

**A single year**

**Compulsory course**

SMEM0018-1 *Final thesis* - COLLÉGIALITÉ - - - **26**

**Optional courses**

*Choose the option below that was not taken in the first year of the Bachelor degree in biological sciences :*

**Option Biochemistry and Molecular and Cellular Biology**

GENE0210-1	<i>Genetics and molecular biology</i> - N... - Suppl : Jacques DOMMES, Bernard PEERS, Marianne VOZ	60	30	-	<b>9</b>
BIOC0209-3	<i>Chemistry of biological macromolecules</i> - Moreno GALLEN, André MATAGNE - [4h Vis. Ind. Pl. ]	60	40	[+]	<b>9</b>
STRA0044-1	<i>Training in scientific communication</i> - Jacques DOMMES, Patrick MOTTE - [50h Internship]	-	-	[+]	<b>4</b>

**Option Biology of Organisms and Ecology**

BIOC0001-1	<i>Genetics, molecular biology and chemistry of biological macromolecules</i> - Jacques DOMMES, Moreno GALLEN	30	30	-	<b>6</b>
BIOL0017-1	<i>Biodiversity</i> - Bruno FREDERICH, Emmanuël SÉRUSIAUX - [3d FW]	40	35	[+]	<b>6</b>
BIOL0018-1	<i>Ecology</i>				<b>6</b>
	- <i>Part : Ecology of soil</i> - Monique CARNOL - [1d FW]	25	10	[+]	
	- <i>Part : Ecology of freshwater</i> - JeanPierre THOMÉ - [2d FW]	15	-	[+]	
STRA0045-1	<i>Training in scientific communication</i> - Monique CARNOL, Patrick DAUBY - [50h Internship]	-	-	[+]	<b>4</b>

Choose courses totalling 12 ECTS from the following :

**Biochemistry and Molecular and Cell Biology**

BIOC0210-5	<i>Functional properties of biological macromolecules</i> - André MATAGNE - [10h Mon. WS]	20	20	[+]	<b>3</b>
BIOC0720-1	<i>Structure of biological macromolecules</i> - Paulette CHARLIER - [5h Mon. WS]	15	20	[+]	<b>2</b>
BIOC0721-1	<i>Optical properties of biological macromolecules</i> - Christian DAMBLON, André MATAGNE	15	20	-	<b>2</b>
BIOC0709-4	<i>Bioenergetics</i> - Pierre CARDOL, Fabrice FRANCK	20	20	-	<b>2</b>
GENE0001-4	<i>Genetic engineering</i> - Jacques DOMMES	20	20	-	<b>2</b>
BIOL0008-1	<i>Bioinformatics</i> - Denis BAURAIN	25	20	-	<b>3</b>
BIOL0009-1	<i>Molecular and cellular animal physiology</i> - Marc THIRY	15	20	-	<b>2</b>
BIOL0010-1	<i>Molecular and cellular plant physiology</i> - Patrick MOTTE	15	20	-	<b>2</b>
GENE0003-1	<i>Genomics</i> - Marc HANIKENNE	20	20	-	<b>2</b>
BIOC0003-2	<i>Biochemistry and physiology of the micro-organisms</i> - Bernard JORIS	20	20	-	<b>2</b>
AESS0320-1	<i>Initiation to biology didactics</i> - MarieNoëlle HINDRYCKX	20	20	-	<b>2</b>

**Biology of Organisms and ecology**

GENE0446-2	<i>Population genetics</i> - Johan MICHAUX, Claire REMACLE	25	15	-	<b>4</b>
BIOL0807-4	<i>Taxonomy and Phylogeny</i>				<b>8</b>
	- <i>Plant part</i> - Emmanuël SÉRUSIAUX	20	15	-	
	- <i>Animal part</i> - Patrick DAUBY	40	30	-	
GENE0448-1	<i>Phylogenetic methods</i> - Denis BAURAIN	15	10	-	<b>2</b>
PALE0209-1	<i>Paleontology</i> - Philippe GERRIENNE, Emmanuelle JAVAUX, Edouard POTY	40	30	-	<b>8</b>
BIOL0808-2	<i>Functional morphology</i> - Eric PARMENTIER - [1d Vis.]	20	25	[+]	<b>4</b>
ANAT0223-1	<i>Embryology</i> - Vincent GEENEN	20	15	-	<b>4</b>
BIOL0809-1	<i>Ecophysiology, ethology</i> - Mathieu DENOËL, Claire PÉRILLEUX, JeanChristophe PLUMIER, Pascal PONCIN	40	30	-	<b>8</b>
BIOL0810-2	<i>Conservation Biology</i> - Marc MORMONT, Emmanuël SÉRUSIAUX - [1d FW]	40	20	[+]	<b>8</b>
BIOL0811-1	<i>Natural resources and ecosystem disruptions</i> - Monique CARNOL, JeanPierre THOMÉ - Suppl : Olivier GUILLITTE - [2d FW]	40	30	[+]	<b>8</b>
BIOL0812-2	<i>Biogeography</i> - Johan MICHAUX, Alain VANDERPOORTEN - [4d FW]	40	-	[+]	<b>8</b>

**Environmental management**

ENVT0031-2	<i>Society / Environment (epistemology, law, economics and social sciences towards the environment)</i> - François MELARD, Marc MORMONT	24	12	-	<b>3</b>
ENVT0030-2	<i>Managing the environment (transitional issues, instruments, case studies)</i> - JeanMarie HAUGLUSTAINE, François MELARD, Marc MORMONT, Catherine MOUGENOT, Pierre M. STASSART	24	12	-	<b>3</b>
ENVT0034-1	<i>GIS data management</i> - Philippe ANDRE, Jacques NICOLAS, AnneClaude ROMAIN, Bernard TYCHON	12	12	-	<b>2</b>
ENVT0013-3	<i>Assessment tools (impact assessment, LCA)</i> - Alain HANSON, Jacques NICOLAS, Nathalie SEMAL	12	12	-	<b>2</b>
ENVT0848-3	<i>Impacts of human activities on ecosystems and including land use</i> - Célia JOAQUIMJUSTO, Angélique LÉONARD, Roberto RENZONI, Emmanuël SÉRUSIAUX	20	10	-	<b>2</b>

*Notice* : students who have chosen all classes in the 'Environmental Sciences and Management' module will have direct access to the 2nd year of the Masters in Environmental Sciences and Management, organised at the Arlon campus. Other students will also have access to the 2nd year of the Masters in Environmental Sciences and Management, on the condition that they follow classes corresponding to these 12 credits in addition to the 60 credits from this study year.