UCLouvain

ldemo2404

2021

Database management and processing

4.00 credits	15.0 h + 15.0 h	Q2

Teacher(s)	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 ; 2. 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	The formal mid-term and end-term assessments are based on specific survey datasets. Evaluations are weighted in the following way: • **10% mini exam** on basic knowledge in Stata during lecture time (60 mn) • **20% homework exercises** • **30% two assignments (small research projects)** • **40% oral exam at end of term**
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 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

Other infos	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.
Faculty or entity in charge	PSAD

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Sociology	SOC2M	3		
Master [120] in Population and Development Studies	SPED2M	4		
Mineure en statistique et science des données	MINDATA	3		
Advanced Master in Quantitative Methods in the Social Sciences	LMQS2MC	4		