## Cycle view of the study programme

| | | Bl | Or | Th | Pr | Au | Cr |
|---|---|---|---|---|---|---|---|
| **Core curriculum compulsory courses (B1 : 52Cr, B2 : 30Cr)** | | | | | | | |
| BIOL0852-1 | *Ecosystems and climate change* - Monique CARNOL | B1 | Q2 | 24 | 16 | - | **3** |
| BIOL0810-2 | *Conservation biology* - Nicolas MAGAIN | B1 | Q2 | 30 | - | - | **4** |
| BIOL0808-2 | *Functional morphology*<br>- *Marine vertebrates* - Eric PARMENTIER<br>- *Birds, mammals, biomimicry* - Eric PARMENTIER - [1d FW] | B1 | Q1<br>15<br>10 | <br>10<br>15 | <br>-<br>[+] | | **4** |
| PALE0209-1 | *Paleontology*<br>- *Micropaleontology* - Emmanuelle JAVAUX<br>- *Macropaleontology* - Valentin FISCHER, Cyrille PRESTIANNI | B1 | Q1<br>10<br>15 | <br>-<br>5 | <br>-<br>- | | **3** |
| BIOL0866-1 | *Ecophysiology* - Claire PÉRILLEUX, JeanChristophe PLUMIER, Stéphane ROBERTY | B1 | Q1 | 25 | 15 | - | **3** |
| BIOL2213-1 | *Behavioural ecology* - Mathieu DENOËL, Laurane WINANDY | B1 | Q1 | 20 | - | - | **3** |
| BIOL0854-1 | *Ecotoxicology* (english language) - Célia JOAQUIMJUSTO, Yves MARNEFFE | B1 | Q1 | 20 | 18 | - | **4** |
| BIOL0812-2 | *Biogeography* - Alain VANDERPOORTEN | B1 | Q2 | 25 | - | - | **3** |
| GENE0446-2 | *Population genetics* - Johan MICHAUX, Claire REMACLE | B1 | Q1 | 20 | 10 | - | **3** |
| GENE0448-1 | *Phylogenetic methods* - Denis BAURAIN | B1 | Q1 | 20 | 15 | - | **3** |
| BIOL2041-1 | *Taxonomy and animal phylogeny* - Loïc MICHEL | B1 | Q1 | 25 | 15 | - | **4** |
| BIOL2040-1 | *Taxonomy and phylogeny of chlorophyll lines* - Nicolas MAGAIN | B1 | Q2 | 25 | 15 | - | **4** |
| SSTG0069-1 | *Professional internship* - Fany BROTCORNE, Gilles LEPOINT, Nicolas MAGAIN, JeanChristophe PLUMIER, Carole ROUGEOT - [20d FW] | B1 | TA | - | - | [+] | **8** |
| BIOL0856-1 | *Data analysis in ecology, ethology and evolutionary biology* - Bruno FREDERICH | B1 | Q1 | - | 20 | - | **3** |
| SMEM0013-1 | *Final thesis* - COLLÉGIALITÉ, Bruno FREDERICH | B2 | TA | - | - | - | **27** |
| | *Notice* : Students who handle animals within the framework of their dissertation must have the Certificate in laboratory animal sciences, grade: animal biotechnologist. Prof. Mathieu DENOEL). | | | | | | |
| DOCU0462-1 | *Preparing a dissertation in the biology of organisms and ecology* - Monique CARNOL - [15h Mon. WS] | B2 | Q1 | 15 | - | [+] | **3** |
| **Common core courses (B1 : 8Cr)** | | | | | | | |
| **In agreement with the Jury, choose one of the following fiel placement modules: (B1 : 1Nbr)** | | | | | | | |
| **Conservation and Biodiversity Module (B1 : 8Cr)** | | | | | | | |
| SSTG0046-1 | *Naturalistic building upon applied in conservation* - Nicolas MAGAIN - [8d FW] | B1 | TA | - | - | [+] | **4** |
| SSTG0066-1 | *Internship: ecology applied to monitoring and conserving biodiversity* - Flavien COLLART, Mathieu DENOËL, Nicolas MAGAIN, Loïc MICHEL, Laurane WINANDY - [9d FW] | B1 | Q2 | - | - | [+] | **4** |
| **Ecology and Biodiversity Module (B1 : 8Cr)** | | | | | | | |
| SSTG0024-1 | *Training: biodiversity, phylogeny and ecology* - Flavien COLLART, Bruno FREDERICH, Véronique GOOSSE, Loïc MICHEL, Stéphane ROBERTY, Laurane WINANDY - [10d FW] | B1 | TA | - | - | [+] | **5** |
| In agreement with the Jury, choose a field placement from among: (B1 : 3Cr) | | | | | | | |
| SSTG0064-1 | *Applied biogeography* - Flavien COLLART, Alain VANDERPOORTEN - [6d FW] | B1 | Q2 | - | - | [+] | **3** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SSTG0053-1 | *Integrated ethometry internship* - Fany BROTCORNE, Mathieu DENOËL - [4d FW] | B1 | Q2 | - | 10 | [+] | **3** |

**Focus optional courses (B2 : 30Cr)**

**Choose one module from : (B2 : 1Nbr)**

**Module: Fundamental and applied eco-ethology (B2 : 15Cr)**

Choose 3 courses (15 credits) from: (B2 : 15Cr)

**General courses in ethology**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BIOL1063-1 | *Social ethology* - Fany BROTCORNE, Laurane WINANDY | B2 | Q1 | 20 | 10 | - | **5** |
| PSYC0063-1 | *Behavioural neuroendocrinology* - Charlotte CORNIL | B2 | Q1 | 30 | - | - | **5** |
| BIOL0858-1 | *Animal communication* - Fany BROTCORNE, JeanChristophe PLUMIER | B2 | Q1 | 20 | 10 | - | **5** |
| ANTH0057-1 | *Anthropology of the nature of animals* - Véronique SERVAIS | B2 | Q1 | 30 | - | - | **5** |

**Ethology of wildlife and management of fauna**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BIOL1064-1 | *Behavioural primatology* - Fany BROTCORNE | B2 | Q1 | 30 | - | - | **5** |
| RAVT0002-2 | *Eco-ethology and wildlife conservation* - Pascal PONCIN - [1d FW] | B2 | Q2 | 20 | - | [+] | **5** |
| VETE0014-1 | *Domestic Animal Behaviour Science* - Marc VANDENHEEDE | B2 | Q1 | 32 | - | - | **5** |
| BIOL0859-1 | *Insect behaviour* - Frédéric FRANCIS, François VERHEGGEN | B2 | Q1 | 20 | 10 | - | **5** |
| ZOOL2021-1 | *Ecology and dynamics of freshwater fish populations*<br>- *Theory* - Michaël OVIDIO<br>- *Practice* - Michaël OVIDIO | B2 | Q1<br>10<br>- | -<br>20 | -<br>- | | **5** |
| SSTG0062-1 | (pas organisé en 2025-2026) *Internship: Ecology and the conservation of freshwater communities and amphibians* - N... - [13d FW] | B2 | TA | - | - | [+] | **5** |

**Module: Biology, Ecology and Ecotoxicology (B2 : 15Cr)**

Choose 3 courses (15 credits) from: (B2 : 15Cr)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BIOL0861-1 | *Integrated management of entomological biodiversity* - Rudy CAPARROS MEGIDO, Frédéric FRANCIS | B2 | Q1 | 15 | 15 | - | **5** |
| OCEA0084-1 | *Marine ecotoxicology* (english language) - Krishna DAS - [15h Mon. WS] | B2 | Q1 | 15 | - | [+] | **5** |
| BIOL0862-1 | *Quantification of the environmental risk associated with pollutants and decision-making* (english language) - Célia JOAQUIMJUSTO | B2 | Q1 | 16 | 8 | - | **5** |
| OCEA0227-1 | *Tools for analysis and assistance for integrated management* - JeanFrançois DELIÈGE, Sylvie GOBERT - [5h Mon. WS] | B2 | Q1 | 15 | 15 | [+] | **5** |
| BOTA0410-1 | *Phylogeny of eukaryotes* - Denis BAURAIN | B2 | Q1 | 30 | - | - | **5** |
| BIOL0025-1 | *Animal symbiosis* - Stéphane ROBERTY | B2 | Q1 | 15 | 15 | - | **5** |
| BIOL0030-1 | *Modeling dynamical biological systems* (english language) - Marilaure GRÉGOIRE, Patrick MEYER - [15h Mon. WS] | B2 | Q1 | 15 | - | [+] | **5** |
| OCEA0085-1 | *Methods of investigation, observation and analysis of marine plankton* - Anne GOFFART - [17h Mon. WS] | B2 | Q1 | 10 | - | [+] | **5** |
| OCEA0223-1 | *Biodiversity of tropical coastal regions: study and intercultural context* - Bruno FREDERICH, Gilles LEPOINT, Aliénor PIRLET, Richard RASOLOFONIRINA - [12d FW] | B2 | Q2 | 10 | - | [+] | **5** |
| CHIM9212-1 | *Biological applications of radioelements* - Philippe COMPÈRE | B2 | Q2 | 30 | - | - | **5** |

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|---|---|---|---|---|---|---|---|
| BIOL2042-1 | *Population Biology* - Johan MICHAUX - [3d FW] | B2 | Q2 | 10 | - | [+] | **5** |
| BIOL0821-1 | *Natural Biomaterials : ultrastructural and functional aspects* - Philippe COMPÈRE | B2 | Q2 | 30 | - | - | **5** |
| GBIO0022-1 | *Biomimicry* (english language) - Philippe COMPÈRE, Tristan GILET, Davide RUFFONI - [45h Proj.] | B2 | TA | 15 | - | [+] | **5** |
| GEOG0238-5 | *Geographical Information Systems, Introduction* - Roland BILLEN, François JONARD | B2 | Q1 | 15 | 15 | - | **5** |

In agreement with the Jury, choose from the Master's programme in biology of organisms and ecology, courses not already taken for a total of 15 credits (B2 : 15Cr)

[...] courses from the master in biology of organisms and ecology

[...] Module courses

[...] List of option courses

Exceptionally, and in agreement with the Jury, one or several courses may be chosen from the courses' programmes of other field of education of the Faculty of Sciences, other faculties or other universities (for example, in connection with the final dissertation, etc.).

**List of option courses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HAAR0091-1 | *Archaeozoology* - Annick GABRIEL | B2 | Q1 | 15 | 15 | - | **3** |
| ENVT3045-1 | *Ecosystems : conditions, anthropic impacts and management* - Dorothée DENAYER, Célia JOAQUIMJUSTO - [16h Cl. inv.] | B2 | Q2 | 4 | 20 | [+] | **3** |
| GEOL0099-1 | *Biodiversity and extinctions* (english language) - Valentin FISCHER - [2d FW] | B2 | Q1 | 25 | - | [+] | **3** |
| GEOL1022-2 | *Origin and early evolution of life* (english language) - Emmanuelle JAVAUX | B2 | Q1 | 20 | 10 | - | **3** |
| GEOL0263-1 | *Astrobiology* (english language) - Kristin BARTIK, Pierre CARDOL, Vinciane DEBAILLE, Michaël GILLON, Emmanuelle JAVAUX, Yannick LARA, Yaël NAZÉ, AnnCarine VANDAELE, Annick WILMOTTE | B2 | Q2 | 45 | - | - | **3** |
| BIOL0114-4 | *Electronic microscopies, Part A* - Philippe COMPÈRE | B2 | Q2 | 15 | - | - | **3** |
| NEUR0434-1 | *Functional Neuroanatomy* - JeanChristophe PLUMIER | B2 | Q2 | 30 | - | - | **3** |
| BIOL0822-1 | *Environmental physiology* (english language) - JeanChristophe PLUMIER | B2 | Q1 | 10 | 20 | - | **3** |
| BIOL0823-1 | *Ultrastructural cytochemistry* - Philippe COMPÈRE, Marc THIRY | B2 | Q2 | 30 | - | - | **3** |
| OCEA0083-1 | *Physiology and biochemistry of the marine animals* (english language) - Philippe COMPÈRE | B2 | Q1 | 15 | 15 | - | **3** |
| GENE0003-1 | *Genomics* - Marc HANIKENNE | B2 | Q2 | 20 | - | - | **3** |
| OCEA0226-1 | *Introduction to aquaculture* - Carole ROUGEOT | B2 | Q1 | 30 | - | - | **3** |
| GENE0441-1 | *Organelle genetics*<br>- *Part A* - Claire REMACLE<br>- *Part B* - Claire REMACLE | B2 | Q2<br>15<br>15 | <br>-<br>- | <br>-<br>- | | **3** |
| ZOOL0230-2 | *Methods to count and monitor freshwater fish populations* - Michaël OVIDIO - [4d FW] | B2 | Q2 | 10 | - | [+] | **3** |
| OCEA0144-1 | *Biology of coral reefs* (english language) - Stéphane ROBERTY | B2 | Q1 | 30 | - | - | **3** |
| OCEA0027-1 | *The study of stable isotopes and application to environmental sciences* - Gilles LEPOINT, Loïc MICHEL | B2 | Q1 | 15 | 15 | - | **3** |
| BIOC9245-1 | *Macromolecules chemistry* - Moreno GALLENI, Loïc QUINTON | B2 | Q2 | 20 | 10 | - | **3** |
| OCEA0230-1 | *Marine invertebrate zoology* - Loïc MICHEL | B2 | Q1 | 20 | 10 | - | **3** |
| PHYS0999-1 | *Digital creation in sciences* - Roland BILLEN, Valentin FISCHER, Pierre MATHONET, JeanChristophe MONBALIU, Eric PARMENTIER, | B2 | TA | 10 | - | [+] | **3** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Nicolas VANDEWALLE - [30h Proj.] | | | | | | |
| DOCU0455-1 | *Introduction to critical thinking*<br>- *Theory* - Yaël NAZÉ<br>- *Practice* - Yaël NAZÉ | B2 | Q2<br>10<br>- | <br>-<br>6 | <br>-<br>- | | **3** |
| LANG2971-2 | *Academic English Writing* (english language) - Clara BRERETON | B2 | Q1 | 25 | - | - | **3** |
| LANG4007-1 | *English - oral expression* (english language) - Clara BRERETON | B2 | Q2 | - | 25 | - | **3** |
| GBIO0005-1 | *Introduction to cognitive neurosciences* - Gilles VANDEWALLE | B2 | Q1 | 26 | 26 | - | **5** |

## Bridging courses (max 15-60 credits) Master in biology of organisms and ecology (120 credits)

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.).

**Compulsory courses (B0 : 40Cr)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BIOL0518-4 | *Biodiversity and ecology*<br>- *Notions and concepts* - Gabriel CASTILLO CABELLO, Bruno FREDERICH, Eric PARMENTIER<br>- *Stage d'écologie marine* - Eric PARMENTIER - [5d FW] | B0 | TA<br>60<br>- | <br>-<br>- | <br>-<br>[+] | | **7** |
| BIOL0868-1 | *Biology of multicellular animal organisms* - Loïc MICHEL | B0 | Q1 | 15 | 15 | - | **3** |
| BIOL0869-1 | *Biology of multicellular plant organisms* - Claire PÉRILLEUX | B0 | Q1 | 15 | 15 | - | **3** |
| BIOL0216-1 | *Animal physiology* - JeanChristophe PLUMIER, Marc THIRY | B0 | Q1 | 60 | 30 | - | **7** |
| BIOL0217-2 | *Vegetal physiology, Theory* - Claire PÉRILLEUX - Suppl : Frédéric BOUCHÉ | B0 | Q2 | 35 | - | - | **3** |
| BIOL2037-1 | *Introduction to evolutionary biology* - Nicolas MAGAIN - [1d FW] | B0 | Q2 | 25 | 25 | [+] | **4** |
| BIOL2038-1 | *Soil ecology and microbiology* - Monique CARNOL - [1d FW] | B0 | Q1 | 25 | 10 | [+] | **3** |
| BIOL2039-2 | *Freshwater ecology, Theory* - Anne GOFFART, Véronique GOOSSE, Célia JOAQUIMJUSTO | B0 | Q2 | 18 | 2 | - | **2** |
| BIOC9244-1 | *Genetics and introduction to molecular ecology* - Marc HANIKENNE | B0 | Q1 | 20 | 10 | - | **2** |
| STAT0750-1 | *Multivariate statistical analysis (software R)* - Arnout VAN MESSEM | B0 | Q2 | 10 | 10 | - | **3** |
| DOCU0460-1 | *Training in the use of documentary resources in biology(refresher course)* - Hassan BOUGRINE, Monique CARNOL | B0 | Q1 | 6 | 6 | - | **1** |
| STAT0077-1 | *Computing analysis and processing of biological data* - Patrick MEYER | B0 | Q1 | 25 | - | - | **2** |

**Optional courses (B0 : 20Cr)**

In agreement with the Jury, if necessary choose courses from: (B0 : 20Cr)

[...] Courses from the Bachelor in Biology.