UCLouvain

Idemo2404

2023

Database management and processing

4.00 credits 15.0 h + 15.0 h Q1

Teacher(s)	Menashe Oren Ashira (compensates Schnor Christine) ;Schnor Christine ;					
Language :	English					
Place of the course	Louvain-la-Neuve					
Prerequisites	Preferably, the students should have acquired some basic knowledge on Stata (e.g. through the introductory course to STATA LDEMO2630) and have some knowledge about datasets. However, no statistical expertise is required since statistical methods are kept to a minimum.					
Main themes	Database management and processing provides the foundations needed to gather, handle and analyze complex survey or census data with STATA. The course focuses on 7 themes: 1. Introduction to Stata 2. Variable management (generating and modifying variables, dealing with string variables) 3. Data cleaning (dealing with missing data, duplicates, and date processing) 4. Organizing and documenting scripts 5. Data manipulation in subsets of data and across subgroups 6. Combining or reshaping datasets 7. Using loops and other tools to repeat commands over different files or segments of datasets 8. Visualizations and maps					
Learning outcomes	At the end of this learning unit, the student is able to: 1. be enabled to prepare efficiently survey or census datasets for analysis; handle survey and census data: clean the data, merge and reshape datasets, extract relevant information, apply functions over subset of the data, combine multiple datasets in one project;					
	3. use data visualizations (plots or maps) as tools to check the data.					
Evaluation methods	Formal mid-term and end-of-course evaluations are based on specific survey data sets. Assessments are weighted as follows: 15% Mini exam on basic Stata knowledge during class time (60 min) 10% homework 25% two assignments (small research projects) 50% written exam in session For the September session, students will be required to retake the written exam in session. The grades obtained in the continuous assessment will automatically be carried over to September. We draw your attention to two points: 1) Plagiarism will be penalized. Plagiarism is considered cheating and carries serious penalties, ranging from dismissal from the next year to expulsion. More information here. 2) An assignment submitted within 24 hours of a due date will receive only half the points, after 24 hours the assignment will receive a zero grade.					
Teaching methods	All lessons are a mix of a standard lecture and computer-based practical sessions based on real-life examples. The lectures provide the main concepts and tools, as well as basic knowledge required to do the exercises. Assignments are scheduled after each session to apply the procedures on datasets and verify the assimilation of concepts and tools. Corrections are offered at the beginning of each course.					
Content	Database management and processing provides the foundations needed to gather, handle and analyze complex survey or census data with STATA. The course focuses on 7 themes: 1. Introduction to Stata					

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	 Variable management (generating and modifying variables, dealing with string variables) Data cleaning (dealing with missing data, duplicates, and date processing) Organizing and documenting scripts Data manipulation in subsets of data and across subgroups Combining or reshaping datasets Using loops and other tools to repeat commands over different files or segments of datasets Visualizations and maps
Inline resources	https://www.stata.com/bookstore/data-management-reference-manual/
Other infos	Prerequisites It is requested that students have acquired basic knowledge of Stata through the LDEMO2630 Introduction to STATA course in Q1. The LDEMO2630 course is taught in a flipped classroom format. Introductory videos, lecture notes, and exercises are available on Moodle. However, no statistical expertise is required as statistical methods are kept to a minimum. The course and the lab are given in English. You can test your level of English via the Wallangues platform where you can create a free account. After the test, if your result is lower than B2, we strongly recommend you to follow a training in English proposed by the Institut des Langues Vivantes (IVL): https://uclouvain.be/fr/etudier/ilv/nosformations.html
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	4		٩			
Master [120] in Population and Development Studies	SPED2M	4		٩			
Mineure en statistique et science des données	MINDATA	3		٩			