

**Block view of the study programme**

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**Block 1**
**Compulsory courses**
**Specialised courses in Biology and Ecology**

SSTG0046-1	<i>Naturalistic building upon applied in conservation</i> - Emmanuël SÉRUSIAUX - [10d FW]	TA	-	-	[+]	3
SSTG0024-1	<i>Training : biodiversity, phylogeny and marine ecology</i> - Patrick DAUBY, Bruno FREDERICH, Véronique GOOSSE, Mathieu POULICEK - [10d FW]	Q2	-	-	[+]	4
BIOL0852-1	<i>Ecosystems and climate change</i> - Monique CARNOL	Q2	24	16	-	3
BIOL0810-2	<i>Conservation biology</i> - Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [1d FW]	Q2	30	10	[+]	4
BIOL0808-2	<i>Functional morphology</i> - <i>Marine vertebrates</i> - Eric PARMENTIER - <i>Birds, mammals, biomimicry</i> - Eric PARMENTIER - [1d Vis.]	Q1		15 5	10 15	- [+]
PALE0209-1	<i>Paleontology</i> - Valentin FISCHER, Philippe GERRIENNE, Emmanuelle JAVAUX	Q1	30	-	-	3

**Specialised courses in basic Ethology and applied to population management**

BIOL0809-1	<i>Ecophysiology, ethology</i> - Mathieu DENOËL, Claire PÉRILLEUX, JeanChristophe PLUMIER	Q1	40	15	-	5
BIOL0853-1	<i>Ethometry</i> - Mathieu DENOËL, André FERRARA, Michaël OVIDIO - [1d FW]	Q1	15	40	[+]	4

**Specialised courses in applied Ecology and Ecotoxicology**

ENVT3045-1	<i>Ecosystems : contitions, anthropic impacts and management</i> - Dorothée DENAYER, Célia JOAQUIMJUSTO	Q1	26	22	-	3
BIOL0854-1	<i>Ecotoxicology (english language)</i> - Célia JOAQUIMJUSTO	Q2	20	18	-	4

**Population study and phylogenetics**

BIOL0812-2	<i>Biogeography</i> - Johan MICHAUX, Alain VANDERPOORTEN - [3d FW]	Q2	30	-	[+]	4
GENE0446-2	<i>Population genetics</i> - Johan MICHAUX, Claire REMACLE	Q1	25	15	-	4
GENE0448-1	<i>Phylogenetic methods</i> - Denis BAURAIN <b>Corequisite :</b> BIOL2041-1 - Taxonomie et phylogénie animales BIOL2040-1 - Taxonomie et phylogénie des lignées chlorophylliennes	Q1	20	15	-	3
BIOL2041-1	<i>Taxonomy and animal phylogeny</i> - Patrick DAUBY <b>Corequisite :</b> GENE0448-1 - Méthodes de phylogénie BIOL2040-1 - Taxonomie et phylogénie des lignées chlorophylliennes	Q1	35	25	-	5
BIOL2040-1	<i>Taxonomy and phylogeny of chlorophyll lines</i> - Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN <b>Corequisite :</b> GENE0448-1 - Méthodes de phylogénie BIOL2041-1 - Taxonomie et phylogénie animales	Q2	25	15	-	3

**Transversal training**

AESS0320-1	<i>Initiation to biology didactics</i> - MarieNoëlle HINDRYCKX	Q2	20	20	-	2
STAT0750-1	<i>Multivariate statistical analysis (software R)</i> - Gentiane HAESBROECK	Q1	10	10	-	2

Notice : Students who handle animals within the framework of their dissertation must have the "Certificate in laboratory animal sciences, grade: animal biotechnologist" (contact : Prof. Jean-Christophe PLUMIER).

**Block 2**

**Compulsory courses**

SMEM0013-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	<b>27</b>
	<b>Corequisite :</b> DOCU0459-2 - Formation à la documentation et préparation à la réalisation du mémoire					
DOCU0459-2	<i>Documentation training and preparation to the final thesis</i>	Q1				<b>3</b>
	- <i>Bibliographic research</i> - Ninfa GRECO - [20h Mon. WS]		-	-	[+]	
	- <i>Preparation to the final thesis</i> - Monique CARNOL - [10h Mon. WS]		-	-	[+]	
	<b>Corequisite :</b> SMEM0013-1 - Mémoire					

**Focus to be chosen**

Choose one focus from the following :

**Research Focus**

In agreement with the jury, choose one of the three modules below

**Basic ethology and applied to population management**

SSTG0053-1	<i>Integrated ethometry internship</i> - Fany BROTCORNE, Mathieu DENOËL - [4d FW]	Q1	-	10	[+]	<b>3</b>
	<b>Corequisite :</b> BIOL0853-1 - Ethométrie BIOL0809-1 - Ecophysiologie, éthologie					
BIOL0856-1	<i>Experimental designs and data processing in ethology</i> - Alain HAMBUECKERS	Q1	-	20	-	<b>3</b>

En accord avec le Jury, choisir 3 des 5 cours ci-dessous :

PSYC1063-1	<i>Social ethology</i> - Fany BROTCORNE, Johann DELCOURT, Pascal PONCIN	Q2	20	10	-	<b>3</b>
PSYC0063-1	<i>Behavioural neuroendocrinology</i> - Charlotte CORNIL	Q1	30	-	-	<b>3</b>
BIOL0857-1	<i>Behavioural neuroscience and animal cognition</i> - André FERRARA, JeanChristophe PLUMIER, Gilles VANDEWALLE	Q1	18	12	-	<b>3</b>
BIOL0858-1	<i>Animal communication</i> - Christian MICHEL, Eric PARMENTIER, JeanChristophe PLUMIER	Q1	20	10	-	<b>3</b>
ANTH0057-1	<i>Anthropology of nature and animals - Part 1: Theory</i> - Véronique SERVAIS	Q1	30	-	-	<b>3</b>

In agreement with the jury, choose one of the two specialisations below:

**Ethology of wildlife and management of terrestrial fauna**

In agreement with the jury, choose 3 of the 4 courses below:

BIOL1064-1	<i>Behavioural primatology</i> - Fany BROTCORNE	Q1	20	10	-	<b>3</b>
RAVT0002-2	<i>Eco-ethology and wildlife conservation</i> - MarieClaude HUYNEN, Pascal PONCIN - [1d FW]	Q2	20	-	[+]	<b>3</b>
VETE0014-1	<i>Domestic Animal Behaviour Science</i> - Marc VANDENHEEDE	Q1	32	-	-	<b>3</b>
BIOL0859-1	<i>Insect behaviour</i> - Frédéric FRANCIS, François VERHEGGEN	Q1	20	10	-	<b>3</b>

**Ethology of wildlife and management of aquatic fauna**

ZOOL0232-1	<i>Ecology, ethology and amphibian conservation</i> - Mathieu DENOËL - [1d FW]	Q1	15	15	[+]	<b>3</b>
OCEA0043-3	<i>Ecoethology of the marine animals</i> - Sylvie GOBERT, Christian MICHEL - [5d FW]	Q2	10	-	[+]	<b>3</b>
ZOOL2021-1	<i>Ecology and dynamics of freshwater fish populations</i> -	Q1	10	20	-	<b>3</b>

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In agreement with the jury, chose courses that haven't already been chosen for a total of 6 credits from among:

[...] Modular courses

[...] List of optional courses

HAAR0091-1	<i>Archaeozoology</i> - Annick GABRIEL	Q1	15	15	-	3
GEOL0099-1	<i>Evolution of the Phanerozoic biosphere</i> (english language) - Valentin FISCHER - [2d FW] <b>Prerequisite :</b> PALE0209-1 - Paléontologie	Q1	20	-	[+]	3
GEOL1022-2	<i>Precambrian paleobiogeology</i> - Emmanuelle JAVAUX	Q1	20	10	-	3
GEOL0263-1	<i>Astrobiology</i> - Vincianne DEBAILLE, Véronique DEHANT, Emmanuelle JAVAUX, Yaël NAZÉ, Annick WILMOTTE (Even years)	Q2	30	15	-	3
GEOL1023-1	<i>Palynology - advanced course on Paleozoic spores</i> (Odd years)	Q2	30	-	-	3
BIOL0821-1	<i>Natural Biomaterials : ultrastructural and functional aspects</i> - Philippe COMPÈRE	Q2	30	-	-	3
BIOL0114-4	<i>Electronic microscopies, Part A</i> - Philippe COMPÈRE	Q2	15	-	-	3
CHIM9236-1	<i>Microstructure of materials : characterization techniques, Part A</i> - Catherine HENRIST	Q2	15	-	-	3
BIOL0820-1	<i>Morphological specific aspects of vertebrates : functional approach</i> - Eric PARMENTIER	Q2	30	-	-	3
NEUR0434-1	<i>Functional Neuroanatomy</i> - JeanChristophe PLUMIER	Q2	30	-	-	3
BIOL0822-1	<i>Environmental physiology</i> (english language) - JeanChristophe PLUMIER	Q1	10	20	-	3
BIOL0823-1	<i>Ultrastructural cytochemistry</i> - Philippe COMPÈRE, Marc THIRY	Q2	30	-	-	3
OCEA0083-1	<i>Physiology and biochemistry of the marine animals</i> (english language) - Philippe COMPÈRE	Q1	15	15	-	3
CHIM9212-1	<i>Biological applications of radioelements</i> - Philippe COMPÈRE	Q2	30	-	-	3
GENE0003-1	<i>Genomics</i> - Marc HANIKENNE	Q2	20	-	-	3
ZOOL0227-1	<i>Genetic foundations of aquaculture</i> - Charles MÉLARD	Q1	30	-	-	3
GENE0441-1	<i>Organelle genetics</i> - Part A - Claire REMACLE - Part B - Claire REMACLE	Q2				3
LABO0432-1	<i>Techniques for cells and tissue cultures</i> - Julie LECOMTE, Erik MAQUOI	Q1	8	20	-	3
GBIO0022-1	<i>Biomimeticism</i> (english language) - Philippe COMPÈRE, Liesbet GERIS, Tristan GILET, Davide RUFFONI - [45h Proj.]	TA	15	-	[+]	3
SSTG0023-1	<i>Training : phylogeny and ecology of Macaronesian and Mediterranean flora</i> - Alain HAMBUCKERS, Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [10d FW]	Q2	-	-	[+]	3
BOTA0405-1	<i>In vitro culture of plants</i> - Claire KEVERS	Q2	30	-	-	3
BOTA0410-1	<i>Phylogeny of eukaryotes</i> - Denis BAURAIN	Q1	30	-	-	3
BIOL0844-1	<i>General biology of cryptogams (bryophyta and lichens)</i> - Emmanuël SÉRUSIAUX, Alain VANDERPOORTEN - Suppl : Nicolas MAGAIN	Q2	30	-	-	3
BIOL0826-2	<i>Biogeography and plant and nature conservation</i> - Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [6d FW]	Q2	-	-	[+]	3

BIOL2042-1	<i>Population Biology</i> - Johan MICHAUX - [3d FW]	Q2	10	-	[+]	3
ZOOL0228-1	<i>Demography and dynamics population of mammals and birds</i> - Roland LIBOIS	Q1	30	-	-	3
ZOOL0230-2	<i>Methods to count and monitor freshwater fish populations</i> - Michaël OVIDIO - [4d FW]	Q2	-	10	[+]	3
BIOL0828-1	(pas organisé en 2018-2019) <i>Hydrobiology and Limnology</i> - Anne GOFFART, Célia JOAQUIMJUSTO, N...	Q2	30	-	-	3
BIOL0025-1	<i>Animal symbiosis</i> - JeanChristophe PLUMIER, Stéphane ROBERTY	Q1	15	15	-	3
OCEA0084-1	<i>Marine ecotoxicology</i> (english language) - Krishna DAS	Q1	15	15	-	3
OCEA0085-1	<i>Methods of investigation, observation and analysis of marine plankton</i> - Anne GOFFART - [12h Mon. WS]	Q1	10	5	[+]	3
ZOOL0218-4	<i>Aquariology</i> - Christian MICHEL	Q1	20	-	-	3
OCEA0050-1	<i>Ecology of the Mediterranean benthos</i> - Sylvie GOBERT, Mathieu POULICEK - [30h FW]	Q1	-	-	[+]	3
OCEA0144-1	<i>Ecology of the coral reefs</i> (english language) - Mathieu POULICEK	Q1	30	-	-	3
OCEA0223-1	<i>Biodiversity of tropical coastal regions</i> - Bruno FREDERICH, Gilles LEPOINT - [15d FW]	Q2	-	-	[+]	3
OCEA0028-1	<i>Impact study in a sea environment : theory and practice</i> - Pierre LEJEUNE	Q1	20	-	-	3
OCEA0027-1	<i>Applications of stable isotopes in marine sciences</i> - Gilles LEPOINT, Loïc MICHEL	Q1	15	15	-	3
ENV0884-1	<i>Ecology and economy of agricultural systems</i> - Alain HAMBUECKERS	Q1	30	-	-	3
DOCU0455-1	<i>Introduction to critical thinking</i> - Yaël NAZÉ	Q2	10	5	-	3

[...] programmes from other ULiège Masters or from outside

#### Applied ecology and ecotoxicology

##### Anthropic impact on ecosystems and ecotoxicology

BIOL0860-1	<i>Soil ecotoxicology and bioremediation</i> (english language) - Monique CARNOL, Marc HANIKENNE, Célia JOAQUIMJUSTO	Q1	24	12	-	4
BIOL0861-1	<i>Integrated management of entomological biodiversity</i> - Frédéric FRANCIS	Q1	15	15	-	3
OCEA0062-1	<i>Ecotoxicology and Biodegradation of Marine Pollutants</i> (english language) - <i>Biodegradation of organic molecules in a sea environment</i> - Mathieu POULICEK - <i>Marine ecotoxicology</i> - Krishna DAS	Q1				5
			20	-	-	
			15	15	-	

##### Applied Methodology to Ecology and Ecotoxicology

SSTG0054-1	<i>Applications and case studies in ecology</i> - COLLÉGIALITÉ - [6d FW]	Q2	-	-	[+]	3
BIOL0862-1	<i>Quantification of environmental risk related to pollutants and decision-making</i> - Célia JOAQUIMJUSTO	Q1	16	8	-	3
BIOL0863-1	<i>Analytical tools and assistance for integrated management</i> - JeanFrançois DELIÈGE, Sylvie GOBERT	Q1	30	-	-	3

In agreement with the jury, chose courses that haven't already been chosen for a total of 9 credits from among:

[...] Modular courses

[...] List of optional courses

HAAR0091-1	<i>Archaeozoology</i> - Annick GABRIEL	Q1	15	15	-	3
GEOL0099-1	<i>Evolution of the Phanerozoic biosphere</i> (english language) - Valentin FISCHER - [2d FW] <b>Prerequisite :</b> PALE0209-1 - Paléontologie	Q1	20	-	[+]	3
GEOL1022-2	<i>Precambrian paleobiogeology</i> - Emmanuelle JAVAUX	Q1	20	10	-	3
GEOL0263-1	<i>Astrobiology</i> - Vincianne DEBAILLE, Véronique DEHANT, Emmanuelle JAVAUX, Yaël NAZÉ, Annick WILMOTTE (Even years)	Q2	30	15	-	3
GEOL1023-1	<i>Palynology - advanced course on Paleozoic spores</i> (Odd years)	Q2	30	-	-	3
BIOL0821-1	<i>Natural Biomaterials : ultrastructural and functional aspects</i> - Philippe COMPÈRE	Q2	30	-	-	3
BIOL0114-4	<i>Electronic microscopies, Part A</i> - Philippe COMPÈRE	Q2	15	-	-	3
CHIM9236-1	<i>Microstructure of materials : characterization techniques, Part A</i> - Catherine HENRIST	Q2	15	-	-	3
BIOL0820-1	<i>Morphological specific aspects of vertebrates : functional approach</i> - Eric PARMENTIER	Q2	30	-	-	3
NEUR0434-1	<i>Functional Neuroanatomy</i> - JeanChristophe PLUMIER	Q2	30	-	-	3
BIOL0822-1	<i>Environmental physiology</i> (english language) - JeanChristophe PLUMIER	Q1	10	20	-	3
BIOL0823-1	<i>Ultrastructural cytochemistry</i> - Philippe COMPÈRE, Marc THIRY	Q2	30	-	-	3
OCEA0083-1	<i>Physiology and biochemistry of the marine animals</i> (english language) - Philippe COMPÈRE	Q1	15	15	-	3
CHIM9212-1	<i>Biological applications of radioelements</i> - Philippe COMPÈRE	Q2	30	-	-	3
GENE0003-1	<i>Genomics</i> - Marc HANIKENNE	Q2	20	-	-	3
ZOOL0227-1	<i>Genetic foundations of aquaculture</i> - Charles MÉLARD	Q1	30	-	-	3
GENE0441-1	<i>Organelle genetics</i> - Part A - Claire REMACLE - Part B - Claire REMACLE	Q2	15 15	- -	- -	3
LABO0432-1	<i>Techniques for cells and tissue cultures</i> - Julie LECOMTE, Erik MAQUOI	Q1	8	20	-	3
GBIO0022-1	<i>Biomimeticism</i> (english language) - Philippe COMPÈRE, Liesbet GERIS, Tristan GILET, Davide RUFFONI - [45h Proj.]	TA	15	-	[+]	3
SSTG0023-1	<i>Training : phylogeny and ecology of Macaronesian and Mediterranean flora</i> - Alain HAMBUECKERS, Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [10d FW]	Q2	-	-	[+]	3
BOTA0405-1	<i>In vitro culture of plants</i> - Claire KEVERS	Q2	30	-	-	3
BOTA0410-1	<i>Phylogeny of eukaryotes</i> - Denis BAURAIN	Q1	30	-	-	3
BIOL0844-1	<i>General biology of cryptogams (bryophyta and lichens)</i> - Emmanuël SÉRUSIAUX, Alain VANDERPOORTEN - Suppl : Nicolas MAGAIN	Q2	30	-	-	3
BIOL0826-2	<i>Biogeography and plant and nature conservation</i> - Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [6d FW]	Q2	-	-	[+]	3
BIOL2042-1	<i>Population Biology</i> - Johan MICHAUX - [3d FW]	Q2	10	-	[+]	3
ZOOL0228-1	<i>Demography and dynamics population of mammals and birds</i> - Roland LIBOIS	Q1	30	-	-	3
ZOOL0230-2	<i>Methods to count and monitor freshwater fish populations</i> -	Q2	-	10	[+]	3

	Michaël OVIDIO - [4d FW]					
BIOL0828-1	(pas organisé en 2018-2019) <i>Hydrobiology and Limnology</i> - Anne GOFFART, Célia JOAQUIMJUSTO, N...	Q2	30	-	-	3
BIOL0025-1	<i>Animal symbiosis</i> - JeanChristophe PLUMIER, Stéphane ROBERTY	Q1	15	15	-	3
OCEA0084-1	<i>Marine ecotoxicology</i> (english language) - Krishna DAS	Q1	15	15	-	3
OCEA0085-1	<i>Methods of investigation, observation and analysis of marine plankton</i> - Anne GOFFART - [12h Mon. WS]	Q1	10	5	[+]	3
ZOOL0218-4	<i>Aquariology</i> - Christian MICHEL	Q1	20	-	-	3
OCEA0050-1	<i>Ecology of the Mediterranean benthos</i> - Sylvie GOBERT, Mathieu POULICEK - [30h FW]	Q1	-	-	[+]	3
OCEA0144-1	<i>Ecology of the coral reefs</i> (english language) - Mathieu POULICEK	Q1	30	-	-	3
OCEA0223-1	<i>Biodiversity of tropical coastal regions</i> - Bruno FREDERICH, Gilles LEPOINT - [15d FW]	Q2	-	-	[+]	3
OCEA0028-1	<i>Impact study in a sea environment : theory and practice</i> - Pierre LEJEUNE	Q1	20	-	-	3
OCEA0027-1	<i>Applications of stable isotopes in marine sciences</i> - Gilles LEPOINT, Loïc MICHEL	Q1	15	15	-	3
ENVT0884-1	<i>Ecology and economy of agricultural systems</i> - Alain HAMBUCKERS	Q1	30	-	-	3
DOCU0455-1	<i>Introduction to critical thinking</i> - Yaël NAZÉ	Q2	10	5	-	3
[...]	programmes from other ULiège Masters or from outside					

#### Biology and Ecology

In agreement with the jury, chose courses that haven't already been chosen for a total of 30 credits from among:

[...] for a minimum of 18 credits in the two other modules

[...] for a maximum of 12 credits in the list of optional courses

HAAR0091-1	<i>Archaeozoology</i> - Annick GABRIEL	Q1	15	15	-	3
GEOL0099-1	<i>Evolution of the Phanerozoic biosphere</i> (english language) - Valentin FISCHER - [2d FW]	Q1	20	-	[+]	3
	<b>Prerequisite :</b> PALE0209-1 - Paléontologie					
GEOL1022-2	<i>Precambrian paleobiogeology</i> - Emmanuelle JAVAUX	Q1	20	10	-	3
GEOL0263-1	<i>Astrobiology</i> - Vincianne DEBAILLE, Véronique DEHANT, Emmanuelle JAVAUX, Yaël NAZÉ, Annick WILMOTTE (Even years)	Q2	30	15	-	3
GEOL1023-1	<i>Palynology - advanced course on Paleozoic spores</i> (Odd years)	Q2	30	-	-	3
BIOL0821-1	<i>Natural Biomaterials : ultrastructural and functional aspects</i> - Philippe COMPÈRE	Q2	30	-	-	3
BIOL0114-4	<i>Electronic microscopies, Part A</i> - Philippe COMPÈRE	Q2	15	-	-	3
CHIM9236-1	<i>Microstructure of materials : characterization techniques, Part A</i> - Catherine HENRIST	Q2	15	-	-	3
BIOL0820-1	<i>Morphological specific aspects of vertebrates : functional approach</i> - Eric PARMENTIER	Q2	30	-	-	3
NEUR0434-1	<i>Functional Neuroanatomy</i> - JeanChristophe PLUMIER	Q2	30	-	-	3
BIOL0822-1	<i>Environmental physiology</i> (english language) - JeanChristophe PLUMIER	Q1	10	20	-	3

BIOL0823-1	<i>Ultrastructural cytochemistry</i> - Philippe COMPÈRE, Marc THIRY	Q2	30	-	-	3
OCEA0083-1	<i>Physiology and biochemistry of the marine animals</i> (english language) - Philippe COMPÈRE	Q1	15	15	-	3
CHIM9212-1	<i>Biological applications of radioelements</i> - Philippe COMPÈRE	Q2	30	-	-	3
GENE0003-1	<i>Genomics</i> - Marc HANIKENNE	Q2	20	-	-	3
ZOOL0227-1	<i>Genetic foundations of aquaculture</i> - Charles MÉLARD	Q1	30	-	-	3
GENE0441-1	<i>Organelle genetics</i> - Part A - Claire REMACLE - Part B - Claire REMACLE	Q2	15	-	-	3
LABO0432-1	<i>Techniques for cells and tissue cultures</i> - Julie LECOMTE, Erik MAQUOI	Q1	8	20	-	3
GBIO0022-1	<i>Biomimetism</i> (english language) - Philippe COMPÈRE, Liesbet GERIS, Tristan GILET, Davide RUFFONI - [45h Proj.]	TA	15	-	[+]	3
SSTG0023-1	<i>Training : phylogeny and ecology of Macaronesian and Mediterranean flora</i> - Alain HAMBUECKERS, Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [10d FW]	Q2	-	-	[+]	3
BOTA0405-1	<i>In vitro culture of plants</i> - Claire KEVERS	Q2	30	-	-	3
BOTA0410-1	<i>Phylogeny of eukaryotes</i> - Denis BAURAIN	Q1	30	-	-	3
BIOL0844-1	<i>General biology of cryptogams (bryophyta and lichens)</i> - Emmanuël SÉRUSIAUX, Alain VANDERPOORTEN - Suppl : Nicolas MAGAIN	Q2	30	-	-	3
BIOL0826-2	<i>Biogeography and plant and nature conservation</i> - Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [6d FW]	Q2	-	-	[+]	3
BIOL2042-1	<i>Population Biology</i> - Johan MICHAUX - [3d FW]	Q2	10	-	[+]	3
ZOOL0228-1	<i>Demography and dynamics population of mammals and birds</i> - Roland LIBOIS	Q1	30	-	-	3
ZOOL0230-2	<i>Methods to count and monitor freshwater fish populations</i> - Michaël OVIDIO - [4d FW]	Q2	-	10	[+]	3
BIOL0828-1	(pas organisé en 2018-2019) <i>Hydrobiology and Limnology</i> - Anne GOFFART, Célia JOAQUIMJUSTO, N...	Q2	30	-	-	3
BIOL0025-1	<i>Animal symbiosis</i> - JeanChristophe PLUMIER, Stéphane ROBERTY	Q1	15	15	-	3
OCEA0084-1	<i>Marine ecotoxicology</i> (english language) - Krishna DAS	Q1	15	15	-	3
OCEA0085-1	<i>Methods of investigation, observation and analysis of marine plankton</i> - Anne GOFFART - [12h Mon. WS]	Q1	10	5	[+]	3
ZOOL0218-4	<i>Aquariology</i> - Christian MICHEL	Q1	20	-	-	3
OCEA0050-1	<i>Ecology of the Mediterranean benthos</i> - Sylvie GOBERT, Mathieu POULICEK - [30h FW]	Q1	-	-	[+]	3
OCEA0144-1	<i>Ecology of the coral reefs</i> (english language) - Mathieu POULICEK	Q1	30	-	-	3
OCEA0223-1	<i>Biodiversity of tropical coastal regions</i> - Bruno FREDERICH, Gilles LEPOINT - [15d FW]	Q2	-	-	[+]	3
OCEA0028-1	<i>Impact study in a sea environment : theory and practice</i> - Pierre LEJEUNE	Q1	20	-	-	3
OCEA0027-1	<i>Applications of stable isotopes in marine sciences</i> - Gilles LEPOINT, Loïc MICHEL	Q1	15	15	-	3
ENVT0884-1	<i>Ecology and economy of agricultural systems</i> -	Q1	30	-	-	3

AMBUCKERS

DOCU0455-1 *Introduction to critical thinking* - Yaël NAZÉ Q2 10 5 - 3

[...] for a maximum of 12 credits in the programmes from other ULiège Masters or external.

#### Teaching focus

AESS1217-1	<i>Special didactics in biology : course and exercises (1st part)</i> - MarieNoëlle HINDRYCKX	TA 40	-	-	3
	<b>Corequisite :</b> AESS1218-1 - Didactique spéciale en biologie : stages (partim I) AESS0202-1 - Didactique générale : cours et exercices ; stages d'observation ; pratiques réflexives				
AESS1218-1	<i>Special didactics in biology : placements (1st part)</i>	TA			3
	- <i>Observation placements</i> - MarieNoëlle HINDRYCKX - [10h Internship]		-	-	[+]
	- <i>Teaching placements</i> - MarieNoëlle HINDRYCKX - [20h Internship]		-	-	[+]
	- <i>Reflexive practical work</i> - MarieNoëlle HINDRYCKX		-	5	-
	<b>Corequisite :</b> AESS1217-1 - Didactique spéciale en biologie : cours et exercices (partim I) AESS0202-1 - Didactique générale : cours et exercices ; stages d'observation ; pratiques réflexives				
AESS2217-1	<i>Special didactics in biology : course and exercises (2nd part)</i> - MarieNoëlle HINDRYCKX	TA 35	-	-	4
	<b>Corequisite :</b> AESS2218-1 - Didactique spéciale en biologie : stages (partim II) AESS1218-1 - Didactique spéciale en biologie : stages (partim I) AESS1217-1 - Didactique spéciale en biologie : cours et exercices (partim I) AESS0202-1 - Didactique générale : cours et exercices ; stages d'observation ; pratiques réflexives				
AESS2218-1	<i>Special didactics in biology : placements (2nd part)</i>	TA			5
	- <i>Teaching placements</i> - MarieNoëlle HINDRYCKX - [20h Internship]		-	-	[+]
	- <i>Reflexive practical work</i> - MarieNoëlle HINDRYCKX		-	5	-
	- <i>Extra-scholar teaching activities</i> - MarieNoëlle HINDRYCKX		-	10	-
	<b>Corequisite :</b> AESS2217-1 - Didactique spéciale en biologie : cours et exercices (partim II) AESS1218-1 - Didactique spéciale en biologie : stages (partim I) AESS1217-1 - Didactique spéciale en biologie : cours et exercices (partim I) AESS0202-1 - Didactique générale : cours et exercices ; stages d'observation ; pratiques réflexives				
AESS0202-1	<i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship]	TA 30	10	[+]	4
	<b>Corequisite :</b> AESS1218-1 - Didactique spéciale en biologie : stages (partim I) AESS1217-1 - Didactique spéciale en biologie : cours et exercices (partim I)				
AESS0246-1	<i>Analysis of scholastic institutions and key-players, educational policies</i> - Dominique LAFONTAINE - Suppl : MarieThérèse DELHOUNE	Q1 15	-	-	1
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	Q2 10	-	-	1
AESS0004-1	<i>Media education</i> - Jérémy HAMERS	Q1 15	-	-	1
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	Q1 15	-	-	1
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	Q2 25	-	-	2
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	Q1 15	-	-	2
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	Q2 10	15	-	3

#### Professional focus in conservation biology : biodiversity and management

SSTG0047-2	<i>Internship: mountain biodiversity and ecology</i> - [12d FW]	Q1	-	-	[+] 4
BIOD0007-1	<i>Biodiversity analysis methods : community and populations</i> - Adeline FAYOLLE, Grégory MAHY, Arnaud MONTY - [8h FT]	Q1 20	20	[+]	3
GEOG2013-1	<i>Introduction to geomorphology, hydrography and hydrology</i> -	Q1 15	10	[+]	3

Geoffrey HOUBRECHTS - [2d FW]

SPOL2209-3	<i>Environmental and land policies</i> - - Suppl : Sophie HANSON	Q1	30	-	-	3
GEOG0643-1	<i>Citizen engagement methods and tools</i> - Geoffrey HOUBRECHTS, Christine PARTOUNE - [2d FW]	Q1	10	10	[+]	3
GEST3760-1	<i>Project management and immaterial resources</i> - Sabine HAINE, Jocelyne ROBERT	Q1	12	-	-	2
BIOL2033-1	<i>Monitoring of the biodiversity and dynamics of citizen</i> - Johann DELCOURT, Mathieu DENOËL, Alain HAMBUECKERS, Michaël OVIDIO - [8d FW]	Q1	20	24	[+]	4
BIOL2034-1	<i>Applied questions in biodiversity</i> - Emmanuël SÉRUSIAUX	TA	20	-	-	3
BIOL2035-1	<i>Day trips on the themes of conservation and territory use</i> - Emmanuël SÉRUSIAUX - [8d FW]	TA	-	-	[+]	3
GEOG0238-5	<i>Geographical Information Systems, Introduction</i> - JeanPaul DONNAY - Suppl : Pierre HALLOT	Q1	15	15	-	2

*Notice* : the dissertation will be done in a structure external to the University of Liège (public services, companies, NGO) and will relate to themes applied in the field of nature conservation. The related placement will be covered by an ad hoc agreement and led by an external placement supervisor. If necessary, students can do their placement in another country but the subject must still relate to subjects associated with continental ecosystems.

#### Bloc d'aménagement du programme de l'année

### Additional ECTS (max 15-60) Master in biology of organisms and ecology (120 ECTS)

#### Optional courses

The refresher programme, for a maximum of 60 credits, will be established by the jury of the Masters in Biology of Organisms and Ecology, depending on the student's prior training: this programme will enable the student to acquire the basic knowledge required in relevant fields (statistics, biology, biodiversity, etc.).

[...] At most 60 credits of courses

BIOL0003-1	<i>Biology of pluricellular organisms</i> - <i>Animal</i> - MarieFrance VERSALI - <i>Plant Biology</i> - Claire PÉRILLEUX	Q1	15	15	-	5
			15	15	-	

#### List of option courses

HAAR0091-1	<i>Archaeozoology</i> - Annick GABRIEL	Q1	15	15	-	3
GEOL0099-1	<i>Evolution of the Phanerozoic biosphere</i> (english language) - Valentin FISCHER - [2d FW] <b>Prerequisite :</b> PALE0209-1 - Paléontologie	Q1	20	-	[+]	3
GEOL1022-2	<i>Precambrian paleobiogeology</i> - Emmanuelle JAVAUX	Q1	20	10	-	3
GEOL0263-1	<i>Astrobiology</i> - Vincianne DEBAILLE, Véronique DEHANT, Emmanuelle JAVAUX, Yaël NAZÉ, Annick WILMOTTE (Even years)	Q2	30	15	-	3
GEOL1023-1	<i>Palynology - advanced course on Paleozoic spores</i> (Odd years)	Q2	30	-	-	3
BIOL0821-1	<i>Natural Biomaterials : ultrastructural and functional aspects</i> - Philippe COMPÈRE	Q2	30	-	-	3
BIOL0114-4	<i>Electronic microscopies, Part A</i> - Philippe COMPÈRE	Q2	15	-	-	3
CHIM9236-1	<i>Microstructure of materials : characterization techniques, Part A</i> -	Q2	15	-	-	3

Catherine HENRIST

BIOL0820-1	<i>Morphological specific aspects of vertebrates : functional approach</i> - Eric PARMENTIER	Q2	30	-	-	3
NEUR0434-1	<i>Functional Neuroanatomy</i> - JeanChristophe PLUMIER	Q2	30	-	-	3
BIOL0822-1	<i>Environmental physiology (english language)</i> - JeanChristophe PLUMIER	Q1	10	20	-	3
BIOL0823-1	<i>Ultrastructural cytochemistry</i> - Philippe COMPÈRE, Marc THIRY	Q2	30	-	-	3
OCEA0083-1	<i>Physiology and biochemistry of the marine animals (english language)</i> - Philippe COMPÈRE	Q1	15	15	-	3
CHIM9212-1	<i>Biological applications of radioelements</i> - Philippe COMPÈRE	Q2	30	-	-	3
GENE0003-1	<i>Genomics</i> - Marc HANIKENNE	Q2	20	-	-	3
ZOOL0227-1	<i>Genetic foundations of aquaculture</i> - Charles MÉLARD	Q1	30	-	-	3
GENE0441-1	<i>Organelle genetics</i> - Part A - Claire REMACLE - Part B - Claire REMACLE	Q2	15	-	-	3
LABO0432-1	<i>Techniques for cells and tissue cultures</i> - Julie LECOMTE, Erik MAQUOI	Q1	8	20	-	3
GBIO0022-1	<i>Biomimetism (english language)</i> - Philippe COMPÈRE, Liesbet GERIS, Tristan GILET, Davide RUFFONI - [45h Proj.]	TA	15	-	[+]	3
SSTG0023-1	<i>Training : phylogeny and ecology of Macaronesian and Mediterranean flora</i> - Alain HAMBUECKERS, Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [10d FW]	Q2	-	-	[+]	3
BOTA0405-1	<i>In vitro culture of plants</i> - Claire KEVERS	Q2	30	-	-	3
BOTA0410-1	<i>Phylogeny of eukaryotes</i> - Denis BAURAIN	Q1	30	-	-	3
BIOL0844-1	<i>General biology of cryptogams (bryophyta and lichens)</i> - Emmanuël SÉRUSIAUX, Alain VANDERPOORTEN - Suppl : Nicolas MAGAIN	Q2	30	-	-	3
BIOL0826-2	<i>Biogeography and plant and nature conservation</i> - Emmanuël SÉRUSIAUX - Suppl : Nicolas MAGAIN - [6d FW]	Q2	-	-	[+]	3
BIOL2042-1	<i>Population Biology</i> - Johan MICHAUX - [3d FW]	Q2	10	-	[+]	3
ZOOL0228-1	<i>Demography and dynamics population of mammals and birds</i> - Roland LIBOIS	Q1	30	-	-	3
ZOOL0230-2	<i>Methods to count and monitor freshwater fish populations</i> - Michaël OVIDIO - [4d FW]	Q2	-	10	[+]	3
BIOL0828-1	(pas organisé en 2018-2019) <i>Hydrobiology and Limnology</i> - Anne GOFFART, Célia JOAQUIMJUSTO, N...	Q2	30	-	-	3
BIOL0025-1	<i>Animal symbiosis</i> - JeanChristophe PLUMIER, Stéphane ROBERTY	Q1	15	15	-	3
OCEA0084-1	<i>Marine ecotoxicology (english language)</i> - Krishna DAS	Q1	15	15	-	3
OCEA0085-1	<i>Methods of investigation, observation and analysis of marine plankton</i> - Anne GOFFART - [12h Mon. WS]	Q1	10	5	[+]	3
ZOOL0218-4	<i>Aquariology</i> - Christian MICHEL	Q1	20	-	-	3
OCEA0050-1	<i>Ecology of the Mediterranean benthos</i> - Sylvie GOBERT, Mathieu POULICEK - [30h FW]	Q1	-	-	[+]	3
OCEA0144-1	<i>Ecology of the coral reefs (english language)</i> - Mathieu POULICEK	Q1	30	-	-	3
OCEA0223-1	<i>Biodiversity of tropical coastal regions</i> - Bruno FREDERICH, Gilles LEPOINT - [15d FW]	Q2	-	-	[+]	3
OCEA0028-1	<i>Impact study in a sea environment : theory and practice</i> - Pierre LEJEUNE	Q1	20	-	-	3
OCEA0027-1	<i>Applications of stable isotopes in marine sciences</i> - Gilles LEPOINT, Loïc MICHEL	Q1	15	15	-	3

ENVT0884-1	<i>Ecology and economy of agricultural systems</i> - Alain HAMBUCKERS	Q1	30	-	-	<b>3</b>
DOCU0455-1	<i>Introduction to critical thinking</i> - Yaël NAZÉ	Q2	10	5	-	<b>3</b>