UCLouvain

lvete1262	Biostatistics and information's critical analysis
2022	

7.00 credits	45.0 h + 40.0 h	Q1

Teacher(s)	De Backer Mickaël (compensates Legrand Catherine) ;Legrand Catherine ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	Recommended knowledge of the basic notions of mathematics to understand the statistics course
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.
Learning outcomes	**At the end of this learning unit, the student is able to :**
	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.
Evaluation methods	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	Formal lectures and exercices sessions on-site. An introduction to a data analysis software will be proposed during the practicals (SAS JMP). A MOOC and exercices sessions about this MOOC will also be part of this course.
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	Learning outcomes
Bachelor in Veterinary Medicine	VETE1BA	7		🔍
Certificat d'université : Statistique et science des données (15/30 crédits)	STAT2FC	7		🔍