

The Master program has a normal duration of 4 semesters and comprises 120 ECTS :

Module 1 : 15 ECTS : Compulsory Courses

Module 2 : 15 ECTS : Practical Project

Module 3 : 40 ECTS : Compulsory Courses (15 ECTS) and Optional Courses (25 ECTS)

Module 4 : 50 ECTS : Personal Research Project

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

- Obtain **30 ECTS** in the specialisation :

- Module 1 : 6 ECTS with Interdisciplinary Compulsory Course (marked in blue)
- Module 3 : 15 ECTS with Interdisciplinary Compulsory Courses (marked in blue) and 9 ECTS with Optional Courses in module 3 at least 3 ECTS with Disciplinary Optional Courses (marked in pink) and at least 6 ECTS with Interdisciplinary Optional Courses (marked in blue)

- Carry out the First Step Research Project (Module 2) and the Master Research Project (Module 4) in the field of Behaviour, Economics and Evolution, 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.

	Compulsory Courses / Enseignements obligatoires	Hours per semester				Teaching Staff	ECTS	Limited nb of students
		C	E	S	PW			
MODULE 1	Semester 1 (Autumn) / Semestre 1 (automne)							
	Concepts in Ecology <i>Concepts en écologie</i>	6	-	-	-	Bertelsmeier C.	2	
	Concepts in Evolution <i>Concepts en évolution</i>	6	-	-	-	Schwander T.	2	
	Data Analysis (MSc MLS) <i>Analyses de données (MSc MLS)</i>	8	8	-	-	Bergmann S.	3	
	Introduction to Scientific Writing <i>Introduction à la rédaction scientifique</i>	5	11	-	-	Roulin A.	2	
	Microeconomics and Game Theory (HEC) <i>Microéconomie et jeux théoriques</i>	56	-	-	-	Thöni C.	6	
	Master BEC Retreat <i>Retraite Master BEC</i>	-	-	-	-	Kawecki T.	-	
	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	81	19	0	0		15		

	Practical Project / Travail pratique	Hours per semester				Teaching Staff	ECTS	Limited nb of students
		C	E	S	PW			
MODULE 2	Semester 1 (Autumn) / Semestre 1 (automne)							
	First Step Research Project <i>Travail d'initiation à la recherche</i>	-	-	-	224	Kawecki T., Lehmann L.	15	
	Total						15	

Interdisciplinary courses marked in blue

* Only students assigned a master project involving animal experimentation may and must take this course

Abbreviations

C = Course
 E = Exercise
 S = Seminar
 PW = Practical Work

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)

	Courses / Enseignements	Hours per semester				Teaching Staff	ECTS	Limited nb of students
		C	E	S	PW			
	Compulsory Courses / Enseignements obligatoires							
	Semester 2 (Spring) / Semestre 2 (printemps)							
	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>	56	-	-	-	Houde S.	6	
	The Evolution of Cooperation and Decision-Making <i>L'évolution de la coopération et de la prise de décision</i>	22	-	-	-	Lehmann L.	3	
	Subtotal / Sous-total	88	0	10	50		15	
	Disciplinary Optional Courses / Enseignements optionnels disciplinaires *							
	Semester 2 or 4 (Spring) / Semestre 2 ou 4 (printemps)							
	Applied Ecology <i>Ecologie appliquée</i>	14	-	-	36	Pellet J.	4	
	Co-evolution, Mutualism, Parasitism <i>Co-évolution, mutualisme, parasitisme</i>	14	-	-	-	Sanders I.	2	
	Current Problems in Conservation Biology <i>Problèmes actuels en biologie de la conservation</i>	14	14	-	-	Wedekind C.	4	10
	Ecology of the Fishes of Switzerland <i>Ecologie des poissons de Suisse</i>	7	-	-	10	Rubin J.-F.	2	
	Honeybee Ecology, Evolution and Conservation <i>Ecologie des abeilles, évolution et conservation</i>	14	-	-	-	Dietemann V.	2	
	Integrated course Mountain Ecosystems <i>Cours intégré écosystèmes de montagne</i>	28	-	-	-	Guisan A.	3	
	Interfaculty Seminar on the Environment (most in French, GSE) <i>Séminaire interfacultaire en environnement</i>	-	-	14	-	Guisan A.	2	
	Phylogeny and Comparative Methods <i>Phylogénie et méthodes comparatives</i>	14	14	-	-	Salamin N.	4	
	Scientific Communication - Scientific Hands-on Workshop Module (in French only) <i>Médiation scientifique - module atelier scientifique</i>	14	14	-	-	Genovese J., Ciuffi A., Ducoulombier D., Trouilloud S., Ythier M.	4	8
	Spatial Modelling of Species and Biodiversity <i>Modélisation spatiale des espèces et de la biodiversité</i>	14	14	-	-	Guisan A.	4	
	Introduction to High Performance Computing Cluster ** <i>Introduction au calcul de haute performance</i>	8	-	-	-	E. Jeanvoine	-	
	Semester 3 (Autumn) / Semestre 3 (automne)							
	Advanced Data Analysis (MSc MLS) <i>Analyses de données : niveau avancé (MSc MLS)</i>	8	8	-	-	Ciriello G.	3	
	Animal Communication and Parasitism <i>Communication animale et parasitisme</i>	14	-	-	-	Christe P., Roulin A.	2	
	Anthropogenic Effects on Wild Animals : Mechanisms and Fitness Consequences <i>Effets anthropogènes sur les animaux sauvages : Mécanismes et conséquences sur la fitness</i>	14	-	-	-	Bize P.	2	
	Biological Invasions <i>Invasions biologiques</i>	14	-	-	-	Bertelsmeier C.	2	
	Molecular Methods in Ecology and Evolution <i>Méthodes moléculaires en écologie et évolution</i>	18	-	-	42	Sanders I., Fumagalli L., Salamin N.	6	
	Phylogeography <i>Phylogéographie</i>	7	10	-	-	Fumagalli L.	2	
	Population Genetics and Dynamics <i>Génétique et dynamique des populations</i>	9	20	-	-	Goudet J.	4	
	Spatial Analysis and GIS in Ecology <i>Analyses spatiales et SIG en écologie</i>	7	10	-	-	Guisan A.	2	
	Semesters 2 to 4 (Spring / Autumn) / Semestres 2 à 4 (printemps / automne)							
	Seminars of the Department of Ecology and Evolution <i>Séminaires du Département Ecologie et Evolution</i>	-	-	10	-	Kawecki T.	2	

Interdisciplinary courses marked in blue
Disciplinary courses marked in pink

* Students can choose optional courses not included in this study plan for a max. of 4 ECTS. They can also obtain a maximum of 6 ECTS for a professional internship outside of Unil. Both are subject to prior approval of the head of the Master and will require a sufficient proof of completion

** Students assigned a master project involving High Performance Computing Cluster must take this course

	Courses / Enseignements	Hours per semester				Teaching Staff	ECTS	Limited nb of students
		C	E	S	PW			
MODULE 3	Disciplinary Optional Courses / Enseignements optionnels disciplinaires *							
	Optional Field Courses / Etudes de terrain optionnelles (Financial contribution by the student required)							
	Drivers of Invertebrate Biodiversity along Altitudinal Gradients (Field courses in the Alps) <i>Facteurs déterminant la biodiversité des invertébrés le long de gradients altitudinaux (stage de terrain dans les Alpes)</i>	6	-	-	42	Schwander T.	4	20
	Ecology and Evolution of the Mediterranean Flora <i>Ecologie et évolution de la flore méditerranéenne</i>	-	-	-	48	Pannell J.	4	14
	Integrated Practical Work Mountain Ecosystems in the Alps ** <i>Travaux pratiques intégrés écosystèmes de montagne dans les Alpes</i>	-	-	-	52	Guisan A.	4	
	Interdisciplinary Optional Courses / Enseignements optionnels interdisciplinaires ***							
	Semester 2 or 4 (Spring) / Semestre 2 ou 4 (printemps)							
	Neuro Economie (HEC - in french) <i>Neuro économie</i>	56	-	-	-	Villa A.	6	
	Political and Institutional Economics (HEC) <i>Economie politique et institutionnelle</i>	56	-	-	-	Rohner D.	6	
	Semester 3 (Autumn) / Semestre 3 (automne)							
Behavioral Economics (HEC) <i>Comportement économique</i>	56	-	-	-	Santos-Pinto L.-P.	6		
Development Economics (HEC) <i>Economie de développement</i>	56	-	-	-	Nigmatulina D.	6		
Heuristic Decision Making Strategies (HEC) <i>Stratégie heuristique de prise de décision</i>	56	-	-	-	Marewski J.	6		
Human Behavior and Evolutionary Inference (HEC) <i>Comportements humains et évolution</i>	56	-	-	-	Efferson C.	6		
Leadership Development (HEC) <i>Le développement du leadership</i>	28	-	-	-	Bendahan S.	3		
Managerial Decision Making (HEC) <i>Prise de décision managériale</i>	56	-	-	-	Hoffrage U.	6		
Organizational Theory and Decision Making (HEC) <i>Théorie et prise de décision organisationnelle</i>	56	-	-	-	Zehnder C.	6		
Total							40	

Interdisciplinary courses marked in blue

Disciplinary courses marked in pink

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** Taking Integrated Course Mountain Ecosystems is a prerequisite to follow Integrated Practical Work Mountain Ecosystems in the Alps

*** - Before choosing an interdisciplinary optional course (marked in blue), please check the "programme requirement" (prerequisites for the course) in the course description

- Students can choose other HEC optional courses independently from this study plan with the approval of the head of BEE specialisation

	Personal Research Project / Projet de recherche personnel	Hours per semester				Teaching Staff	ECTS
		C	E	S	PW		
MODULE 4	Semesters 2 to 4 (Spring / Autumn) / Semestres 2 à 4 (printemps / automne)						
	Write a Review <i>Rédaction d'une revue</i>	4	2	-	-	Kawecki T., Director of the Master Research Project	5
	Master Research Project BEE <i>Travail de Master BEE</i>					Director of the Master Research Project	45
Total							50