

Two-year master program

First Year

First semester

Teaching Period One and Two

Compulsory courses

STE1.10 Core curriculum 1 STE

| | | | | | | |
|------------|--|----|----|----|-----|---|
| GERE0015-1 | <i>Group project</i> - Marc AUBINET, COLLÉGIALITÉ - [60h AUTR] | Q1 | - | - | [+] | 5 |
| HYDR0012-1 | <i>Transmission and distribution of fluid</i> - Sarah GARRÉ | Q1 | 12 | 12 | - | 2 |
| ENVT0045-1 | <i>Geomatics and applied remote sensing</i> - Philippe LEJEUNE | Q1 | 28 | 44 | - | 5 |
| GEOP0003-2 | <i>Pedogenesis, international referential of classification and soil hydrodynamics</i> - Gilles COLINET, JeanThomas CORNELIS, Aurore DEGRÉ | Q1 | 36 | 36 | - | 6 |
| STAT1213-1 | <i>Multivariate statistical analysis</i> - Yves BROSTAUX | Q1 | 12 | 12 | - | 2 |
| GERE0019-1 | <i>Soil mechanics and geotechnics</i> - Robert CHARLIER, Frédéric COLLIN | Q1 | 24 | 24 | - | 4 |
| GERE0020-1 | <i>Environmental metrology</i> - Benoît MERCATORIS | Q1 | 24 | 24 | - | 4 |

Second semester

Period 3

Compulsory courses

STE1.31 Core curriculum 2

| | | | | | | |
|------------|--|----|----|----|---|---|
| GERE0022-1 | <i>Ecotechnologies</i> - MarieFrance DESTAIN | Q2 | 24 | 24 | - | 4 |
| GEOP0010-1 | <i>Soil quality evaluation</i> - Gilles COLINET, Aurore DEGRÉ, Sarah GARRÉ | Q2 | 18 | 18 | - | 3 |
| HYDR0013-1 | <i>Modelling of transfers in soils</i> - Gilles COLINET, Aurore DEGRÉ, Benoît MERCATORIS | Q2 | 24 | 24 | - | 4 |
| PHYS3009-3 | <i>Exchange Models in biosystems</i> - Marc AUBINET | Q2 | - | 24 | - | 2 |

Period 4

Compulsory courses

STE1.41 Placement

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|------------|---|----|---|---|---|---|
| MANA0004-1 | <i>Portfolio (Master 1)</i> - Philippe LEPOIVRE | TA | - | - | - | 2 |
| RSTG0003-1 | <i>Internship and professional relations</i> - Frédéric LEBEAU, Philippe LEPOIVRE | Q2 | - | - | - | 3 |

Period 5

Optional courses

Choose one module from :

STE1.51 Spatial analysis, soil organisation in the landscape and soil conservation

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|------------|---|----|----|----|-----|---|
| GERE0023-1 | <i>Spatial analysis, soil organisation in the landscape and soil conservation</i> - Gilles COLINET, JeanThomas CORNELIS, Aurore DEGRÉ - [6h FT] | Q2 | 33 | 33 | [+] | 6 |
|------------|---|----|----|----|-----|---|

STE1.52 Theory of structural calculations

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|------------|---|----|----|----|---|---|
| GERE0021-1 | <i>Theory of structural calculations</i> - Pierre LATTEUR - Suppl : Vincent DENOËL, Laurent DUCHENE, JeanMarc FRANSSSEN | Q2 | 36 | 36 | - | 6 |
|------------|---|----|----|----|---|---|

Optional courses

Choose one module from :

STE1.53 Fluid mechanics applied to rural development

| | | | | | | |
|------------|---|----|----|----|---|---|
| | <u>Requisite</u> "" | | | | | |
| HYDR0014-1 | <i>Evaluation of cultures water needs</i> - Sarah GARRÉ | Q2 | 12 | 12 | - | 2 |
| HYDR0004-1 | <i>Irrigation</i> - Sarah GARRÉ | Q2 | 24 | - | - | 2 |

STE1.54 Automation

| | | | | | | |
|----------------|--|----|----|----|---|---|
| GERE0024-1 | <i>Mitigation technology of environmental impacts of agricultural practices</i> - MarieFrance DESTAIN, Frédéric LEBEAU | Q2 | 12 | 12 | - | 2 |
| GERE0007-3 | <i>Digital electronics</i> - Bernard HEINESCH | Q2 | 16 | 8 | - | 2 |
| All year round | | | | | | |
| Period 6 | | | | | | |

Compulsory course

STE1.61 English

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|------------|---|----|---|---|-----|---|
| LANG2956-1 | <i>Practice of specialized English for Environmental Sciences and Technology: part 1</i> - Gilles COLINET, Aurore DEGRÉ, Sophie DEPOTERRE, Philippe LEJEUNE, Estelle MAYARD, Benoît MERCATORIS - [48h AUTR] | TA | - | - | [+] | 4 |
|------------|---|----|---|---|-----|---|

Second year

First semester

Compulsory courses (period 1 and 2)

STE2.10 English

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|------------|--|----|---|----|-----|---|
| LANG2957-1 | <i>Practice of specialized English for Environmental Sciences and Technology: part 2</i> - Gilles COLINET, Sophie DEPOTERRE, Philippe LEJEUNE, Estelle MAYARD - [24h AUTR] | Q1 | - | 12 | [+] | 3 |
|------------|--|----|---|----|-----|---|

Optional courses

Choose one option from the following :

"Environmental sciences and technologies" courses programme

Period 1

STE2.11 Soil and project management

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|------------|---|----|----|----|-----|---|
| GEOP0006-3 | <i>Soil quality evaluation and management</i> - Gilles COLINET - [6h FT] | Q1 | 18 | 12 | [+] | 2 |
| GEST3020-1 | <i>Conceiving and economic assessment of project : food crop and agroforestry</i> - Baudouin MICHEL - [12h SEM] | Q1 | 12 | - | [+] | 2 |

STE2.12 Environmental techniques

| | | | | | | |
|------------|---|----|----|---|-----|---|
| CHIM9248-1 | <i>Basic principles of wastewater treatments</i> - Frank DELVIGNE | Q1 | 24 | - | - | 2 |
| ENVT0036-1 | <i>Sanitation and soil improvement</i> - Gilles COLINET - [12h AUTR] | Q1 | 6 | - | [+] | 2 |
| HYDR0009-2 | <i>Hydraulic engineering and environmental aspects</i> - Aurore DEGRÉ - [3h AUTR] | Q1 | 15 | 6 | [+] | 2 |

Period 2

STE2.21 Geomatics applied to the environmental management

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|------------|--|----|----|----|---|---|
| ENVT0045-1 | <i>Geomatics and applied remote sensing</i> - Philippe LEJEUNE | Q1 | 28 | 44 | - | 5 |
|------------|--|----|----|----|---|---|

Choose one module from :

STE2.22 Machines 2/2

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|------------|---|----|----|----|-----|---|
| | <u>Prerequisite</u> "" | | | | | |
| | Prerequisite "STE1.23 Machines and constructions 1/2" | | | | | |
| GERE0018-1 | <i>Building physics and special techniques (2nd part)</i> - Frédéric LEBEAU - [6h AUTR] | Q1 | 6 | 12 | [+] | 2 |
| GERE0007-2 | <i>Digital electronics, 2e partie</i> - Bernard HEINESCH | Q1 | 6 | 18 | - | 2 |
| GERE0012-2 | <i>Automatics and robotics in agriculture</i> - MarieFrance DESTAIN | Q1 | 12 | 12 | - | 2 |

STE2.23 Environmental management

| | | | | | | |
|------------|--|----|----|---|-----|---|
| ECON2248-1 | <i>Environmental economy</i> - Kevin MARÉCHAL | Q1 | 24 | - | - | 2 |
| ENVT2052-1 | <i>Environmental impact : concepts and methodology</i> - Catherine DUBOIS - [6h SEM] | Q1 | 18 | - | [+] | 2 |
| GEOL0009-1 | <i>Space analysis and soil mapping</i> - Gilles COLINET - [6h AUTR] | Q1 | 6 | 6 | [+] | 2 |

Choose one module from :

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

| | | | | | | |
|------------|---|----|----|----|---|---|
| GBLX0156-1 | <i>Theoretical aspects of PEC relationships</i> - Marc AUBINET | Q1 | 12 | 12 | - | 2 |
| GBLX0157-1 | <i>Experimental aspects of PEC relationships</i> - Bernard HEINESCH | Q1 | 12 | 12 | - | 2 |
| GBLX0158-1 | <i>Impact of disruptions on PEC exchanges</i> - Christine MOUREAUX | | 12 | 12 | - | 2 |

STE2.25 Environmental technology

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|------------|---|----|----|----|-----|---|
| ENVT0037-1 | <i>Machines and environment</i> - MarieFrance DESTAIN - [3h AUTR] | Q1 | 9 | 12 | [+] | 2 |
| ENVT2053-1 | <i>Physical aspects of waste management</i> - Luc MINNE - [3h FT] | Q1 | 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 | Q1 | 24 | 24 | - | 4 |
| GEST3002-1 | <i>Human Resources</i> - Jocelyne ROBERT | Q1 | 24 | - | - | 2 |
| GEST3003-1 | <i>Competitive strategy in the marketplace</i> (english language) - Michael GHILISSEN | Q1 | 16 | 16 | - | 3 |
| GEST3004-1 | <i>Marketing (operations and management)</i> (english language) - Michael GHILISSEN | Q1 | 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 | Q1 | 16 | 16 | - | 3 |
| GSTG3001-1 | <i>Business plan</i> - COLLÉGIALITÉ | | - | 30 | - | 4 |
| GSTG3002-1 | <i>Functional analysis of a company</i> - COLLÉGIALITÉ - [30h Internship] | | - | - | [+] | 4 |

Choose one of the following courses :

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|------------|--|----|----|----|---|---|
| GEST3010-1 | <i>Operations and supply chain management II</i> - Sabine LIMBOURG | Q1 | 16 | 16 | - | 3 |
| GEST3011-2 | <i>ICT for Business</i> - Alain DUBOIS | Q1 | 16 | 16 | - | 3 |
| GEST3012-1 | <i>Financial and actuarial modelling</i> - Louis ESCH | Q1 | 16 | 16 | - | 3 |
| GEST3045-1 | <i>Project management</i> (english language) - Etienne DALOZE | | 30 | - | - | 5 |

Second semester

Compulsory courses

Period 3

STE2.31 Dissertation

| | | | | | | |
|------------|--|----|---|---|-----|----|
| RTFE2004-1 | <i>Final thesis</i> - N... | | - | - | - | 27 |
| MANA0005-1 | <i>Portfolio (MA2)</i> - Philippe LEPOIVRE | TA | - | - | - | 2 |
| LANG2958-1 | <i>English language : final thesis</i> - Sophie DEPOTERRE, Estelle MAYARD - [12h AUTR] | Q2 | - | - | [+] | 1 |