lpsp1211

2025

Psychometrics

The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

| 4.00 credits | 30.0 h + 15.0 h | Q2 |

Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	In order to offer students a degree of flexibility, there are two ways (named 'integration methods') of assessing their learning. At the beginning of each term, students must choose which option they wish to follow until the September deliberations.

- The "Examination only" option (or integration method) means that the final mark for the course is 100% determined by the mark obtained in the examination.

- The "Full" formula (or integration method) means that 75% of the final mark for the course is determined by the mark obtained in the examination and 25% by the continuous assessment organised as part of the practical work (TP). In other words, the final mark is the weighted average of the examination mark and the practical work mark. In the final mark, the practical part is worth 5/20 and the examination part is worth 15/20. If the final mark for the course is less than 10/20, the student must retake only the failed parts (examination and/or practical work) and the mark passed is carried over to the mark for the 2nd session to calculate the final mark. The points allocation key for the practical part is likely to change in the second session depending on the feasibility of obtaining all the points obtainable in the first session (i.e. the practical part is always worth 25% but the practical points are likely to be obtained differently in the second session).

By default, the "Exam only" option (or integration method) is allocated to students who have not indicated their choice of option within the allotted time. Only with the exceptional agreement of the teacher in charge of the course can a student change formula.

The examination is a multiple-choice test designed to assess students' understanding of the concepts and appropriate use of the notions and formulas covered in the course. The examination arrangements are not systematically the same for both sessions: An oral exam may be organised instead of the written exam for assessment in the second session (August). The written exam is organised remotely via Moodle. Special arrangements may be made for PEPS students and international students who are not fluent in French.

In order to give students an idea of what is expected of them and to enable them to adapt their study of the subject accordingly, a mock test on a subject associated with and prerequisite for the course is offered, with sample questions at a level of difficulty similar to that of the written exam. Finally, students will be notified of their marks in the mock test.

Practical work consists of completing a series of assignments throughout the four-month term of the course and attending and participating in the practical work sessions organised by the course assistants. The aim of the practical work is to apply the concepts of psychometrics to a concrete, real and useful case (generally the adaptation or development of a test). In addition, the practical work will include sample questions from the written exam to help students prepare for the exam.

The use of generative artificial intelligence (AI) to produce assignments is only **accepted if the following 2 conditions are met**:

(1) The work submitted must explicitly state which paragraphs have been generated by an AI.

(2) The work submitted must contain an additional page containing a personal critique of the benefits and weaknesses of using generative AI in the very specific context of the work requested. This implies that the person(s) using generative AI must evaluate and question the quality of the result obtained using generative AI, in particular by comparing it with other sources of information. At least 3 arguments (> half a page) are expected in the personal critique. If the personal critique is assessed as unsatisfactory (failure to comply with the instructions and/or weaknesses in the arguments), a penalty of -30% on the mark may be applied.

An assignment submitted where the use of generative AI is deemed highly probable by the teaching team despite no mention of the use of generative AI may be considered as cheating or plagiarism and will result in a corresponding penalty determined by the teaching team.

Members of the teaching team may detect the use of generative AI. If the use of generative AI is suspected, the teacher may ask the author(s) of the work to provide evidence of the writing and/or request a meeting with the author(s) for further information.

Teaching methods	Lectures and practical work to put into practice the knowledge acquired during the course and to carry out psychometric exercises.

Content	Test creation and adaptation, including item construction methodology
	    Validity and its evidence
	    Reliability and confidence intervals
	    Item analysis
	    Norms and score transformation
	    Classical score theory
	    Item response theory (an introduction)
	    Generalisability theory (an introduction)

Inline resources	All PowerPoint presentations are available on Moodle as the course progresses. On Moodle you will also find : - information and locations for submitting assignments (practical work) - the written exam and the mock exam - announcements from the teaching team - discussion forums to address the teacher and each other - documents to support student learning Teams software is used when the course is delivered co-modally or, exceptionally, remotely. Written exchanges, including answers to questions asked, and sometimes recordings of the course, will be found on Teams. During the written exam, Teams is used to communicate with all the students. For students looking for an alternative or complementary teaching source, Prof. Jean-Luc Roulin's psychometrics course is available at https://www.psychometrie.jlroulin.fr/ .

Other infos	The courses listed below provide an important foundation for understanding and integrating the material in this course.
	LPSP1011: Statistics: Descriptive analysis of quantitative data
	LPSP1209: Statistics 2: Inference on one or two variables.
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	To contact the teaching team, please use the Moodle Forum, especially if the question is likely to concern several students. If you contact us by email, please make sure to :
	- contact the professor if the email concerns teaching in a large auditorium (henryk (point) bukowski (at) uclouvain.be) or the relevant assistant if the email concerns practical work.
	- indicate the acronym and name of the course in the email title
	- in the body of your email, put in bold the subject (objective, core of your request)
	- if relevant, indicate the TP series concerned or all the members of your work group
	Without this information, your email may not receive the appropriate follow-up.
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	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 of June (1st session) is a written exam in French. However, international students taking this course:
	
	  • 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: yes if justified and requested >2 weeks before exam
	  • 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
	
	The standard exam of August (2nd session) could be an oral exam in French. However, international students taking this course:
	
	  • Will be allowed to take the oral exam in English: yes
	  • Are provided with the opportunity to take an alternative written exam in English: no
	
	The course requires coursework in French. However, international students taking this course:
	
	  • Can provide the coursework in English: yes
	  • Can be exempt from providing the coursework: yes with the formula "Examen uniquement"

Faculty or entity in charge	EPSY

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Psychology and Education: General	PSP1BA	4		🔍
Mineure en statistique et science des données	MINDATA	4		🔍
Bachelor in Psychology and Education : Speech and Language Therapy	LOGO1BA	4		🔍