



2.00 credits

30.0 h

Q1

Teacher(s)	Duchatelet Laurent ;
Language :	English
Place of the course	Louvain-la-Neuve
Prerequisites	To follow this course, it is necessary to master the knowledge and skills developed in the courses LBIO1117 (Ecology I) et LBIO1223 (Molecular biology)
Main themes	In this advanced ecology course we cover aspects of individual and population ecology that are important in adaptation and evolution, such as ecophysiology, phenotypic plasticity, dispersal and life history variation.
Learning outcomes	
Evaluation methods	Combined oral and written examination with three open questions on the material covered in the course, and one question on the interpretation of experimental results taken from the literature in the field. Preparation time 30 minutes, then 15 minutes interview with the teacher on the open questions. Interpretation of experimental results will be marked on the preparation paper. Each question will be marked out of 5.
Teaching methods	Theoretical course with lectures.
Content	In this advanced ecology course, we treat aspects of individual and population ecology that are important for adaptation: fitness and trade-offs between phenotypic traits, notably life-history traits, the importance of physiology, morphology, behaviour, key factors for fitness such as reproduction, and the role of phenotypic plasticity in adaptation. Being at the crossroads between different fields of Ecology and the underlying processes and mechanisms, this advanced course highlights the multidisciplinary required to apprehend the life of an organism and/or population within its environment from a functional point of view. We will discuss experimental studies to illustrate the collection and analysis of data in functional ecology.
Inline resources	The contents of the course and announcements are available on Moodle: LBIO1317 on Moodle
Bibliography	Livre de référence "Ecologie, l'économie de la nature» par Ricklefs et Relyea (2019), disponible à la bibliothèque des Sciences et en ligne pour les étudiants inscrits à UCLouvain.
Other infos	The course will be taught in English, but questions can be asked in French. The course will be presented in three parts: ex-cathedra courses to understand the basics, "seminar" courses for discussion around scientific articles, and courses on the implementation of experimental protocols dedicated to functional ecology.
Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in Scientific Culture	MINCULTS	2		
Bachelor in Biology	BIOL1BA	2		
Bachelor in Biology, Anthropology and Archaeology	BABA1BA	2		