Faculty of Sciences

VETE1262 Biostatistics

[45h+45h exercises] 7 credits

This course is taught in the 1st semester

Teacher(s): Philippe Lambert
Language: French
Level: First cycle

Aims

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.

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.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisites: Basic courses in mathematics (PHY1114 - PHY1115 or equivalent).
Evaluation : the evaluation includes a theoretical part and a practical part as well as project.
An introduction to a data analysis software will be proposed during the practicals.

Other credits in programs

BIOL12BA	Deuxième année de bachelier en sciences biologiques	(5 credits)	Mandatory
VETE12BA	Deuxième année de bachelier en médecine vétérinaire	(7 credits)	Mandatory