LBOE2111

2012-2013

Evolution

5.0 credits	60.0 h	1q

Teacher(s) :	Nieberding Caroline ; Van Dyck Marie-Claire ; Hance Thierry ; Rezsohazy René ; Wesselingh Renate ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	The course consists of two major parts, dealing with macroevolution and microevolution, respectively. The first part will deal with the appearance of life, the evolution of reproductive systems, autotrophy/heterotrophy, organel formation, endosymbiosis, the main innovations in plant and animal evolution and the origin of man and cultural evolution. The major scientific theories (catastrophism, darwinism, neodarwinism, synthetic theory, neutralism, selfish gene, punctuated equilibrium, complexity and chaos) wil be explained and discussed. The second part deals with selection, adaptation and evolution on shorter time scales, and will discuss various subjects, such as genetic vatiation, heritability, natural and sexual selection, kin selection, evolution of sociality, game theory, life history theory, mating systems, aging and senescence.
Aims :	Evolution is a constantly changing field due to the variety of sometimes contradictory theories. Students will acquire the basic knowledge needed to understand the main theories. They should be able to discuss these theories, to formulate hypotheses, discuss them and to make a synthesis. During a public seminar they will present and discuss an aspect of evolution from different points of view. Articles on microevolution will be discussed in class, and students will learn how to critically read an article. *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".*
Other infos :	Evaluation Paper and presentation on chosen subject, summary and discussion of article
Cycle and year of study :	> Master [120] in Biology of Organisms and Ecology > Master [60] in Biology
Faculty or entity in charge:	BIOL