



6.00 credits	45.0 h + 15.0 h	Q1
--------------	-----------------	----

Teacher(s)	Caesens Gaëtane ;Penta Massimo ;
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
Learning outcomes	At the end of this learning unit, the student is able to : 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
Evaluation methods	Written closed-book exam with multiple choice and/or open questions. The final grade is the weighted average of the grades for part A (The Rasch and IRT models) and for part B (Factor analysis). In the final grade, part A accounts for 12/20 and part B accounts for 8/20.
Teaching methods	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. Part A: 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). Part B: Factor analysis The postulates and implications of exploratory and confirmatory factor analysis models. Common practice and specific procedures (eg: rotations, parallel analysis...) as well as technical difficulties. Common applications of the procedures and their software implementation with a critical approach to their results, fit, and interpretation.
Inline resources	Check Moodle
Other infos	Either this course or Data Analysis: Prediction Models is a prerequisite for 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	Learning outcomes
Master [120] in Psychology	PSY2M	6		
Master [120] in Statistics: General	STAT2M	6		
Master [120] in Education (shift schedule)	FOPA2M	4		