

## A single year

### Compulsory course

SMEM0018-1 *Final thesis* - COLLÉGIALITÉ - - - **28**

### 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>8</b>
BIOC0209-3	<i>Chemistry of biological macromolecules</i> - Moreno GALLEN, André MATAGNE - [4h 60 Vis. Ind. Pl. ]	40	[+]		<b>9</b>
MICR0001-1	<i>Complements of microbiology (including bacterial physiology)</i> - Denis BAURAIN, Bernard JORIS, Jacques PIETTE	30	-	-	<b>3</b>
STRA0008-1	<i>Bibliographical research and student seminars, 50 h.</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>
BIOL0516-3	<i>Ecology and Biodiversity</i> - Monique CARNOL, Bruno FREDERICH, Emmanuël SÉRUSIAUX, Jean-Pierre THOMÉ	125	-	-	<b>11</b>
SSTG0031-1	<i>Ecology and Biodiversity - Placement</i> - Monique CARNOL, Bruno FREDERICH, Emmanuël SÉRUSIAUX, Jean-Pierre THOMÉ - [6d FW]	-	-	[+]	<b>3</b>
STRA0009-1	<i>Bibliographical research and student seminars</i> - Monique CARNOL, Patrick DAUBY,- Roland LIBOIS - [50h Internship]	-	-	[+]	<b>4</b>

Choose courses totalling 8 ECTS from the following :

#### Biochemistry and Molecular and Cell Biology

BIOC0210-4	<i>Functional properties of biological macromolecules</i> - Edwin DE PAUW, André MATAGNE - [15h Mon. WS]	30	20	[+]	<b>5</b>
CHIM9218-1	<i>Biospectroscopy and nuclear magnetic resonance applied to biology</i> - Christian DAMBLON - [15h Mon. WS]	20	-	[+]	<b>3</b>
BIOC9233-1	<i>Structure and Dynamic of biological macromolecules</i> - Paulette CHARLIER, André MATAGNE - [20h Mon. WS]	20	20	[+]	<b>4</b>
BIOC0709-3	<i>Bioenergetics</i> - Pierre CARDOL, Fabrice FRANCK	30	20	-	<b>5</b>
BIOL0803-2	<i>Molecular and cellular physiology</i> - Patrick MOTTE, Marc MULLER, Marc THIRY	40	20	-	<b>5</b>
BIOC0710-2	<i>Metabolic pathways</i> - Fabrice FRANCK	15	20	-	<b>2</b>
GENE0001-3	<i>Genetic engineering</i> - Jacques DOMMES, Jacques DOMMES	30	20	-	<b>4</b>
BIOL0804-2	<i>Developmental Biology</i> - Bernard PEERS, Claire PÉRILLEUX	25	20	-	<b>3</b>
GENE0432-3	<i>Genetic and biochemical aspects of evolution</i> - Denis BAURAIN, Moreno GALLEN, Claire REMACLE	25	20	-	<b>2</b>
BIOC0003-2	<i>Biochemistry and physiology of the micro-organisms</i> - Bernard JORIS	20	20	-	<b>2</b>
MICR0207-2	<i>Further Immunology</i> - Catherine SADZOT	15	20	-	<b>2</b>
CHIM0059-4	<i>Industrial Microbiology</i> - Philippe THONART	15	20	-	<b>2</b>

#### Biology of Organisms and ecology

GENE0438-1	<i>Evolutionary genetics</i> - Denis BAURAIN, Johan MICHAUX, Claire REMACLE	30	30	-	<b>4</b>
BIOL0807-1	<i>Taxonomy and Phylogeny</i>				<b>8</b>
	- <i>Methodological part</i> - Emmanuël SÉRUSIAUX, Alain VANDERPOORTEN	10	-	-	
	- <i>Plant part</i> - Emmanuël SÉRUSIAUX	20	15	-	
	- <i>Animal part</i> - Patrick DAUBY	40	30	-	
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,	40	30	-	<b>8</b>

	LUMIER, Pascal PONCIN					
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, Jean-Pierre THOMÉ - [2d FW]	40	30	[+]	<b>8</b>	
BIOL0812-2	<i>Biogeography</i> - Johan MICHAUX, Alain VANDERPOORTEN - [4d FW]	40	-	[+]	<b>8</b>	
<b>Environmental management</b>						
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> - Jean-Marie 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, Anne-Claude 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 JOAQUIM#JUSTO, Angélique LÉONARD, Roberto RENZONI, Emmanuël SÉRUSIAUX	20	10	-	<b>2</b>	

*Notice* : Students who choose the two courses from the "Environmental Science and Management" module will have direct access to the 2nd year of the Masters in Environmental Science and Management, organised on the Arlon campus. Other students will also have access to the 2nd year of the Masters in Environmental Science and Management, on the condition that they take courses corresponding to these 12 credits in addition to the 60 credits taken during this study year.