UCL
Université catholique de Louvain

LIEPR1003
2013-2014

Treatment of data

4.0 credits	15.0 h + 15.0 h

Teacher(s) :	Dupont Jean-Philippe ; Gérard Philippe (coordinator) ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	The main subjects to meet these objectives will be: - Construction and interpretation of graphs - Descriptive analysis of data (concept of sample, indicators of average and dispersion, interpretation of level of service ...) - Search for library materials, database consultation and construction of a thematic bibliography. This introduction to the processing and analysis of scientific data will be made from specific materials to EDPH or KINE.
Aims :	After this educational entity, the student will have sufficient knowledge to correctly interpret scientific indicators used in the formation of BA. Specifically, it correctly interpret graphical representations of data and key indicators of descriptive statistics. It may also have access to sources of scientific information (consultations of databases, references ...) *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".*
Content :	Description: > Theoretical: o Different types of data, o Concepts of population and sample o absolute frequency tables, cumulative frequency of relative frequencies and cumulative relative frequencies, o Representation of data in tables and graphs, o Key indicators of central tendency, o Key indicators of dispersion, o Concept of probability, o normality distribution o Hypothesis homoscédasticité, o parametric tests and nonparametric tests, o Comparisons of 2 and several medium and 2 or more rows means (for dependent or independent samples) (concept of post-hoc) o Comparisons of proportions (and conditions of use of different tests), o Relations between continuous variables, calculation of correlation and interpretation of correlation coefficients, o Coefficient of determination o Relationship between variables. > Practical: o Discover the Excel software - Mathematical functions, logical, dates - hours, statistics and text, - Representation of data in tables or graphs. o Discovery of statistical software SPSS - Links between SPSS and Excel (import data) - Documentation files * sav, - Descriptive analysis (variables [frequency] and continuous variables [central tendency and dispersion]), - Graphical representations as SPSS, - Splitsing file - Selection of topics (select cases) - Verification of normal distribution of variables - Comparison of two independent samples ? Parametric Comparisons ? Comparisons nonparametric - Comparison of more than two independent samples ? Parametric Comparisons ? Comparisons nonparametric - Comparing two dependent samples ? Parametric Comparisons ? Comparisons nonparametric - Analysis of correlations (parametric and nonparametric) Methods: > lectures by audience > exercises supervision in computer classes or independently.

Other infos :	Interaction prerequisite courses with 1st Tray Evaluation Review written or oral and / or elements of continuous assessment Syllabus support and / or book (s) Encadrement Holder (s) and / or assistant (s), help (s) by any student (s) monitor (s) Other Content to articulate with the Master's course: "Statistical and Research Methodology motricity"
Cycle and year of study :	> Bachelor in Motor skills : General > Preparatory year for Master in Motor Skills: Physical Education > Bachelor in Physiotherapy and Rehabilitation > Preparatory year for Master in Physiotherapy and Rehabilitation and for Master in Motor Skills: General
Faculty or entity in charge:	FSM