

The Master program has a normal duration of 3 semesters and comprises 90 ECTS :

Module 1 : 15 ECTS : Compulsory (9 ECTS) and optional courses (6 ECTS)

Module 2 : 15 ECTS : First step project

Module 3 : 15 ECTS : Optional courses

Module 4 : 45 ECTS : Personal research project (Master thesis)

Training objectives are available in its programme regulations.

Autumn Semester (semester 1)

	Courses / Enseignements	Hours per semester			Teaching Staff	ECTS Credits	Limited nb of students
		C	E/S	PW			
MODULE 1	Compulsory / Obligatoires						
	Data Analysis <i>Analyses de données</i>	6	-	6	Bergmann S.,	2	
	Introduction into Scientific Writing <i>Introduction à la rédaction scientifique</i>	7	9	-	Waterhouse R.	2	
	Molecular Methods in Ecology and Evolution <i>Méthodes moléculaires en écologie et évolution</i>	18	-	42	Sanders I., Fumagalli L. Salamin N.	5	
	Master BEC Retreat <i>Retraite Master BEC</i>	-	-	-	Kawecki T.	-	
	Seminars of the Dept. of Ecology and Evolution <i>Séminaires du Dept Ecologie et Evolution</i>	-	14	-	Kawecki T.	-	
	Subtotal	31	23	48		9	
	Optional (at least 6 credits) Optionnel (minimum 6 crédits)						
	Advanced Data Analysis <i>Analyses de données : niveau avancé</i>	6	-	6	Ciriello G., Delaneau O.	2,5	
	Animal Communication and Parasitism <i>Communication animale et parasitisme</i>	14	-	-	Christe P., Roulin A.	1,5	
Major Transitions in Evolution <i>Les grandes étapes de l'évolution</i>	14	-	-	Keller L.	1,5	12	
Phylogeography <i>Phylogéographie</i>	7	10	-	Fumagalli L.	1,5		
Population Genetics and Dynamics <i>Génétique et dynamique des populations</i>	7	10	-	Goudet J.	1,5		
Spatial Analysis and GIS in Ecology <i>Analyses spatiales et SIG en écologie</i>	7	10	-	Guisan A.	1,5		
Animal Experimentation and Wild Animals * <i>Expérimentation animale et animaux sauvages</i>	20	-	20	Rubin J.-F.	-		
Introduction to R (optional support) <i>Introduction à R (mise à niveau optionnelle)</i>				Schütz F.	-		
Total					15		
MODULE 2	Practical Project / Travail pratique						
	First Step Project <i>Travail d'initiation à la recherche</i>	-	-	224	Kawecki T.	15	

* Only students who choose a master project with animal experimentation are allowed to select this course

Abbreviations

C = Course

E/S = Exercise/Seminar

PW = Practical Work

Spring Semester (semester 2)

MODULE 3	Courses / Enseignements	Hours per semester			Teaching Staff	ECTS Credits	Limited nb of students
		C	E/S	PW			
		Optional (choice -> 15 credits) *					
Optionnel (choix -> 15 crédits)							
	Applied Ecology <i>Ecologie appliquée</i>	14	-	28	Pellet J.	3	
	Biological Invasions <i>Invasions biologiques</i>	14	-	-	Bertelsmeier C.	1,5	
	Co-evolution, Mutualism, Parasitism <i>Co-évolution, mutualisme, parasitisme</i>	14	-	-	Sanders I.	1,5	
	Comparative Genomics : from Thousands of Genomes to Single Cells <i>Génomique comparative : des milliers de génomes aux cellules individuelles</i>	7	7	-	Arguello R.	1,5	
	Current Problems in Conservation Biology <i>Problèmes actuels en biologie de la conservation</i>	14	14	-	Wedekind C.	3	10
	Ecology of the Fishes of Switzerland <i>Ecologie des poissons de Suisse</i>	7	-	10	Rubin J.-F.	1,5	
	Honeybee Ecology, Evolution and Conservation <i>Ecologie des abeilles, évolution et conservation</i>	14	-	-	Dietemann V.	1,5	
	Integrated course Mountain Ecosystems - Ecology & Evolution <i>Cours intégré écosystèmes de montagne - écologie et évolution</i>	14	-	-	Guisan A.	1,5	
	Integrated course Mountain Ecosystems - Geo-Environmental Sciences <i>Cours intégré écosystèmes de montagne - sciences géo-environnementales</i>	14	-	-	Guisan A.	1,5	
	Introduction to Primate Behaviour, Cognition and Culture <i>Introduction au comportement, à la cognition et à la culture des primates</i>	10	8	-	Van de Waal E.	1,5	
	Microbiome Analysis (MSc MLS) <i>Analyse du microbiome</i>	8	16	-	van der Meer J.	1,5	
	Phylogeny and Comparative Methods <i>Phylogénie et méthodes comparatives</i>	14	14	-	Salamin N.	3	
	Plant Population Genetics and Conservation <i>Génétique des populations végétales et biologie de la conservation</i>	7	-	10	Felber F.	1,5	
	Sex, Ageing and Foraging Theory <i>Théories et modèles de l'évolution de la reproduction sexuée, la sénescence et la consommation de ressources</i>	9	-	9	Mullon C.	1,5	
	Spatial Modelling of Species and Biodiversity <i>Modélisation spatiale des espèces et de la biodiversité</i>	14	14	-	Guisan A.	3	
	Scientific Communication - Scientific Hands-on Workshop Module (in French only) <i>Médiation scientifique - module atelier scientifique</i>	14	14	-	Kaufmann A., Reymond P., Ducoulombier D., Trouilloud S., Ythier M.	3	8
	Scientific Mediation and Communication - Museum Module <i>Communication et médiation scientifique - module musée</i>	6	-	22	Sartori M., Glaizot O.	3	6
	The Evolution of Cooperation : from Genes to Learning and Culture <i>L'évolution de la coopération : des gènes à l'apprentissage et la culture</i>	28	-	-	Lehmann L.	3	
	Social Genetics <i>Génétique sociale</i>	2	12	-	Keller L., Kay T.	1,5	
Optional Field Courses (Financial participation by the student required)							
Etudes de terrain optionnelles							
	Drivers of Invertebrate Biodiversity along Ecological Gradients <i>Facteurs déterminant la biodiversité des invertébrés le long de gradients écologiques</i>	7	-	49	Schwander T.	3	20
	Evolution and Biogeography of Semi-arid and Island Floras <i>Evolution et biogéographie des flores insulaires en zone semi-aride</i>	-	-	40	Pannell J.	2	14
	Integrated Practical Work Mountain Ecosystems in the Alps ** <i>Travaux pratiques intégrés écosystèmes de montagne dans les Alpes</i>	-	-	52	Guisan A.	3	
Total						15	

* Students can choose optional courses independently from this study plan for a max. of 3 ECTS credits in agreement with the head of this Master

** To follow Integrated Practical Work Mountain Ecosystems in the Alps : do the two courses Integrated course Mountain Ecosystems

Spring semester (semester 2) and Autumn Semester (semester 3)

MODULE 4			ECTS Credits
	Master Thesis <i>Travail de Master</i>	Thesis Director	

Due to the sanitary evolution related to COVID-19, the study plans may be adapted during the semester as follows:

- possibility to switch from one mode of teaching to another (face-to-face <-> distance, synchronous <-> asynchronous, switch to co-modal teaching where it was not initially planned).
- adaptation of evaluation modalities, without inducing derogations from the Study Regulations (oral <-> written, exam <-> validation, individual work <-> group work, practical work <-> theoretical work, face-to-face evaluation <-> online evaluation, etc.).
- alternative or time-shifted modalities for teachings, internships, practical work, fieldworks and camps that could not take place or teachings that could no longer take place in the form initially planned.

Students are invited to consult this document regularly (Study Plan & Evaluation Procedure)