

A single year

Updating courses for students who chose the courses of the module "biological methods of waste recovery"

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

Compulsory course

SMEM0024-1	<i>Final thesis</i> - COLLÉGIALITÉ	-	-	-	15
------------	------------------------------------	---	---	---	----

Optional courses

With the approval of the Board of Studies, choose compulsory courses or basic courses totaling 15 ECTS from the programme of the 1st year of Master in Environmental Management, professional focus :

Cross-disciplinary activities

ENVT0010-1	<i>Multidisciplinary approach to environmental issues</i> - François MELARD, Catherine MOUGENOT, AnneClaude ROMAIN, Nathalie SEMAL	15	36	-	4
ENVT0846-2	<i>Introduction to Sustainable Development</i> - Marc MORMONT, Pierre M. STASSART	18	6	-	2
ENVT0849-2	<i>Collection and treatment of environmental information including systems analysis</i> - Philippe ANDRE, Jacques NICOLAS	18	18	-	3

Environment and resources

ENVT0038-1	<i>Ecosystems: conditions, resources and impact of anthropic activities including environmental management</i> - Célia JOAQUIMJUSTO, Angélique LÉONARD, Roberto RENZONI, Emmanuël SÉRUSIAUX	69	24	-	7
ENVT0012-1	<i>Energy supply resources</i> - JeanMarie HAUGLUSTAINE	18	6	-	2

Society and environment

SPOL0382-1	<i>Foundations of environmental politics/law</i> - Sylviane LEPRINCE	20	5	-	3
ECON0920-1	<i>Basis of environmental economy</i> - HenryJean GATHON, Axel GAUTIER, Michel HERMANS, Bernard JURION	20	5	-	3

Tools

ENVT0013-1	<i>Assessment tools (impact assessment, LCA)</i> - Alain HANSON, Jacques NICOLAS, Nathalie SEMAL	30	20	-	4
ENVT0014-1	<i>Multicriteria analysis</i> - JeanJacques BOREUX	20	20	-	3
ENVT0015-1	<i>Tools of environmental management (EMS, prospective, spatial planning)</i> - Marc MORMONT, Nathalie SEMAL, Pierre M. STASSART	30	20	-	4
ENVT0016-1	<i>Bayesian statistics applied to environment</i> - JeanJacques BOREUX	24	6	-	2

Sustainable development

ENVT0873-2	<i>Sustainable development and governance (sociology of policies)</i> - Marc MORMONT	30	20	-	4
ENVT0039-1	<i>Modes of environmental knowledge</i> - François MELARD	15	10	-	2
ENVT0017-1	<i>Current issues of sustainable development</i> - Catherine MOUGENOT, Pierre M. STASSART	30	20	-	4

ARCH0076-1	<i>Regional planning, urban planning and energy</i> - Sigrid REITER, Jacques TELLER	30	20	-	4
------------	---	----	----	---	---

Health and environment

ENVT0018-1	<i>Ecotoxicology and quantification of ecotoxicological risk</i> - Célia JOAQUIMJUSTO	20	20	-	4
ESHY0128-1	<i>Environmental toxicology and health impacts</i> - Corinne CHARLIER	20	20	-	4

Water and soil

GEOL0271-1	<i>Groundwater</i> - Alain DASSARGUES, Philippe ORBAN	20	20	-	3
------------	---	----	----	---	---

GEOG0623-1	<i>Sustainable development of waterways</i> - Philippe RIGO	20	5	-	3
REAU0001-1	<i>Hydrology and surface hydraulics</i> - Michel PIROTON	25	25	-	4
ESHY0084-3	<i>Environmental microbiology</i> - Monique CARNOL, Francis ROSILLON	20	20	-	4
Waste					
ENVT0844-2	<i>Energy Recovery from Waste</i> - Michel CRINE	15	10	-	2
<i>Notice : intervention of external speakers</i>					
ENVT0857-1	<i>Processing and recycling of solid waste and soils (ex-situ)</i> - Stoyan GAYDARDZHIEV	20	20	-	3
Energy					
ENVT0867-1	<i>Environmental performance of buildings</i> - JeanMarie HAUGLUSTAINE	20	20	-	3
ENVT0019-1	<i>Energy balance and CO2 emissions on a building life-cycle, Part 1 : Buildings to be built</i> - JeanMarie HAUGLUSTAINE	20	20	-	3

In agreement with the Studies Council, chose 30 course credits from one of the five modules below, five of which may be replaced by courses from the 1st year of the Masters in Environmental Sciences and Management, with a professional focus :

Notice : if students later wish to follow a Masters 120, they cannot enrol for the specialisation corresponding to the 30 credits chosen.

Environmental Monitoring

ENVT0852-2	<i>Data collection and processing</i> - JeanJacques BOREUX, Jacques NICOLAS	36	36	-	6
<i>Measurement tools for environmental parameters</i>					
ENVT2036-3	<i>Part 1 - Hydrosphere, biosphere and geosphere</i> - HenryMichel CAUCHIE, Bernard TYCHON, JeanLuc VASEL	30	30	-	4
ENVT2037-2	<i>Part 2 - Atmosphere</i> - Véronique BEAUVOIS, AnneSophie CARNOY (GRAMME), JeanJacques EMBRECHTS, Jacques NICOLAS, AnneClaude ROMAIN	36	36	-	6
ENVT2038-2	<i>Part 3 : Energy and mass flows</i> - Philippe ANDRE, JeanMarie HAUGLUSTAINE	24	24	-	4
ENVT0854-1	<i>Information representation</i> - JeanJacques BOREUX, Jacques NICOLAS, Bernard TYCHON	40	20	-	5
ENVT0855-2	<i>Decision Support</i> - JeanJacques BOREUX	15	15	-	2
ENVT0020-1	<i>Environment and health</i> - Laurence COUNET, Jacques NICOLAS	18	18	-	3

Sanitary Engineering

ENVT0856-2	<i>Characterisation of water and gaseous, liquid and solid effluents</i> - AnneClaude ROMAIN, Louis VANDEVENNE, JeanLuc VASEL	36	18	-	4
ENVT0872-1	<i>Water treatment</i> - JeanLuc VASEL	60	60	-	10
GEOL0272-2	<i>Management of groundwater and surface water quantity</i> - Serge BROUYÈRE, Benjamin DEWALS, Philippe ORBAN	36	36	-	6
GCIV0187-3	<i>Storage : containing waste</i> - Frédéric COLLIN, JeanMarie RIGO, JeanLuc VASEL - [1d Vis.]	36	18	[+]	4
ENVT0858-2	<i>Remediation of contaminated sites</i> - Serge BROUYÈRE	18	18	-	3
ENVT0859-2	<i>Environmental acoustics</i> - JeanJacques EMBRECHTS	18	18	-	3

Societies-environments interfaces

SPOL2306-1	<i>Policy of Energy</i>				4
<i>- Part 1 : Policies to reduce emissions</i> - Quentin MICHEL - Suppl : Maxime HABRAN					
<i>- Part 2 : Regional and local policies</i> - JeanMarie HAUGLUSTAINE					
ENVT0860-3	<i>Environmental Controversies</i> - François MELARD	30	18	-	4
ENVT0040-1	<i>Theory and interim management</i> - Pierre M. STASSART	24	12	-	3
ENVT0005-5	<i>Representations Practices of Environment and Nature</i> - Catherine MOUGENOT, Lucienne STRIVAY	30	6	-	3
ENVT0862-2	<i>Methodology (quantitative and qualitative analysis)</i> - François MELARD, Catherine MOUGENOT	18	30	-	4
ENVT0861-2	<i>Communication and environment</i> - Nathalie SEMAL, Marianne VON FRENCKELL	30	24	-	4
ENVT0021-1	<i>Case Study</i> - JeanMarie HAUGLUSTAINE, François MELARD, Marc MORMONT, Catherine MOUGENOT, Pierre M. STASSART	12	60	-	6
ENVT0022-1	<i>Seminar to prepare the final thesis</i> - COLLÉGIALITÉ	12	12	-	2

Renewable energies

ENVT0865-2	<i>Energy and climate</i> - JeanMarie HAUGLUSTAINE	18	16	-	2
MECA0459-1	<i>Applied thermodynamics. Energy conversion techniques. Thermic power stations</i> - Ahmed RASSILI	20	20	-	3
CHIM0622-2	<i>Energy vectors</i> - JeanMarie HAUGLUSTAINE	18	6	-	2
ELEC0432-2	<i>Power system network</i> - JeanLouis LILIEN	24	12	-	3
MECA0457-2	<i>Combustion. Technical and environmental aspects</i> - Philippe NGENDAKUMANA	18	6	-	2

ENVT0866-2	<i>Atmospheric pollution. Management of gaseous waste</i> - Angélique LÉONARD, AnneClaude ROMAIN	18	18	-	3
MECA0453-3	<i>Optimal use of energy in systems and processes</i> - Michel FEIDT	18	24	-	3
MECA0458-2	<i>Refrigeration and air-conditioning</i> - Philippe ANDRE, Rahal BOUSSEHAIN	24	24	-	4
ENVT0874-3	<i>Non conventional energy technologies and renewables</i> - Philippe ANDRE, Olivier LOTTIN, Bernard TYCHON	54	48	-	8
Biological methods of waste recovery (courses given on the site of Gembloux)					
ENVT2055-1	<i>Ecosystem deterioration</i> - Roger PAUL	12	-	-	2
GESA0014-1	<i>Life cycle analysis</i> - Angélique LÉONARD	12	12	-	2
GESA0006-1	<i>Practical aspects of physico-chemical wastewater treatment</i> - Philippe THONART	-	36	-	3
GESA0007-1	<i>Fundamental processes of physico-chemical wastewater treatment</i> - Philippe THONART	24	-	-	2
GESA0008-1	<i>Wastewater treatment microbiology</i> - Frank DELVIGNE	15	9	-	2
GESA0009-1	<i>Practical aspects of biological wastewater treatments</i> - Frank DELVIGNE - [27h FT]	3	6	[+]	3
GESA0010-1	<i>Fundamental processes of biological wastewater treatment</i> - Frank DELVIGNE	24	-	-	2
GESA0011-1	<i>Technology of water purification</i> - N...	12	-	-	2
CHIM9225-1	<i>Gas effluents processing</i> - JeanMarc ALDRIC	14	-	-	2
GESA0015-1	<i>Waste recovery : latest developments</i> - Philippe THONART - [20h SEM]	20	20	[+]	5
ENVT2053-1	<i>Waste management</i> - Luc MINNE - [3h FT]	21	-	[+]	2
GESA0013-1	<i>Soil remediation</i> - Bruno CAMPANELLA, Gilles COLINET, Jacqueline DESTAIN - [6h SEM]	30	-	[+]	3