UCLouvain

lvete1262

2020

Biostatistics and information's critical analysis

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).

7 credits	45.0 h + 40.0 h	Q1

Teacher(s)	Legrand Catherine ;
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	- Introduction to probability ; discrete (binomiale, multinomial and Poisson) and continuous (normal, chi-square, Student and Fisher-Snedecor) distributions. - Descriptive statistics (measures of location and dispersion, empirical distribution, histograms, graphs, dependence measures and their graphical representations) - Introduction to statistical inference: point estimation, confidence intervals, hypothesis tests ; application to the comparison of means and variances. - ANOVA I and ANOVA II models. - Linear models : linear and multiple regression. - Simple, partial and multiple correlations. - Inference methods for discrete data and contigency tables. - Introduction to the planning of experiments.
Aims	1 The goal of that course is to introduce students in veterinary science to the rational use of statistical methods for the analysis of data in their discipline. - - - - *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.** The evaluation includes a theoretical part and a practical part (student can have a recap form). Furthermore, a continuous evaluation will be organised via short tests during the practicals sessions as via a project linked to the MOOC
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Formal lectures and exercices sessions. An introduction to a data analysis software will be proposed during the practicals. A MOOC and exercices sessions about this MOOC will also be part of this course. In 2020-2021, the course will be organised in a "comodal" way, so both in presential and with a live broadcast via Teams. However, for the students for whom it is not problematic (no quarantine, no symptoms, ...) the presence in the auditorium is advised. In case the number of places would not be sufficient, the professor will organise a registration system.
Inline resources	All required ressources for the courses and the practicals willbe made available online via the Moodle page of the course. The students will be granted an access to the MOOC "Penser Critique".
Other infos	Prerequisites: Basic courses in mathematics (PHY1114 - PHY1115 or equivalent).
Faculty or entity in charge	VETE

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Veterinary Medicine	VETE1BA	7	LMAT1101	
Certificat d'université : Statistique et sciences des données (15/30 crédits)	STAT2FC	7		