Statistics

UCLouvain

liepr1026 2023

3.00 credits 15.0 h + 15.0 h Q2	2
---------------------------------	---

Teacher(s)	Bugli Céline ;				
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	The course comprises theoretical lectures and exercise sessions: 1. Brief recall on one- and two-dimensional descriptive statistics 2. Inferential statistics: populations and samples, probabilities, variables, theoretical distributions, confidence intervals (means, variance, proportion), hypothesis testing based on sample means (Student t-test, analysis of variance, analysis of covariance, multiple comparisons), proportions (chi square, phi, contingency), correlations/regressions (significance, comparison, linearity), adjustment tests (chi square, KS), non-parametric tests (comparison of independant and dependant groups). 3. Application to capacity tests: classification of tests, quality of tests, validity and reproducibility.				
Learning outcomes	At the end of this learning unit, the student is able to: At the end of the course the successful student will be able to use the techniques of inferential statistics within the framework of his/her research. The course focuses on the most frequently used statistical methods. The underlying mathematical developments are limited to a strict minimum and replaced by intuitive reasoning and concrete examples, especially via practical exercise sessions.				
Evaluation methods	The evaluation is carried out by means of a written exam consisting of a part A with MCQ questions (with 6 suggested answers and one expected correct answer) and a part B with open questions. The final grade is the weighted average of the A and B grades. In the final mark, part A is worth 10/20 and part B is worth 10/20.				
Teaching methods	Lectures and supervised exercises.				
Content	This course includes lectures and exercises. It contains a brief overview of the concepts of one- and two-				

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Master [120] in Motor Skills: General	MOTR2M	3		٩		
Master [120] in Motor Skills: Physical Education	EDPH2M	3		٩		
Bachelor in Physiotherapy and Rehabilitation	KINE1BA	3	LIEPR1003	٩		