| UCLouvain | ldemo2404  2018 | Database management and processing |
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| 3 crédits | 15.0 h + 15.0 h | Q2 |
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| Enseignants | Bocquier Philippe (supplée Schnor Christine) ;Schnor Christine ; |
| Langue d'enseignement | Anglais |
| Lieu du cours | Louvain-la-Neuve |
| Préalables | 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. |
| Thèmes abordés | 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 |
| Acquis d'apprentissage | 1  To enable students to prepare efficiently survey or census datasets for analysis.  By the end of this course, students should be able to  - 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,  - Use data visualizations (plots or maps) as tools to check the data.  The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled 'Programmes/courses offering this Teaching Unit'.  - - - -  *La contribution de cette UE au développement et à la maîtrise des compétences et acquis du (des) programme(s) est accessible à la fin de cette fiche, dans la partie « Programmes/formations proposant cette unité d'enseignement (UE) ».* |
| Modes d'évaluation des acquis des étudiants | The formal mid-term and end-term assessments are based on specific survey datasets. Evaluations are weighted in the following way:  • **15% mini exam** on basic knowledge in Stata during lecture time (60 mn)  • **15% homework exercises**, due on the following Tuesday evening  • **20% assignment** at end of the course  • **50% final open-book exam, on computer** |
| Méthodes d'enseignement | The course consists of a standard lecture (15h) and computer-based practical sessions (15h). The lectures provide the main concepts and tools, as well as basic knowledge required to do the exercises.  Assignments in the form of self-test exercises or homework exercises are scheduled after each session to apply the procedures on datasets and verify the assimilation of concepts and tools. Corrections of the exercises are offered at the beginning of the practical session. Solutions for the assignments are made available.  We provide links to short videos that explain the procedures for data management and processing; this allows to prepare/repeat the content of the class on individual speed. |
| Contenu | 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<br>8. Visualizations and maps |
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| Faculté ou entité en charge: | PSAD |

| Programmes / formations proposant cette unité d'enseignement (UE) | | | | |
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| Intitulé du programme | Sigle | Crédits | Prérequis | Acquis d'apprentissage |
| Master [120] en sciences de la population et du développement | SPED2M | 3 | | 🔍 |
| Mineure d'ouverture en statistique et science des données | LOSTA100I | 3 | | 🔍 |