







5.00 credits

20.0 h + 20.0 h

Q1

Teacher(s)	Masquelier Bruno ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	<ul style="list-style-type: none"> • Three exercises associated with the practical work given during the first semester are evaluated and correspond to 30% of the final grade. • The final evaluation is based on a written exam given during the semester, which corresponds to 70% of the final grade. • In case of failure in the first semester, the evaluation in September is based on the written exam only (the points acquired through the continuous evaluation are lost).
Teaching methods	The course is structured around lectures and practical work (see programme on Moodle). Participation in courses and partical sessions is essential. It is necessary to read chapters from the curriculum beforehand.
Content	<p>LDEMO2047 provides a solid introduction to quantitative methods in the social sciences. At the end of this course, students will be able to</p> <ul style="list-style-type: none"> • to acquire mastery of the tools of bivariate and multivariate quantitative data analysis. • use single and multiple regression methods and some applications of generalized linear models • understand and be able to use factorial analysis and classification techniques • to be autonomous in the use of the R software. <p>Topics covered:</p> <ul style="list-style-type: none"> • <i>Univariate analysis</i> (reminders): to describe the data. • <i>Chi-square test, relative risks, odds ratios</i>: to analyze jointly two qualitative variables. • <i>T-Test, F-test and ANOVA</i>: to test the relationships between a qualitative and a quantitative variable. • <i>Correlations, linear regression</i>: to analyze jointly two quantitative variables • <i>Factorial analyses</i>: to construct indicators or identify 'latent' dimensions of all the variables analysed. • <i>Classification methods</i>: to identify clusters of units or to develop typologies. • <i>Multiple linear regression and the generalized linear model</i>: to predict the value of a dependent variable, and identify its determinants. • <i>Introduction to Bayesian statistics</i>.
Inline resources	Logiciel R: https://www.r-project.org/ Interface Rstudio: https://www.rstudio.com/
Bibliography	G. Masuy-Stroobant and R. Costa, editors. Analyser les données en sciences sociales : De la préparation des données à l'analyse multivariée. P.I.E. Peter Lang, 2013. D.C. Howell, V. Yzerbyt, Y. Bestgen, and M. Rogier. Méthodes statistiques en sciences humaines. Série Internationale. De Boeck Supérieur, 2008.
Faculty or entity in charge	PSAD

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Sociology	SOC2M	5		
Advanced Master in Quantitative Methods in the Social Sciences	LMQS2MC	5		
Master [120] in Population and Development Studies	SPED2M	5		
Master [120] in Political Sciences: General	SPOL2M	5		
Mineure en statistique et science des données	MINDATA	5		
Master [120] in Education (shift schedule)	FOPA2M	5		
Certificat d'université : Statistique et science des données (15/30 crédits)	STAT2FC	5		