UCLouvain

## mmeth1301

## Quantifier le monde

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Teacher(s)	Schoumaker Bruno ;				
Language :	French				
Place of the course	Mons				
Learning outcomes					
Evaluation methods	January session  The assessment is based on the completion of a data analysis assignment (50% of the final grade) and a written exam (50% of the final grade), with possible data analysis. The work is carried out during the four-month period, and supervised by the teachers. Three compulsory intermediate works are to be carried out during the four-month period, and are valued in the final work (5 points out of 20 points for the assignment).  Depending on the context and on the number of students, the assignment will be carried out alone or in groups of 2-3 students.  September session  In the case of a second session, the student may pass both parts of the assessment, or keep the note of the practical work for the September session. The modalities are identical to the January session.				
Teaching methods	Lectures and practical work.  The course focuses on the development of data analysis skills. It has a strong practical component, through the manipulation of statistical software and the use of survey data to address research questions.  The lectures are organized around the presentation of analytical methods, their conditions of use, and the interpretation of the results of these methods in the context of social and political science issues. The practical work aims to develop the use of a statistical analysis software for data preparation (recoding, data structuring, etc.), data description, and the implementation of more advanced methods. Students also practice data analysis to address research questions as part of personal research work.				
Content	<ul> <li>Reminders of basic statistical vocabulary and concepts.</li> <li>Addressing a research question with quantitative data: the main steps.</li> <li>Quantitative data: how are they produced, what are their strengths and weaknesses, where can they be found?</li> <li>Preparation, description, visualization and critique of data before analysis.</li> <li>Reminders of notions of inference, hypothesis testing, etc.</li> <li>Univariate methods of analysis.</li> <li>Analyze relationships between two variables: contingency tables, differences in means, linear correlations.</li> <li>Methods of index construction.</li> <li>Causal analysis and statistical models: single and multiple linear regression, logistic regression.</li> <li>Introduction to principal component analysis and classification analysis.</li> <li>Analysis of survey data with SPSS software.</li> </ul>				
Inline resources	> https://www.europeansocialsurvey.org/ Relevant information can be placed on Student Corner.  Masuy-Stroobant G. et Costa R. (eds), 2013, Analyser les données en sciences sociales . De la préparation des données à l'analyse multivariée, Peter Lang, Bruxelles, 301 p. (Livre téléchargeable à l'adresse suivante : https://www.peterlang.com/downloadpdf/title/50872)				
Bibliography	<ul> <li>Masuy-Stroobant G. et Costa R. (eds), 2013, Analyser les données en sciences sociales. De la préparation des données à l'analyse multivariée, Peter Lang, Bruxelles, 301 p. (Livre téléchargeable à l'adresse suivante : https://www.peterlang.com/downloadpdf/title/50872)</li> <li>Micro-données de l'enquête sociale européenne.</li> <li>Les diapositives du cours sont disponibles sur student corner.</li> </ul>				
Other infos	The data used in the course are mainly from the European Social Survey (http://www.europeansocialsurvey.org/). The analyses are carried out with the SPSS software, available on the computers of the computer rooms. Depeinding on specific needs, other software packages can be used (Excel, R, Jamovi, Stata).				
Faculty or entity in charge	PSAD				

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Bachelor in Human and Social Sciences	HUSM1BA	5		٩		
Bachelor in Information and Communication	COMM1BA	5		٩		
Bachelor in Political Sciences: General	SPOM1BA	5		٩		