







The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

4.00 credits	20.0 h + 20.0 h	Q1
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Teacher(s)	Bocquier Philippe ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	<ul style="list-style-type: none"> <li>• Three exercises associated with the practical work given during the first semester are evaluated and correspond to 30% (6/20) of the final grade.</li> <li>• The final evaluation is based on a written exam given during the semester, which corresponds to 70% (14/20) of the final grade.</li> <li>• In the event of failure in the 1st session, assessment is based on the exercises associated with the practical work (marked out of 6/20) and on the September examination (marked out of 14/20).</li> </ul> <p>PLEASE NOTE: The use of artificial intelligence is not prohibited, but must comply with the rules set out in the ESPO faculty note on the subject, which is available on its intranet site for students (<a href="http://uclouvain.be/consignes-chatgpt">http://uclouvain.be/consignes-chatgpt</a>)</p>
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"> <li>• to acquire mastery of the tools of bivariate and multivariate quantitative data analysis.</li> <li>• use single and multiple regression methods and some applications of generalized linear models</li> <li>• understand and be able to use factorial analysis and classification techniques</li> <li>• to be autonomous in the use of the R software.</li> </ul> <p>Topics covered:</p> <ul style="list-style-type: none"> <li>• <i>Univariate analysis</i> (reminders): to describe the data.</li> <li>• <i>Chi-square test, relative risks, odds ratios</i>: to analyze jointly two qualitative variables.</li> <li>• <i>T-Test, F-test and ANOVA</i>: to test the relationships between a qualitative and a quantitative variable.</li> <li>• <i>Correlations, linear regression</i>: to analyze jointly two quantitative variables</li> <li>• <i>Factorial analyses</i>: to construct indicators or identify 'latent' dimensions of all the variables analysed.</li> <li>• <i>Classification methods</i>: to identify clusters of units or to develop typologies.</li> <li>• <i>Multiple linear regression and the generalized linear model</i>: to predict the value of a dependent variable, and identify its determinants.</li> </ul>
Inline resources	Logiciel R: <a href="https://www.r-project.org/">https://www.r-project.org/</a> Interface Rstudio: <a href="https://www.rstudio.com/">https://www.rstudio.com/</a>
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	<a href="#">SOC2M</a>	5		
Advanced Master in Quantitative Methods in the Social Sciences	<a href="#">LMQS2MC</a>	5		
Master [120] in Population and Development Studies	<a href="#">SPED2M</a>	4		
Master [120] in Political Sciences: General	<a href="#">SPOL2M</a>	5		
Mineure en statistique et science des données	<a href="#">MINDATA</a>	5		
Master [120] in Education (shift schedule)	<a href="#">FOPA2M</a>	5		
Certificat d'université : Statistique et science des données (15/30 crédits)	<a href="#">STAT2FC</a>	4		