

## A single year

### Compulsory course

SMEM0024-1 *Final thesis* - COLLÉGIALITÉ - - - 15

### Optional courses

Follow the programme chosen previously

#### Optional course intended for students' with a Bachelor's degree

Choose two modules among the following, according to the student's former training and in agreement of the Council of studies :

#### "Management" Module

SPOL0382-1	<i>Foundations of environmental politics/law</i> - Sylviane LEPRINCE	20	5	-	2
ECON0920-1	<i>Basis of environmental economy</i> - Catherine DELCOUR, Henry-Jean GATHON, Axel GAUTIER, Michel HERMANS, Bernard JURION, Claudine VLAJIC	20	5	-	2
ENVT0845-1	<i>Evaluation and management tools (evaluation EIA, SEA, LCA), management: SME, labels, multi-criteria analysis, spatial planning, economic tools</i> - Jean-Jacques BOREUX, Marc MORMONT, Jacques NICOLAS, François ROSILLON, Pierre M. STASSART, Marianne VON FRENCKELL	50	40	-	7
ENVT0847-1	<i>Epistemology and the environment (environmental knowledge models)</i> - François MELARD	15	10	-	2
ENVT0846-1	<i>Introduction to Sustainable Development</i> - Marc MORMONT, Pierre M. STASSART	20	5	-	2

#### Module "Sciences"

ENVT0848-1	<i>Impacts of human activities on ecosystems and including land use</i> - Célia JOAQUIM#JUSTO, Emmanuël SÉRUSIAUX, Marianne VON FRENCKELL	20	20	-	3
ESHY0084-3	<i>Environmental microbiology</i> - Monique CARNOL, François ROSILLON	20	20	-	3
ENVT0849-1	<i>Collection and treatment of environmental information including systems analysis</i> - Philippe ANDRE, Jean-Jacques BOREUX, Jacques NICOLAS	20	20	-	3
ESHY0126-1	<i>Ecotoxicology and Environmental Toxicology</i> - Corinne CHARLIER, Célia JOAQUIM#JUSTO	20	20	-	3
ESHY0127-1	<i>Quantification of toxicological and ecotoxicological risks</i> - Corinne CHARLIER, Célia JOAQUIM#JUSTO	20	20	-	3

#### Module "Applied Sciences"

ENVT0850-1	<i>Energy supply</i> - Jean-Marie HAUGLUSTAINE	20	20	-	3
ENVT0851-1	<i>Impacts of industrial activity on environment</i> - Angélique LÉONARD - Suppl : Roberto RENZONI	20	20	-	3
GEOL0271-1	<i>Groundwater</i> - Alain DASSARGUES, Philippe ORBAN	20	20	-	3
GEOG0623-1	<i>Drainage</i> - Philippe RIGO	20	20	-	3
GEOG0624-1	<i>Catchments hydrology</i> - Sébastien ERPICUM, Michel PIROTTON	20	20	-	3

[...] Choose, in agreement with the Physics Board of Studies, courses totalling 15 credits in one of the four options inscribed in the 2nd year of the Masters in Management and the Environment, further studies outcome programme.

#### Optional course intended for students' with a Master's degree

Choose one module among the following, according to the student's former training and in agreement of the Council of studies :

#### "Management" Module

SPOL0382-1	<i>Foundations of environmental politics/law</i> - Sylviane LEPRINCE	20	5	-	2
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#### Module "Sciences"

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ESHY0084-3	<i>Environmental microbiology</i> - Monique CARNOL, François ROSILLON	20	20	-	3
ENVT0849-1	<i>Collection and treatment of environmental information including systems analysis</i> - Philippe ANDRE, Jean-Jacques BOREUX, Jacques NICOLAS	20	20	-	3
ESHY0126-1	<i>Ecotoxicology and Environmental Toxicology</i> - Corinne CHARLIER, Célia JOAQUIM#JUSTO	20	20	-	3
ESHY0127-1	<i>Quantification of toxicological and ecotoxicological risks</i> - Corinne CHARLIER, Célia JOAQUIM#JUSTO	20	20	-	3

#### Module "Applied Sciences"

ENVT0850-1	<i>Energy supply</i> - Jean-Marie HAUGLUSTAINE	20	20	-	3
ENVT0851-1	<i>Impacts of industrial activity on environment</i> - Angélique LÉONARD - Suppl : Roberto RENZONI	20	20	-	3
GEOLO271-1	<i>Groundwater</i> - Alain DASSARGUES, Philippe ORBAN	20	20	-	3
GEOG0623-1	<i>Drainage</i> - Philippe RIGO	20	20	-	3
GEOG0624-1	<i>Catchments hydrology</i> - Sébastien ERPICUM, Michel PIROTTON	20	20	-	3

**Choose, in agreement with the Physics Board of Studies, one of the four options inscribed in the 2nd year of the Masters in Management and the Environment, further studies outcome programme :**

#### Option Monitoring the Environment

ENVT0852-1	<i>Data collection and processing</i> - Jean-Jacques BOREUX, Jacques NICOLAS, Eric PIRARD	40	40	-	6
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#### Measurement Tools for Environmental Parameters

ENVT2036-1	<i>Hydrosphere, biosphere and geosphere</i> - Henry-Michel CAUCHIE, François ROSILLON, Bernard TYCHON, Jean-Luc VASEL	15	15	-	3
ENVT2037-1	<i>Part 2 - Atmosphere</i> - Véronique BEAUVOIS, A.S. CARNOY (GRAMME), Jean-Jacques EMBRECHTS, Jacques NICOLAS, Anne-Claude ROMAIN	35	35	-	7
ENVT2038-1	<i>Energy and mass flows</i> - Philippe ANDRE, Jean-Marie HAUGLUSTAINE	25	25	-	5
ENVT0854-1	<i>Information representation</i> - Jean-Jacques BOREUX, Jacques NICOLAS, Bernard TYCHON	40	20	-	5
ENVT0855-1	<i>Decision Support</i> - Jean-Jacques BOREUX	30	20	-	4

#### Technical Intervention Option

ENVT0856-1	<i>Characterisation of water and gaseous, liquid and solid effluents</i> - Anne-Claude ROMAIN, Louis VANDEVENNE, Jean-Luc VASEL	30	20	-	4
ENVT0872-1	<i>Water treatment</i> - Jean-Luc VASEL	60	60	-	9
GEOLO272-1	<i>Management of groundwater and surface water quantity</i> - Serge BROUYÈRE, Benjamin J. DEWALS, Philippe ORBAN, Philippe RIGO	40	40	-	6
ENVT0857-1	<i>Processing and recycling of solid waste and soils (ex-situ)</i> - Stoyan GAYDARDZHIEV	20	20	-	3
GCIV0187-1	<i>Storage: containing waste</i> - Albert BOLLE, Jean-Marie RIGO, Jean-Luc VASEL	20	20	-	3
ENVT0858-1	<i>Remediation of contaminated sites</i> - Serge BROUYÈRE	20	20	-	3
ENVT0859-1	<i>Environmental acoustics</i> - Jean-Jacques EMBRECHTS	15	10	-	2

#### Option Management

ENVT0860-1	<i>Environmental Controversies</i> - François MELARD	20	20	-	<b>3</b>
ENVT0873-1	<i>Sustainable development and governance (sociology of policies)</i> - Marc MORMONT	20	20	-	<b>3</b>
GEST1074-1	<i>Business Management</i> - Pierre M. STASSART	20	20	-	<b>3</b>
ENVT0005-3	<i>Representations Practices of Environment and Nature</i> - Catherine MOUGENOT, Lucienne STRIVAY	20	20	-	<b>3</b>
ENVT0862-1	<i>Methodology (quantitative and qualitative analysis)</i> - François MELARD, Marc MORMONT, Catherine MOUGENOT, Jacques NICOLAS	20	20	-	<b>3</b>
ENVT0861-1	<i>Communication and environments</i> - Marianne VON FRENCKELL	20	20	-	<b>3</b>
ENVT0863-1	<i>Projects</i> - Jean-Marie HAUGLUSTAINE, François MELARD, Marc MORMONT, Catherine MOUGENOT, Pierre M. STASSART	15	80	-	<b>8</b>
ENVT0864-1	<i>special questions</i> - Catherine MOUGENOT, Pierre M. STASSART	30	20	-	<b>4</b>
<b>Option Energy-Environment</b>					
ENVT0865-1	<i>Energy and climate</i> - Jean-Marie HAUGLUSTAINE	15	10	-	<b>2</b>
MECA0459-1	<i>Applied thermodynamics. Energy conversion techniques. Thermic power stations</i> - Philippe MATHIEU	20	20	-	<b>3</b>
CHIM0622-1	<i>Energy vectors</i> - Jean-Marie HAUGLUSTAINE	15	10	-	<b>2</b>
ELEC0432-1	<i>Power system network</i> - Jean-Louis LILIEU, N...	15	10	-	<b>2</b>
MECA0457-1	<i>Combustion. Technical and environmental aspects</i> - Philippe NGENDAKUMANA	15	10	-	<b>2</b>
ENVT0844-2	<i>Energy Recovery from Waste</i> - Michel CRINE	15	10	-	<b>2</b>
Notice : intervention of external speakers					
ENVT0866-1	<i>Atmospheric pollution. Management of gaseous waste.</i> - Angélique LÉONARD, Anne-Claude ROMAIN	15	10	-	<b>2</b>
MECA0453-1	<i>Optimal use of energy in systems and processes</i> - Michel FEIDT, Gaël MARANZANA	20	20	-	<b>3</b>
ENVT0867-1	<i>Environmental performance of buildings</i> - Jean-Marie HAUGLUSTAINE	20	20	-	<b>3</b>
MECA0458-1	<i>Refrigeration and air-conditioning</i> - Philippe ANDRE, Rahal BOUSSEHAIN	20	20	-	<b>3</b>
ENVT0874-1	<i>Non conventional energy technologies and renewables</i> - Philippe ANDRE, Sébastien ERPICUM, Olivier LOTTIN, Michel PIROTTON, Bernard TYCHON	40	40	-	<b>6</b>