lfopa2007

2019

UCLouvain

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

6 credits	30.0 h + 15.0 h	Q1

Teacher(s)	De Clercq Mikaël ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	The aim of this course is to provide basics skills and knowledge about quantitative data analysis both for descriptive and inferential statistics.
Aims	The learning outcomes G4, and to a lesser extent, G2 (G26 & G27) are pursued by this course. At the end of this course, the students should be able to: - Translate a concrete issue into a research question that fit quantitative data analysis (G41). - Identify the different existing variable types (G43). 1 - Select, apply and interpret descriptive statistics in a concrete research context (G43). - Understand the underlying reasoning of inferential statistics. - Select apply and interpret inferential statistics (essentially bivariate procedure) in a concrete research context (G44) - Critically evaluate research endorsing a quantitative design (G45). - - - - *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.** Individual written evaluation
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** The course is divided into 30hours of lecture course and 15hours of practical exercises. The practical exercises sessions aim at facilitating the development of interpretative and selection skills about descriptive and inferential statistical methods. Both lecture course and practical exercises allows students to get used to the use of statistical software.
Content	Descriptive statistics : - Nominal variables : mode - Ordinal variables : median, interquartile range - Continuous variables : mean, variance, standard deviation. Inferential statistics: knowledge - Population and sample - Inferential test procedure - Type I and II error, statistical power - Effect size Inferential statistics (statistical tests): - Chi-square & Cramer's V. - Spearman & Pearson's correlations. - Simple & multiple linear regression. - T-test & one-way Anova. Critical reading: - Understanding of the most used statistical terms and icons in empirical literature. - Diagram's, tables and indices' interpretation. - Critical distance with traditional manipulation of statistical information. - Awareness of the limitations of the statistical tools.

Bibliography	Bressoux, P. (2008). Modélisation statistique appliquée aux sciences sociales. Bruxelles: De Boeck Université. Dancey, C. et Reidy J. (2007). Statistiques sans maths pour psychologues. Bruxelles : De Boeck. Howell, D. (2008). Méthodes statistiques en sciences humaines. Bruxelles : De Boeck.
Faculty or entity in charge	EDEF

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Advanced Master in University and Higher Education Pedagogy (shift schedule)	EDUC2MC	6		🔍
Master [120] in Education (shift schedule)	FOPA2M	6		🔍