UCLouvain

lpsys2144

2020

Data analysis: measure patterns

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

6 credits	45.0 h + 15.0 h	Q1

Teacher(s)	Caesens Gaëtane ;Grégoire Jacques ;Penta Massimo ;Penta Massimo (compensates Grégoire Jacques) ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	Item response models, particularly the Rasch model, for the construction of measurement scales Factor analysis, structural equation models
Aims	1 A2 : etc...ceci doit être rédigé de manière commune pour tous les cours et donc je suppose par l'instance responsable de l'adoption de ces définitions - - - - *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".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Written exam with multiple choice and/or open questions according to the sections. It is required to pass succesfully both parts of the course.
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Lectures, readings, demonstrations
Content	The course combines lectures, articles, an introduction to using the software (in particular SPSS, R) and the analysis of real data by the students themselves. A theoretical and methodological framework is provided to promote student activity in the analysis and interpretation of data. **The Rasch and IRT models** The students discover the classical approach (Cronbach's alpha) and the modern approach (Rasch, IRT) through examples of analysis of a quantitative questionnaire. They will also discover the psychometrical foundations of scaling involved in interpreting answers to a questionnaire (unidimensionality criterion, fit indices, differential functioning, dichotomous and polytomous item analysis). **Factor analysis** The postulates and implications of exploratory and confirmatory factor analysis models. Common practice and specifici procedures (eg: rotations, parallel analysis...) as well as technical difficulties. Common applications of the procedures and their software imlmentation with a critical approach to tjeresults, fit, and interpretation.
Inline resources	Check Moodle
Other infos	Either this course or Data Analysis: Prediction Models is a prerequisite the the Advanced Workshop of methods and analysis The present course requires knowledge of basic concepts and methods in statistics and classical psychometrics. Namely LPSP1011 Statistique : Analyse descriptive de données quantitatives LPSP1209 Statistique, inférence sur une ou deux variables LPSP1212 Psychométrie
Faculty or entity in charge	EPSY

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Psychology	PSY2M	6		🔍
Master [120] in Education (shift schedule)	FOPA2M	4		🔍