

Access conditions to the Master (http://www.ulg.ac.be/cms/c_274707/masters-bioingenieur-4-grades)

First Year

First semester
Period 1

Compulsory courses

STE1.11 Fluid mechanics and business management

GEST3028-2	<i>Accounting and management</i> - Thomas DOGOT, Philippe LEBAILLY	24	24	-	4
HYDR0007-3	<i>Fluid mechanics</i> - Charles DEBOUCHE	14	10	-	2

STE1.12 Soil, geotechnics and metrology

GERE0008-3	<i>Soil mechanics, part 1</i> - Robert CHARLIER, Frédéric COLLIN	12	12	-	2
GERE0006-4	<i>Environmental metrology, part 1</i> - MarieFrance DESTAIN	12	12	-	2
HYDR0006-2	<i>Modelling of transfers in soils, 1st part</i> - Aurore DEGRÉ	12	12	-	2

Period 2

Compulsory courses

STE1.21 Group project

GERE0015-1	<i>Group project</i> - COLLÉGIALITÉ	-	-	-	6
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STE1.22 Statistical analysis, geotechnics and metrology

GERE0006-5	<i>Environmental metrology, part 2</i> - MarieFrance DESTAIN	12	12	-	2
GERE0008-4	<i>Soil mechanics, part 2</i> - Robert CHARLIER, Frédéric COLLIN	12	12	-	2
STAT1213-1	<i>Elements of multivariate statistical methods</i> - Rodolphe PALM	12	12	-	2

Optional courses

Choose one module from :

STE1.23 Machinery and constructions 1/2

GERE0016-1	<i>Machine elements, 1st part</i> - MarieFrance DESTAIN	18	18	-	3
GERE0003-2	<i>Theory of structural calculations, 1st part</i> - Pierre LATTEUR	36	-	-	3

STE1.24 Environmental management

ENVT2049-2	<i>Introduction to environmental assessment</i> - Charles DEBOUCHE	12	-	-	2
HYDR0011-2	<i>Ecohydrology</i> - Aurore DEGRÉ - [12h FT]	6	-	[+]	2
GESA0001-2	<i>Chemical and physico-chemical analysis of waters</i> - JeanPaul BARTHELEMY	8	16	-	2

Second semester
Period 3

Optional courses

Choose one group of modules from "Elements of rural engineering + Machinery and construction 2/2" or "Soil components and environmental quality (module 1 + 2) :

Notice : if the module "Machinery and construction 1/2" is chosen during the 1st period, then the modules "Elements of rural engineering" and "Machinery and construction 2/2" are compulsory.

if the module "Environmental management" is chosen during the 2nd period, then the modules "Soil components and environmental quality" are compulsory.

Elements of rural engineering and construction engineering 2/2

Requisite

"STE1.23 Machines et constructions 1/2"

STE1.31 Element of rural engineering

HYDR0010-1	<i>Open channel hydraulics</i> - Charles DEBOUCHE	10	14	-	2
GERE0007-3	<i>Digital electronics, first part</i> - Bernard HEINESCH	16	8	-	2
HYDR0004-1	<i>Irrigation</i> - Charles DEBOUCHE, Aurore DEGRÉ	24	-	-	2

STE1.32 Machinery and construction 2/2

Study programmes 2012-2013

Gembloux Agro-Bio Tech

Master in Environmental Bioengineering

GERE0011-2	<i>Building physics and special techniques, 1st part</i> - Frédéric LEBEAU	24	12	-	3
GERE0017-1	<i>Machine elements, 2nd part</i> - MarieFrance DESTAIN - [3h AUTR]	15	18	[+]	3

Soil components and environmental quality

Requisite "STE1.24 Gestion de l'environnement"

STE1.33 Soil components and environmental quality

GEOP0007-2	<i>Soil components and the environment, 1st part</i> - Jean Marie MARCOEN - [4h AUTR]	24	8	[+]	3
HYDR0005-3	<i>Hydrogeology and groundwater management</i> - Jean Marie MARCOEN - [4h AUTR, 4h SEM, 8h FT]	14	6	[+]	3

STE1.34 Soil components and environmental quality

CHIM9249-1	<i>Microbial ecology</i> - Frank DELVIGNE	18	6	-	2
GEOP0003-2	<i>Pedogenesis and international system of reference</i> - Laurent BOCK - [6h AUTR]	18	-	[+]	2
GEOP0007-3	<i>Soil components and the environment, 2nd part</i> - Jean Marie MARCOEN	18	6	-	2

Period 4

Compulsory courses

STE1.41 Professional immersion

MANA0001-1	<i>Human resources and industrial relations management</i> - Philippe LEPOIVRE - [8h AUTR]	-	-	[+]	2
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RSTG0003-1	<i>Placement</i> - Frédéric LEBEAU	-	-	-	4
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Period 5

Compulsory courses

STE1.51 Data acquisition and modelling

HYDR0003-2	<i>Applied hydrology</i> - Aurore DEGRÉ	6	18	-	2
PHYS3009-3	<i>Exchange Models in biosystems</i> - Marc AUBINET	-	24	-	2
HYDR0006-3	<i>Modelling of transfers in soils, 2nd part</i> - Aurore DEGRÉ	12	12	-	2

Optional courses

Chose a module between : "Complement of engineering" and "applied pedology" :

Notice : if the module 'Machines and construction 1/2' was chosen in Period 2, then the module 'Additional Engineering' is compulsory.

if the module 'Environmental management' is chosen in Period 2 then the module 'Applied Pedology' is compulsory.

STE1.52 Complements of engineering

Requisite "Eléments de génie rural et Machines et construction 2/2"

ENVT3010-2	<i>Complement of surveying</i> - Charles DEBOUCHE	8	10	-	2
HYDR0008-1	<i>Hydraulic pump and network</i> - Charles DEBOUCHE	10	14	-	2
GERE0003-4	<i>Theory of structural calculations, 2nd part</i> - Pierre LATTEUR	24	-	-	2

STE1.53 Applied pedology

Requisite "STE1.24 Gestion de l'environnement"
"Constituants des sols et qualité des milieux"

FORE0008-2	<i>Site analysis and valuation</i> - Hugues CLAESSENS	14	22	-	3
GEOP0005-2	<i>Applied regional geomorphopedology</i> - Laurent BOCK - [18h FT]	12	6	[+]	3

Second year

First semester

Optional courses

Choose one option from the following :

"Environmental sciences and technologies" courses programme

Period 1

STE2.11 Corporate and projects management

GEST3028-2	<i>Accounting and management</i> - Thomas DOGOT, Philippe LEBAILLY	24	24	-	4
GEST3020-1	<i>Conceiving and economic assessment of project</i> - Baudouin MICHEL - [12h SEM]	12	-	[+]	2

STE2.12 Environmental techniques

CHIM9248-1	<i>Basic principles of wastewater treatments</i> - Frank DELVIGNE	24	-	-	2
ENVT0036-1	<i>Sanitation and soil improvement</i> - Gilles COLINET - [12h AUTR]	6	-	[+]	2
HYDR0009-2	<i>Hydraulic engineering and environmental aspects</i> - Aurore DEGRÉ - [3h AUTR]	15	6	[+]	2

Period 2

Choose one module from :

STE2.21 Machines 2/2

	<u>Prerequisite</u>	"STE1.23 Machines et constructions 1/2"			
GERE0018-1	<i>Building physics and special techniques (2nd part)</i> - Frédéric LEBEAU - [6h AUTR]	6	12	[+]	2
GERE0007-2	<i>Digital electronics, second part</i> - Bernard HEINESCH	6	18	-	2
GERE0012-2	<i>Automatics and robotics in agriculture</i> - MarieFrance DESTAIN	12	12	-	2

STE2.22 Environmental management

ENVT2049-2	<i>Introduction to environmental assessment</i> - Charles DEBOUCHE	12	-	-	2
ECON2248-1	<i>Environmental economy</i> - Kevin MARÉCHAL	24	-	-	2
ENVT2052-1	<i>The environmental effects of projects and plans</i> - Catherine DUBOIS - [6h SEM]	18	-	[+]	2

Choose one module from :

STE2.23 Land settlement

GEAT0003-1	<i>Introduction to land planning</i> - Jacques TELLER	24	-	-	2
PAYS0007-2	<i>Introduction to landscape analysis and modeling</i> - Jan BOGAERT	12	12	-	2
GEOL0009-1	<i>Space analysis and soil mapping</i> - Gilles COLINET - [6h AUTR]	6	6	[+]	2

STE2.24 Plants-Ecosystem-Climate (PEC) relations

GBLX0156-1	<i>Theoretical aspects of PEC relationships</i> - Marc AUBINET	12	12	-	2
GBLX0157-1	<i>Experimental aspects of PEC relationships</i> - Bernard HEINESCH	12	12	-	2
GBLX0158-1	<i>Impact of disruptions on PEC exchanges</i> - Christine MOUREAUX	12	12	-	2

Choose one module from :

STTE2.25 Aquatic environments management

GESA0001-2	<i>Chemical and physico-chemical analysis of waters</i> - JeanPaul BARTHELEMY	8	16	-	2
HYDR0011-2	<i>Ecohydrology</i> - Aurore DEGRÉ - [12h FT]	6	-	[+]	2
VEGE0021-1	<i>Limnology</i> - Frédéric FRANCIS - [4h SEM]	10	10	[+]	2

STE2.26 Environmental technologies

ENVT0037-1	<i>Machines and environment</i> - MarieFrance DESTAIN - [3h AUTR]	9	12	[+]	2
ENVT2053-1	<i>Waste management</i> - Luc MINNE - [3h FT]	21	-	[+]	2
ENVT2054-1	<i>Renewable energies</i> - Yves SCHENKEL - [4h FT]	20	-	[+]	2

HEC-ULg programme

GEST3001-1	<i>People management and organisation</i> - Jocelyne ROBERT	24	24	-	4
GEST3002-1	<i>Human Resources</i> - Jocelyne ROBERT	24	-	-	2
GEST3003-1	<i>Competitive strategy in the marketplace</i> (english language) - Michael GHILISSEN	16	16	-	3
GEST3004-1	<i>Marketing (operations and management)</i> (english language) - Michael GHILISSEN	16	16	-	3
GEST3005-2	<i>Accountancy and Finance</i> - Jacques BERWART	24	24	-	4
GEST3006-1	<i>Operations and supply chain management I</i> (english language) - Yasemin ARDA	16	16	-	3
GSTG3001-1	<i>Business plan</i> - COLLÉGIALITÉ	-	30	-	4

Study programmes 2012-2013

Gembloux Agro-Bio Tech

Master in Environmental Bioengineering

GSTG3002-1 *Functional analysis of a company* - COLLÉGIALITÉ - [30h Internship] - - [+] **4**

Choose one of the following courses :

GEST3010-1 *Operations and supply chain management II* - Sabine LIMBOURG 16 16 - **3**

GEST3011-2 *ICT for Business* - Alain DUBOIS 16 16 - **3**

GEST3012-1 *Financial and actuarial modelling* - Louis ESCH 16 16 - **3**

Second semester

Compulsory courses

Period 3

STE2.31 Dissertation

RTFE0002-1 *Final dissertation (bioengineering)* - N... - - - **27**

LANG0907-2 *English language : scientific communication* - Sophie DEPOTERRE, Dany ETIENNE - 36 - **3**