

**Cycle view of the study programme**

		B1	Or	Th	Pr	Au	Cr
<b>Compulsory courses (B1 : 60Cr, B2 : 30Cr)</b>							
AESS0320-1	<i>Initiation to biology didactics</i> - MarieNoëlle HINDRYCKX	B1	Q1	20	20	-	2
<b>Biology of Organisms</b>							
GENE0446-2	<i>Population genetics</i> - Johan MICHAUX, Claire REMACLE	B1	Q1	25	15	-	4
BIOL2040-1	<i>Taxonomy and phylogeny of chlorophyll lines</i> - Emmanuël SÉRUSIAUX <b>Corequisite :</b> GENE0448-1 - Méthodes de phylogénie BIOL2041-1 - Taxonomie et phylogénie animales	B1	Q1	25	15	-	3
BIOL2041-1	<i>Animal taxonomy and phylogeny</i> - Patrick DAUBY <b>Corequisite :</b> GENE0448-2 - Méthodes de phylogénie BIOL2040-1 - Taxonomie et phylogénie des lignées chlorophylliennes	B1	Q1	40	30	-	5
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	B1	Q1	20	15	-	3
PALE0209-1	<i>Paleontology</i> - Valentin FISCHER, Philippe GERRIENNE, Emmanuelle JAVAUX	B1	Q2	40	30	-	6
BIOL0808-2	<i>Functional morphology</i> - Eric PARMENTIER - [1d Vis.]	B1	Q1	20	25	[+]	4
<b>Ecology</b>							
BIOL0809-1	<i>Ecophysiology, ethology</i> - Mathieu DENOËL, Claire PÉRILLEUX, JeanChristophe PLUMIER - [3d FW]	B1	Q1	40	15	[+]	6
BIOL0810-2	<i>Conservation Biology</i> - Emmanuël SÉRUSIAUX - [1d FW]	B1	Q2	40	20	[+]	6
BIOL0811-1	<i>Natural resources and ecosystem disruptions</i> - Monique CARNOL, Célia JOAQUIMJUSTO, JeanPierre THOMÉ - [1d FW]	B1	Q2	40	39	[+]	7
BIOL0812-2	<i>Biogeography</i> - Johan MICHAUX, Alain VANDERPOORTEN - [3d FW]	B1	Q2	30	-	[+]	4
BIOL2042-1	<i>Population Biology</i> - Johan MICHAUX - [3d FW]	B1	Q2	10	-	[+]	2
<b>Placement in the ecology field.</b>							
SSTG0024-1	<i>Training : biodiversity, phylogeny and marine ecology</i> - Patrick DAUBY, Véronique GOOSSE, Mathieu POULICEK, JeanPierre THOMÉ - [10d FW]	B1	Q2	-	-	[+]	4
SSTG0046-1	<i>Naturalistic building upon applied in conservation</i> - Emmanuël SÉRUSIAUX - [10d FW]	B1	TA	-	-	[+]	4
<i>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).</i>							
SMEM0013-1	<i>Final thesis</i> - COLLÉGIALITÉ <b>Corequisite :</b> BIOL0843-1 - Préparation à la réalisation du mémoire	B2	TA	-	-	-	28
BIOL0843-1	<i>Preparation to the final thesis</i> - COLLÉGIALITÉ <b>Corequisite :</b> SMEM0013-1 - Mémoire	B2	TA	-	-	-	2

**Focus to be chosen (B2 : 30Cr)**

**Choose one focus from the following : (B2 : 1Nbr)**

**Research Focus (B2 : 30Cr)**

STAT0750-1	<i>Multivariate statistical analysis (software R)</i> -	B2	Q1	10	10	-	2
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AESBROECK

LANG2971-1	<i>Academic English Writing</i> (english language) - Clara BRERETON, Véronique DOPPAGNE, ISLV	B2	Q1	30	-	-	4
DOCU0448-2	<i>Documentation training applied to biology</i> - Ninfa GRECO - [20h Mon. WS]	B2	Q1	-	-	[+]	2
SSTG0040-1	<i>Professional development file</i> - Monique CARNOL, Sandrine MALCHAIR - [30h Mon. WS]	B2	TA	30	-	[+]	7

**Corequisite :**  
BIOL0843-1 - Préparation à la réalisation du mémoire  
SMEM0013-1 - Mémoire

In agreement with the Jury, choose courses for a total of 15 credits from : (B2 : 15Cr)

BIOL0820-1	<i>Morphological specific aspects of vertebrates : functional approach</i> - Eric PARMENTIER	B2	Q2	30	-	-	3
GEOL0099-1	<i>Evolution of the Phanerozoic biosphere</i> (english language) - Valentin FISCHER - [2d FW]	B2	Q1	20	-	[+]	3

**Prerequisite :**  
PALE0209-1 - Paléontologie  
**Corequisite :**  
GEOL1022-2 - Evolution de la biosphère précambrienne

HAAR0091-2	<i>Archaeozoology</i> - Annick GABRIEL	B2	Q1	30	-	-	3
ZOOL0218-4	<i>Aquariology</i> - Christian MICHEL	B2	Q1	30	-	-	3
BIOL0821-1	<i>Natural Biomaterials : ultrastructural and functional aspects</i> - Philippe COMPÈRE	B2	Q2	30	-	-	3
BIOL0114-4	<i>Electronic microscopies</i> - Philippe COMPÈRE	B2	Q2	15	-	-	3
CHIM9236-1	<i>Microstructure of Materials : characterization techniques</i> - Catherine HENRIST	B2	Q2	15	-	-	3
GEOL1022-2	<i>Evolution of the biosphere in the Precambrian</i> - Emmanuelle JAVAUX	B2	Q1	20	10	-	3
GEOL0263-2	<i>Astrobiology</i> - Philippe CLAEYS, Véronique DEHANT, Moreno GALLEN, Emmanuelle JAVAUX, Yaël NAZÉ, Annick WILMOTTE (Even years)	B2	Q2	30	-	-	3
NEUR0434-1	<i>Functional Neuroanatomy</i> - JeanChristophe PLUMIER	B2	Q2	30	-	-	3
BIOL0822-1	<i>Advanced Course in Animal Physiology</i> - JeanChristophe PLUMIER	B2	Q2	30	-	-	3
BIOL0823-1	<i>Ultrastructural cytochemistry</i> - Philippe COMPÈRE, Marc THIRY	B2	Q2	30	-	-	3
OCEA0083-1	<i>Physiology and biochemistry of the marine animals</i> (english language) - Philippe COMPÈRE	B2	Q1	15	15	-	3
CHIM9212-1	<i>Biological applications of radioelements</i> - Philippe COMPÈRE	B2	Q2	30	-	-	3
ZOOL0227-1	<i>Genetic foundations of aquaculture</i> - Charles MÉLARD	B2	Q1	30	-	-	3
GENE0441-1	<i>organelle genetics</i> - Claire REMACLE	B2	Q2	30	-	-	3
LABO0432-2	<i>Techniques for cells and tissue cultures</i> - MarieClaire GILLET	B2	Q1	30	-	-	3
GBIO0022-1	<i>Biomimeticism</i> (english language) - Philippe COMPÈRE, Liesbet GERIS, Tristan GILET, Eric PARMENTIER, Davide RUFFONI - [45h Proj.]	B2	TA	15	-	[+]	3
BIOL0025-1	<i>Animal symbiosis</i> - JeanChristophe PLUMIER	B2	Q2	30	-	-	3
GBIO0005-2	<i>Introduction to cognitive neurosciences</i> - Gilles VANDEWALLE	B2	Q2	15	15	-	3
SSTG0023-1	<i>Training : phylogeny and ecology of Macaronesian and Mediterranean flora</i> - Alain HAMBUECKERS,	B2	Q2	-	-	[+]	3

ÉRUSIAUX - [10d FW]							
GEOL1023-1	<i>Palynology - advanced course on Paleozoic spores -</i> Philippe STEEMANS (Odd years)	B2	Q2	30	-	-	3
BOTA0405-1	<i>In vitro culture of plants -</i> Claire KEVERS	B2	Q2	30	-	-	3
BOTA0410-1	<i>Phylogeny of eukaryotes -</i> Denis BAURAIN	B2	Q1	30	-	-	3
BIOL0844-1	<i>General biology of cryptogams (bryophyta and lichens) -</i> Emmanuel SÉRUSIAUX, Alain VANDERPOORTEN	B2	Q2	30	-	-	3
BIOL0826-2	<i>Biogeography and plant and nature conservation -</i> Emmanuel SÉRUSIAUX - [6d FW]	B2	Q2	-	-	[+]	3
ZOOL0228-1	<i>Demography and dynamics population of mammals and birds -</i> Roland LIBOIS	B2	Q1	30	-	-	3
ZOOL0230-2	<i>Development and management of freshwater fish population and their habitat -</i> Michaël OVIDIO	B2	Q1	10	18	-	3
BIOL0828-1	<i>Hydrobiology and Limnology -</i> Anne GOFFART, Célia JOAQUIMJUSTO, JeanPierre THOMÉ	B2	Q1	30	-	-	3
ENVT0737-2	<i>Transfer and ecotoxicology of the micropollutants in the watery ecosystems -</i> Célia JOAQUIMJUSTO, JeanPierre THOMÉ	B2	Q1	30	-	-	3
<b>Prerequisite :</b> BIOL0811-1 - Ressources naturelles et perturbations des écosystèmes							
OCEA0084-1	<i>Marine ecotoxicology (english language) -</i> Krishna DAS	B2	Q1	15	15	-	3
OCEA0001-3	<i>Oceanology and underwater biology -</i> Sylvie GOBERT	B2	Q2	30	-	-	3
OCEA0085-1	<i>Methods of investigation, observation and analysis of marine plankton -</i> Anne GOFFART - [12h Mon. WS]	B2	Q1	10	5	[+]	3
OCEA0050-1	<i>Ecology of the Mediterranean benthos -</i> Sylvie GOBERT, Mathieu POULICEK - [30h FW]	B2	Q1	-	-	[+]	3
OCEA0144-1	<i>Ecology of the coral reefs (english language) -</i> Mathieu POULICEK	B2	Q1	30	-	-	3
ENVT0884-1	<i>Ecology and economy of agricultural systems -</i> Alain HAMBUECKERS	B2	Q1	30	-	-	3
PSYC1063-1	<i>Social ethology -</i> Fany BROTCORNE, Pascal PONCIN	B2	Q2	30	-	-	3
PSYC1064-1	<i>Behavioural primatology -</i> Fany BROTCORNE	B2	Q1	30	-	-	3
ZOOL0002-2	<i>Ethology applied to population management -</i> Pascal PONCIN - [1d FW]	B2	Q2	20	-	[+]	3
ZOOL0232-1	<i>Ethology and amphibian conservation -</i> Mathieu DENOËL - [1d FW]	B2	Q1	20	-	[+]	3
ZOOL0231-2	<i>Rhythms and behaviour in fish : endocrine aspects -</i> Pascal PONCIN - [1d FW]	B2	Q2	20	-	[+]	3
OCEA0043-2	<i>Ecoethology of the marine animals -</i> Christian MICHEL	B2	Q1	30	-	-	3
VETE0014-1	<i>Domestic Animal Behaviour Science -</i> Marc VANDENHEEDE	B2	Q1	32	-	-	3
PSYC0061-1	<i>Animal cognition -</i> André FERRARA	B2	Q2	30	-	-	3
PSYC0063-1	<i>Behavioural neuroendocrinology -</i> Charlotte CORNIL	B2	Q1	30	-	-	3
DOCU0455-1	<i>Introduction to critical thinking -</i> Yaël NAZÉ	B2	Q2	10	5	-	3
GENE0003-1	<i>Genomics -</i> Marc HANIKENNE	B2	Q1	20	-	-	3
OCEA0028-1	<i>Impact study in a sea environment : theory and practice -</i> Pierre LEJEUNE	B2	Q1	20	-	-	3
ZOOL2021-1	<i>Ecology and dynamics of freshwater fish populations -</i> Michaël OVIDIO	B2	Q1	10	20	-	3

[...] With the agreement of the jury and the dissertation supervisor, students have the possibility to choose one or two courses from another option or another Masters.

#### Teaching focus (B2 : 30Cr)

AESS1217-1	<i>Special didactics in biology : course and exercises (1st part)</i> - MarieNoëlle HINDRYCKX	B2	TA	40	-	-	<b>3</b>
	<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> - <i>Observation placements</i> - MarieNoëlle HINDRYCKX - [10h Internship] - <i>Teaching placements</i> - MarieNoëlle HINDRYCKX - [20h Internship] - <i>Reflexive practical work</i> - MarieNoëlle HINDRYCKX	B2	TA		-	-	<b>3</b>
	<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	B2	TA	35	-	-	<b>4</b>
	<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> - <i>Teaching placements</i> - MarieNoëlle HINDRYCKX - [20h Internship] - <i>Reflexive practical work</i> - MarieNoëlle HINDRYCKX - <i>Extra-scholar teaching activities</i> - MarieNoëlle HINDRYCKX	B2	TA		-	-	<b>5</b>
	<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]	B2	TA	30	10	[+]	<b>4</b>
	<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	B2	Q1	15	-	-	<b>1</b>
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	B2	Q2	10	-	-	<b>1</b>
AESS0004-1	<i>Media education</i> - Jérémy HAMERS	B2	Q1	15	-	-	<b>1</b>
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	B2	Q2	15	-	-	<b>1</b>
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	B2	Q2	25	-	-	<b>2</b>
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	B2	Q1	15	-	-	<b>2</b>
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	B2	Q2	10	15	-	<b>3</b>

#### Professional focus in conservation biology : biodiversity and management (B2 : 30Cr)

SSTG0047-2	<i>Internship: mountain biodiversity and ecology</i> - COLLÉGIALITÉ - [12d FW]	B2	Q1	-	-	[+]	<b>3</b>
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BIOD0007-1	<i>Biodiveristy analysis methods : community and populations -</i> Adeline FAYOLLE, Grégory MAHY, Arnaud MONTY - [8h FT]	B2	Q1	26	26	[+]	3
GEOG2013-1	<i>Introduction to geomorphology, hydrography and hydrology -</i> Geoffrey HOUBRECHTS - [2d FW]	B2	Q1	15	10	[+]	3
SPOL2209-3	<i>Environmental and land policies -</i> Sophie HANSON	B2	Q1	30	-	-	3
GEOG0643-1	<i>Citizen engagement methods and tools -</i> Christine PARTOUNE - [2d FW]	B2	Q1	10	10	[+]	3
GEST3760-1	<i>Project management and immaterial resources -</i> Sabine HAINE, Jocelyne ROBERT	B2	Q1	12	-	-	2
BIOL2033-1	<i>Monitoring of the biodiversity and dynamics of citizen -</i> Johann DELCOURT, Mathieu DENOËL, Alain HAMBUCKERS, Michaël OVIDIO - [8d FW]	B2	Q1	20	24	[+]	4
BIOL2034-1	<i>Applied questions in biodiversity -</i> Emmanuël SÉRUSIAUX	B2	TA	20	-	-	2
BIOL2035-1	<i>Day trips on the themes of conservation and territory use -</i> Emmanuël SÉRUSIAUX - [8d FW]	B2	TA	-	-	[+]	3
GEOG0238-5	<i>Geographical Information Systems, Introduction - -</i> Suppl : Pierre HALLOT	B2	Q1	15	15	-	2
STAT1751-1	<i>Statistical analysis for conservation biologists -</i> Gentiane HAESBROECK	B2	Q1	10	10	-	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.

## Additional ECTS Master in biology of organisms and ecology

### Compulsory courses (B0 : 55Cr)

STAT0076-1	<i>General statistics -</i> Catherine TIMMERMANS	B0	Q1	30	20	-	5
STAT0077-1	<i>Computing analysis and processing of biological data -</i> Patrick MEYER	B0	Q2	25	-	-	2
MICR1715-2	<i>Microbiology</i> - <i>Part 1 : Algology and Mycology -</i> Denis BAURAIN - <i>Patrim 2 : Bacteriology -</i> Bernard JORIS	B0	Q1	20	10	-	5
BIOL0216-1	<i>Animal physiology -</i> JeanChristophe PLUMIER, Marc THIRY	B0	Q1	60	30	-	6
BIOL0217-1	<i>Vegetal physiology -</i> Claire PÉRILLEUX	B0	Q2	35	20	-	5
IMMU0521-1	<i>Immunology -</i> Catherine SADZOT	B0	Q2	25	10	-	3
BIOL0003-1	<i>Biology of pluricellular organisms</i> - <i>Animal -</i> MarieFrance VERSALI - <i>Plant Biology -</i> Claire PÉRILLEUX	B0	Q1	15	15	-	5
BIOC9244-1	<i>Molecular genetics and biology -</i> Jacques DOMMES	B0	Q1	20	10	-	3
BIOL2036-1	<i>Animal Biodiversity Measures and Applications -</i> Sylvie GOBERT, Mathieu POULICEK	B0	Q1	10	15	-	2
BIOL2037-1	<i>Biodiversity : introduction to evolutionary biology and description of</i> <i>vegetation -</i> Emmanuël SÉRUSIAUX - [1d FW]	B0	Q2	30	20	[+]	4
BIOL2038-1	<i>Soil ecology and microbiology -</i> Monique CARNOL - [1d FW]	B0	Q1	25	10	[+]	3

BIOL2039-1	<i>Freshwater Ecology</i> - Véronique GOOSSE, Célia JOAQUIMJUSTO, JeanPierre THOMÉ - [3d FW]	B0	Q2	15	-	[+]	2
STRA0045-1	<i>Training in scientific communication</i> - Monique CARNOL, Patrick DAUBY - [50h Internship]	B0	Q2	-	-	[+]	4
PHIL1106-1	<i>Philosophy and bioethics</i> - Part : <i>Philosophy</i> - Julien PIERON - Part : <i>Bioethics</i> - Florence CAEYMAEX, Jacques DOMMES, Vincent GEENEN	B0	Q2	15	-	-	2
LANG0082-1	<i>English 3 (english language)</i> - Clara BRERETON, Véronique DOPPAGNE, Ellen HARRY, ISLV	B0	TA	45	-	-	4

#### Optional courses (B0 : 5Cr)

Depending on the student's educational background and in agreement with the jury, choose courses for a total of 5 credits from : (B0 : 5Cr)

MICR1716-1	<i>Virology</i> - Catherine SADZOT	B0	Q2	20	10	-	2
BIOC9245-1	<i>Macromolecules chemistry</i> - Moreno GALLEN, Loïc QUINTON	B0	Q2	20	10	-	3
ZOOL0205-1	<i>Ethology and animal psychology</i> - Pascal PONCIN	B0	Q1	30	-	-	3
GEOL0311-1	<i>Geology and elements of paleontology</i> - Emmanuelle JAVAUX - Suppl : Camille FRANÇOIS - [4d FW]	B0	Q1	25	15	[+]	5
BIOL0019-1	<i>Introduction to animal embryology</i> - Vincent GEENEN	B0	Q2	15	-	-	2
DOCU0033-2	<i>Training in the exploitation of documentary resources</i> - Ninfa GRECO	B0	Q1	8	12	-	2
OCEA0222-1	<i>Introduction to marine biology and biological oceanography</i> - Sylvie GOBERT	B0	Q2	-	45	-	2