

## First Year

### Compulsory courses

#### Cross-disciplinary activities

ENVT0010-1	<i>Integrated approach to environmental issues</i> - Dorothee DENAYER, François MELARD, AnneClaude ROMAIN, Nathalie SEMAL	15	36	-	4
ENVT0846-2	<i>Introduction to Sustainable Development</i> - Pierre M. STASSART	18	6	-	2
ENVT0849-2	<i>Collection and treatment of environmental information including systems analysis</i> - Philippe ANDRE, AnneClaude ROMAIN	18	18	-	3
ENVT0039-2	<i>Modes of environmental knowledge</i> - François MELARD	24	12	-	3
ENVT3044-1	<i>Scientific approaches to the environment</i> - Philippe ANDRE, JeanJacques BOREUX, Gauthier EPPE, N..., AnneClaude ROMAIN	60	15	-	6

#### Environment and resources

ENVT3045-1	<i>Ecosystems : conditions, resources and impact of anthropic activities, Part 1 : conditions, resources, impacts and management</i> - Célia JOAQUIMJUSTO, Emmanuël SÉRUSIAUX	51	18	-	5
ENVT3045-2	<i>Ecosystems : conditions, resources and impact of anthropic activities, part 2 : industrial activities, transport and emission reduction technologies</i> - Angélique LÉONARD, Roberto RENZONI	18	6	-	2
ENVT3046-1	<i>Natural resources (water, energy) and humain pressure</i> - Part 1 : <i>Geological map</i> - Frédéric BOULVAIN - Part 2 : <i>Groundwater</i> - Philippe ORBAN	4	12	-	3
ENVT3046-2	<i>Natural resources (water, energy) and humain pressure, Part 3 : Energy resources</i> - JeanMarie HAUGLUSTAINE	16	8	-	3

#### Society and environment

SPOL0382-2	<i>Foundations of environmental policies/law</i> - Sylviane LEPRINCE	36	12	-	4
ECON2270-1	<i>Environmental economy, Part 1 : Elements of economy for environmental sciences</i> - Nadia DE ZOTTI	18	5	-	2
ECON2270-2	<i>Environmental economy, Part 2 : Economy and environment</i> - HenryJean GATHON, Axel GAUTIER, Michel HERMANS, Bernard JURION	24	5	-	3

### Optional courses

#### Optional themes modules

With the agreement of the council of studies choose a module among the following :

#### Energy issues

ENVT0867-1	<i>Environmental performance of buildings</i> - JeanMarie HAUGLUSTAINE	20	20	-	3
ENVT0019-2	<i>Energy balance and CO2 emissions on a building life-cycle</i> - Part 1 : <i>Buildings to be built</i> - Philippe ANDRE, JeanMarie HAUGLUSTAINE - Part 2 : <i>Existing buildings</i> - Philippe ANDRE, JeanMarie HAUGLUSTAINE	20	20	-	4
SPOL2306-1	<i>Policy of Energy</i> - Part 1 : <i>Policies to reduce emissions</i> - Quentin MICHEL - Suppl : Maxime HABRAN - Part 2 : <i>Regional and local policies</i> - JeanMarie HAUGLUSTAINE	9	9	-	3

#### Instruments for governance

ENVT0013-1	<i>Assessment tools (impact assessment, LCA)</i> - Alain HANSON, Nathalie SEMAL	30	20	-	3
ENVT0014-2	<i>Multicriteria analysis</i> - JeanJacques BOREUX	15	15	-	2
ENVT0015-2	<i>Tools of environmental management (EMS, prospective)</i> - Nathalie SEMAL, Pierre M. STASSART	24	12	-	3
ENVT3015-1	<i>Analysis of project and communication</i> - MarieClaire BILOCQ, Dorothee DENAYER, N...	8	16	-	2

With the approval of the Board of Studies, choose one module from :

#### Environment, risks and health

Master en sciences et gestion de l'environnement, à finalité spécialisée en  
énergies renouvelables

ENVT3016-1	<i>Environmental toxicology and health</i> - Part 1 : <i>Ecotoxicology and quantification of ecotoxicological risk</i> - Célia JOAQUIMJUSTO	24	18	-	<b>6</b>
	- Part 2 : <i>Environmental toxicology and health impacts</i> - Corinne CHARLIER	12	18	-	
ENVT3017-1	<i>Risk management and health</i> - Part 1 : <i>Introduction to risk management</i> - N..., Pierre OZER	12	12	-	<b>4</b>
	- Part 2 : <i>Microbiological risk</i> - HenryMichel CAUCHIE	12	12	-	
<b>Lang management</b>					
ENVT3018-1	<i>Mobility and sustainable development</i> - Pierre LANNOY	12	12	-	<b>2</b>
ENVT2027-2	<i>Application of teledetection and geographical information systems for environmental management</i> - Bernard TYCHON	16	32	-	<b>4</b>
ARCH3257-1	<i>Spatial planning</i> - Jacques TELLER	20	30	-	<b>4</b>

*Notice :*

students wishing to specialise in Renewable Energy in the second year must take, in the second year, 30 credits from the "Energy" course specialising in "Buildings" at the University of Luxembourg in the context of the partnership agreement established between the two universities. The 30 credits to be followed at the ULg during the first semester will be chosen, with the approval of the Board of Studies, on the basis of the first year programme.

**Specific refresher courses (organised in Gembloux Agro-Bio Tech) for students who wish to choose the professional focus in biological methods of effluents recovery in the 2nd year**

Depending on the previous training of the student and with the approval of the Board of Studies, choose, if necessary, courses totalling maximum 12 ECTS from :

CHIB0010-1	<i>Basis of physical chemistry applied to environment</i> - Magali DELEU	-	-	-	<b>2</b>
HYDR0001-1	<i>General Hydrology</i> - Aurore DEGRÉ	24	-	-	<b>2</b>
HYDR0002-1	<i>Water flow in soils</i> - Aurore DEGRÉ	24	-	-	<b>2</b>
HYDR0006-2	<i>Modelling of transfers in soils, 1st part</i> - Aurore DEGRÉ	12	12	-	<b>2</b>
HYDR0011-1	<i>Ecohydrology</i> - Aurore DEGRÉ - [6h FT]	12	6	[+]	<b>2</b>
CHIM9249-1	<i>Microbial ecology</i> - Frank DELVIGNE	18	6	-	<b>2</b>
CHIM9248-1	<i>Basic principles of wastewater treatments</i> - Frank DELVIGNE	24	-	-	<b>2</b>
BIOL2013-2	<i>General microbiology, 1st part</i> - Micheline VANDENBOL	16	8	-	<b>2</b>
BIOL2013-3	<i>General microbiology, 2nd part</i> - Micheline VANDENBOL	16	8	-	<b>2</b>
BIOI0001-1	<i>Industrial microbiology</i> - Philippe THONART	24	-	-	<b>2</b>
ALIM0001-1	<i>Food hygiene</i> - Daniel PORTETELLE, Marianne SINDIC	18	6	-	<b>2</b>
ANIM0004-2	<i>Microbial biochemistry and physiology</i> - Micheline VANDENBOL - [2h AUTR]	12	10	[+]	<b>2</b>

**Second Year**

*Notice :* the list of refresher courses aimed at students who have direct access to the 2nd year of the Masters with a possible addition to the programme is available from the Board of Studies or from the student services of the Faculty of Sciences.

#### Compulsory courses

ENVT0023-1	<i>Professional work placement</i> - COLLÉGIALITÉ, Pierre M. STASSART	-	45	-	<b>3</b>
SMEM0041-1	<i>Personal project</i>				<b>27</b>
	- <i>internship</i> - COLLÉGIALITÉ	-	-	-	
	- <i>final thesis</i> - COLLÉGIALITÉ	-	-	-	

#### Compulsory courses

MECA0459-1	<i>Applied thermodynamics. Energy conversion techniques. Thermic power stations</i> - Ahmed RASSILI	20	20	-	<b>3</b>
ENVT3042-1	<i>Energy management in buildings</i> - Philippe ANDRE, JeanMarie HAUGLUSTAINE	24	12	-	<b>3</b>
ELEC0432-2	<i>Electric power system</i> - JeanLouis LILIEN	24	12	-	<b>3</b>
MECA0457-2	<i>Combustion. Technical and environmental aspects</i> - Philippe NGENDAKUMANA	18	6	-	<b>2</b>
ENVT0866-2	<i>Atmospheric pollution. Management of gaseous waste</i> - Angélique LÉONARD, AnneClaude ROMAIN	18	18	-	<b>3</b>
MECA0453-3	<i>Optimal use of energy in systems and processes</i> - Michel FEIDT	18	24	-	<b>3</b>
ENVT3043-1	<i>Air conditioning in buildings</i> - Philippe ANDRE	24	24	-	<b>5</b>
ENVT0874-3	<i>Non conventional energy technologies and promotion of renewable energy</i> - Philippe ANDRE, Manfred GREGER, Olivier LOTTIN	54	48	-	<b>8</b>

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