## LBOE2112 Analyse des données et modélisation des systèmes biologiques 2010-2011

1q

5.0 credits

UCL

Université catholique

de Louvain

24.0 h + 36.0 h

Teacher(s) :	SOMEBODY ; Le Boulengé Éric ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Taking into account the most frequent needs among researchers in the biology of organisms and the environment, as well as the constraints on the volume of the course, the lectures cover two main fields : Linear models for statistical inference, and methods for the analysis of multivariate data. The examples treated in the course are mainly taken in the fields of ecological research.
Aims :	The objective is that as a result of following successfully this course, the students : " Are aware of the necessity of establishing beforehand the design of any scientific experiment. " Have applied the basic principles of experimental design to a research question of their own. " Are able to search for, choose, and apply knowingly well adapted methods to model and analyse biological data relevant to their domain of interest. " Are able to set up a scientific experiment, to manage the data produced, to analyse them, and to interprete critically the results. " Have proved their capacity to produce a written report of a scientific experiment and to present its results orally. <i>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".</i>
Other infos :	Prerequisites The course builds on knowledge acquired by the students in their former education : probability theory, general principles of statistical inference, classical methods for the analysis of continuous data (analysis of variance, linear regression) and of categorical data (contingency tables, goodness of fit of probability distributions), usage of a computer software for the management and statistical analysis of data. Evaluation The evaluation process aims at measuring how well the student acquired the capabilities listed in the objectives. More details are given in the Description of the course, adapted for the contemporary academic year.
Cycle and year of study :	Master [60] in Biology Master [120] in Biology of Organisms and Ecology
Faculty or entity in charge:	BIOL