MANFREDINI, Elise SEGHERS - [44h SEM] Corequisite : MANA0003-1 - Portfolio (Bachelier) GEST3773-1 - Gestion de la qualité GEST3028-2 - Comptabilité et gestion des entreprises	B0	TA	4	-	[+]	2
MANA0003-1	<i>Portfolio (Bachelor)</i> - Yves BECKERS, Hugues CLAESSENS, Gilles COLINET, Pierre DELAPLACE, Dorothée GOFFIN - [24h AUTR] Corequisite : PSYC5897-3 - Equipe, organisation & changement	B0	TA	-	-	[+]	2
RSTG0008-1	<i>Internship (Bachelor)</i> - Hélène SOYEURT - [18h AUTR] Corequisite : PSYC5897-3 - Equipe, organisation & changement GEST3028-2 - Comptabilité et gestion des entreprises GEST3773-1 - Gestion de la qualité	B0	TA	6	-	[+]	2
BIOL2044-1	<i>Plant physiology</i> - Patrick DU JARDIN	B0	Q1	27	9	-	3
BIOL2013-2	<i>General microbiology, Introduction</i> - Patrick FICKERS, Philippe JACQUES	B0	Q1	16	8	-	2
ENVT2044-1	<i>General ecology</i> - Grégory MAHY, Arnaud MONTY	B0	Q1	24	-	-	2
INFO2038-1	<i>Computer science and algorithmic</i> - Hélène SOYEURT	B0	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	B0	Q1	24	24	-	4
PHYS3036-1	<i>Environmental physics</i> - Bernard LONGDOZ	B0	Q1	18	18	-	3
LANG2966-2	<i>English language: level 3</i> - Lelania SPERRAZZA - [48h E-Lrng]	B0	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	B0	TA	6	6	[+]	6
HYDR0001-1	<i>General hydrology</i> - Aurore DEGRÉ	B0	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.]	B0	Q2	16	4	[+]	2
BIOL2015-3	<i>Molecular biology</i> - Patrick FICKERS Corequisite : BIOL2016-3 - Génétique générale	B0	Q2	24	-	-	2
BIOL2016-3	<i>General genetics</i> - Nicolas GENGLER, Ludivine LASSOIS Corequisite : BIOL2015-3 - Biologie moléculaire	B0	Q2	12	12	-	2
FORE0021-2	<i>Tree species in temperate regions</i> - Arnaud MONTY	B0	Q2	12	12	-	2
FORE0022-3	<i>Ecological foundations of the silviculture</i> - Hugues CLAESSENS - [12h AUTR]	B0	Q2	12	2	[+]	2
INGE0001-4	<i>Strength of materials and elasticity, Introduction</i> - Laurent DUCHENE	B0	Q2	24	-	-	2

PAYS0006-2	<i>Landscape ecology concepts</i> - Jan BOGAERT	B0	Q2	12	12	-	2
PHYS3010-2	<i>Climate changes</i> - Bernard LONGDOZ	B0	Q2	24	-	-	2
Optional activity (B0 : 5Cr)							
RSTG0012-1	<i>Additional internship</i> - Pierre DELAPLACE	B0	TA	-	-	-	5