

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

Module 1 : 15 ECTS : Compulsory courses (10 ECTS) and Optional courses (5 ECTS)

Module 2 : 15 ECTS : First Step Project

Module 3 : 30 ECTS : Compulsory courses (12 ECTS) and Optional courses (18 ECTS)

Module 4 : 30 ECTS : Personal Research Project (Master Thesis)

For specialisation Behaviour, Economics and Evolution (BEE) (30 ECTS), the student must obtain :

18 ECTS : with Compulsory interdisciplinary courses in module 1 and 3 (marked in blue)

12 ECTS : with Optional courses in module 3 at least 3 ECTS with Disciplinary optional courses (marked in green) and
at least 6 ECTS with Interdisciplinary optional courses (marked in blue)

Modules 2 and 4 : have to be in behaviour, economics and evolution fields, validated by the head of BEE specialisation

Training objectives are available in its programme regulations.

Specific training objectives: At the end of the course the students will be able to:

- Interact with biologists and economists alike and thus foster and stimulate interactions between these two fields of study.
- Respond to a biological question of behaviour and / or conservation and resource management by mobilising relevant economic science concepts.

Autumn Semester (semester 1)

	Courses / Enseignements	Hours per semester			Teaching Staff	ECTS Credits	Limited nb of students
		C	E/S	PW			
MODULE 1	Compulsory Courses / Enseignements 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	
	Master BEC Retreat <i>Retraite Master BEC</i>	-	-	-	Kawecki T.	-	
	Microeconomics and Game Theory (HEC) <i>Microéconomie et jeux théoriques</i>	56	-	-	Thöni C., Gizatulina A.	6	
	Subtotal	69	9	6		10	
	Optional Courses / Enseignements optionnels						
	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	
	Introduction to Primate Behaviour, Cognition and Culture <i>Introduction au comportement, à la cognition et à la culture des primates</i>	8	6	-	van de Waal E.	1.5	
	Molecular Methods in Ecology and Evolution <i>Méthodes moléculaires en écologie et évolution</i>	18	-	42	Sanders I., Fumagalli L. Salamin N.	5	
	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., Lehmann L.	15	

Interdisciplinary courses marked in blue

* 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			
Compulsory Courses / Enseignements obligatoires							
	Behaviour, Economics and Evolution Lecture Series (HEC) <i>Séminaires BEE</i>	10	10	50	Lehmann L., Santos-Pinto L.	6	
	Environmental Economics (HEC) <i>Economie environnementale</i>	28	-	-	Houde S.	6	
	Subtotal	56	10	50		12	
Disciplinary Optional Courses / Enseignements optionnels disciplinaires *							
	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	
	Phylogeny and Comparative Methods <i>Phylogénie et méthodes comparatives</i>	14	14	-	Salamin N.	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	Glaizot O.	3	6
	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	
	Social Genetics <i>Génétique sociale</i>	2	12	-	Keller L., Kay T.	1.5	
	Spatial Modelling of Species and Biodiversity <i>Modélisation spatiale des espèces et de la biodiversité</i>	14	14	-	Guisan A.	3	
	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	
Optional Field Courses (Financial participation by the student required) <i>Etudes de terrain optionnelles</i>							
	Biological Conservation of the Mediterranean Region <i>Biologie de la conservation dans les régions méditerranéennes</i>	-	-	40	Roulin A., Christe P., Fumagalli L.	2	
	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	
Interdisciplinary courses marked in blue							
Disciplinary courses marked in green							

* - Before choosing an optional course, please check the "programme requirement" (prerequisites for the course) in the course description
- To complete the acquisition of the credits, it is possible to take optional courses from the module 1 during the third semester depending on their availability and only with the approval of the head of the Master

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

MODULE 3	Courses / Enseignements	Hours per semester			Teaching Staff	ECTS Credits	Limited nb of students
		C	E/S	PW			
		Interdisciplinary Optional Courses / Enseignements optionnels interdisciplinaires *					
	Heuristic Decision Making Strategies <i>Stratégie heuristique de prise de décision</i>	56	-	-	Neth H.	6	
	Neuro Economie (HEC - in french) <i>Neuro économie</i>	56	-	-	Villa A.	6	
	Organizational Behavior (HEC - in french) <i>Comportement organisationnel</i>	28	-	-	Bastardoz N., Kleinbauer T., Dietz J.	3	
	Political and Institutional Economics (HEC) <i>Economie politique et institutionnelle</i>	56	-	-	Rohner D.	6	
	Behavioral Economics (HEC - autumn) <i>Comportement économique</i>	56	-	-	Santos-Pinto L.-P.	6	
	Development Economics (HEC - autumn) <i>Economie de développement</i>	56	-	-	Esposito E.	6	
	General Approach to Management (HEC - in french - autumn) <i>Approche générale du management</i>	28	-	-	Castaner X., Conti A., Bienz P.	3	
	Human Behavior and Evolutionary Inference (HEC - autumn) <i>Comportements humains et évolution</i>	56	-	-	Efferson C.	6	
	Leadership Development (HEC - autumn) <i>Le développement du leadership</i>	28	-	-	Bendahan S.	3	
	Managerial Decision Making (HEC - autumn) <i>Prise de décision managériale</i>	56	-	-	Armaos K.	6	
	Organizational Theory and Decision Making (HEC - autumn) <i>Théorie et prise de décision organisationnelle</i>	56	-	-	Zehnder C.	6	
Total						30	

Interdisciplinary courses marked in blue

* - Students can choose other HEC optional courses independently from this study plan with the approval of the head of BEE specialisation
- To complete the acquisition of the credits, it is possible to take optional courses from the module 1 during the third semester depending on their availability and only with the approval of the head of the Master

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

MODULE 4	Course / Enseignement		ECTS Credits

The pandemic has shown us that circumstances beyond our control may require us to make the following adjustments / adaptations to study plans during the semester:

- 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).
- change / modification 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)