



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 10/20 and part B accounts for 10/20.
Teaching methods	Lectures and/or videos available on moodle (ezcast), readings, demonstrations and formative exercises.
Content	The course combines lectures, articles, an introduction to using the software (in particular SPSS, Mplus, R) and exercises. 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 (e.g., rotations...) as well as technical difficulties. Common applications of the procedures and their software implementation with a critical approach to the results, fit, and interpretation.
Inline resources	Check Moodle
Other infos	The following courses provide important assets for the understanding and integration of this lecture: LPSP1011 Statistique : Analyse descriptive de données quantitatives LPSP1209 Statistique, inférence sur une ou deux variables LPSP1211 Psychométrie The course is given in French, but a set of English slides is available for international students: no The core reading for the course is in French, but equivalent core reading is available for international students in English: no The standard exam is a written exam in French. However, international students taking this course: <ul style="list-style-type: none">• Will be allowed to use a dictionary when taking the written exam in French: yes• Will be allowed 33% more time when taking the written exam in French: no• Are provided with the opportunity to take the written exam in English: no• Are provided with the opportunity to take an alternative oral exam in English : no
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		