UCLouvain

lbio1217

2020

Ecology II

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

3 credits	30.0 h + 10.0 h	Q2

Teacher(s)	Hance Thierry ;Nieberding Caroline ;Van Dyck Hans ;Wesselingh Renate (coordinator) ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	*The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Main themes	In this course the basics of ecology that were presented in the first course, LBIO1117 Ecologie I, are treated in more detail, including elements of population dynamics and community ecology.
Aims	1 To give an outline of spatial-temporal mechanisms of adaptation of living beings, of the way populations and their regulation systems function. In particular, analysis of population-environment systems are seen and emphasis on correlations between natural history of individuals and population strategies with different changes in their environment. We also want the students to understand the aim and conceptual scene of behaviour ecology (relations between natural selection, ecology and behaviour) and to be able to use these concepts by testing the hypothesis in a decisional way. - - - - *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Written exam with open questions. Skills: Acquire a synthetic spatio-temporal view of the adaptive mechanisms of living beings to their environment, and the consequences of individual adaptation on the functioning and regulation of their populations. In particular, it involves analyzing all the components of the "population-environment" system and highlighting the correlations between the natural history traits of individuals and the strategies of populations with the various changes in their living environment. .
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Classroom ex-cathedra course, reading of articles and practical work in the field with a synthesis presentation
Content	This course will be given by Thierry Hance The topics covered are 1) demecology and population dynamics based on data drawn from observation and experience of the living world; 2) Prey-predator relationships and competition 3) Analysis of food-web and living communities 3) An introduction to sociality
Bibliography	• #Robert Rickleffs and Gary L. Miller 2005. Ecologie. De Boeck, Bruxelles, 821 pp • #Thomas M. Smith & Robert Leo Smith 2009. Elements of Ecology. Benjamin Cummings (Pearson Intl). San Francisco, 650 pp • #Robert Barbault, 2008. Ecologie Générale. Dunod, Paris, 390 pp • #James R. Carey 1993. Applied demography for biologist. Oxford university press. 206 pp • #Michael Begon, John L. Harper and Colin R. Towsend, 1986. Ecology: individuals, populations and communities. Blackwell, Oxford, 876 pp • + articles scientifiques
Other infos	La plateforme moodle est l'endroit où vous trouverez, après inscription nécessaire, toutes les informations concernant le cours. Inscrivez-vous à cette plateforme : https://moodleucl.uclouvain.be/course/LBIO1351.

Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Biology	BIOL1BA	3	LBIO1117	
Minor in Scientific Culture	MINCULTS	3		
Master [120] in Geography : General	GEOG2M	3		
Interdisciplinary Advanced Master in Science and Management of the Environment and Sustainable Development	ENVI2MC	3		
Master [120] in Environmental Science and Management	ENVI2M	3		