UCLouvain

lpols1221

2019

Quantitative Data Analysis

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

4 credits	25.0 h + 20.0 h	Q1

Teacher(s)	Marquet Jacques ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	*The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Main themes	The course comprises: 1. Introduction to research logic 2. Cross table analysis 3. Index construction 4. Introduction to classification analysis 5. Introduction to principal component factorial analysis.
Aims	1 The course and practical work are intended to help students acquire basic data analysis skills in the Social Sciences and constitute an introduction to multivariate analysis. By the end of this course, students should be able to: 1°/ specify the different types of problems-questions for which the methods studied in the course are relevant; 2°/ interpret the statistical analyses for which these methods apply; 3°/ make deliberate use of the principal instruments of descriptive statistics and statistical inferencing introduced during the Statistics and Elements of Probability course and which will be reviewed when the related SPSS commands are taught. - - - - *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".*
Content	The course will be based on secondary analysis, using existing data. Initially, the course will introduce students to research logic, demonstrating the inherently constructed character of any type of data. The introduction will cover the following topics: the primacy of the initial research question, the hypothesis-concepts-indicators sequence, measuring levels and elements of sampling theory. The second part of the course concentrates, through problem-question solving activities, on variable construction and description and the interpretation of contingency tables used as a means of testing simple hypotheses. The third part of the course examines multivariate data analysis. This firstly involves showing the postulates underlying the methods under scrutiny, the limitations of their use, the questions that they make it possible to solve, and correct interpretation of the analyses. The course will emphasise dimensional and classificational analysis methods. The software used throughout the course and for the exercises is SPSS. The course alternates between lectures and sessions dealing with concrete examples (problem-question solving); these are carried out during the practical exercise sessions (computer-based).
Other infos	Course entry requirements: This course expands on the Statistics and Elements of Probability course and the Study Skills Seminar , both of which students must have attended before taking this course. Evaluation: Students will be evaluated according to pre-defined objectives by means of a written examination. This exam will test students' ability to correctly apply the methods introduced in the course and interpret the results of analyses. Ongoing (auto-)evaluation: While they are taking the course, students will be given a wide range of problems to solve, and will thus be able to evaluate their performance on an ongoing basis. Course materials: Lecture notes written by the teachers; a copy of the OHP transparencies used on the course; a reading portfolio containing articles presenting or discussing the methods studied in the course; a computerised data file (and the accompanying code-book) on which the examples are based and which students can practise on. Supervision: An assistant gives the practical exercise classes.
Faculty or entity in charge	ESPO

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Aims
Minor in Human and Social Sciences	LHUSO100I	4		
Minor in Population and Development Studies	LSPED100I	4		
Minor in Political Sciences	LSPOL100I	4		
Minor in Sociology and Anthropology	LSOCA100I	4		
Master [120] in Public Administration	ADPU2M	4		
Master [120] in Human Resources Management	GRH2M	4		
Master [120] in Population and Development Studies	SPED2M	4		
Bachelor in Political Sciences: General	SPOL1BA	4		
Bachelor in Human and Social Sciences	HUSO1BA	4	LCOPS1114 AND LHUSO1125	
Master [120] in Political Sciences: General	SPOL2M	4		
Bachelor in Philosophy, Politics and Economics	PPE1BA	5		
Master [60] in Political Sciences: General	SPOL2M1	4		
Master [120] in Political Sciences: International Relations	SPRI2M	4		
Bachelor in Sociology and Anthropology	SOCA1BA	4	LCOPS1114 AND LSOCA1125	