UCLouvain

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2025

Numercial cognition in adults, including acquired acalculie

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	Q2

Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	The assessment is made by a written exam including:
	 questions of definition of main terms/concepts; open questions of restitution and reflection (e.g., draw a diagnosis based on a clinical case).
	Students are notified early in the course of the assessment methods, including the fac that some questions require to integrate the content of various chapters; they are recalled at the end of the semester. Some examples of possible questions are presented in class and/or available on Moodle.
	The exam is corrected by the teacher.
	The course is not subject to ongoing evaluation.
Content	The course presents the main concepts of the field of numerical cognition, showing the contribution and complementarity of various types of data (behavioural, brain imaging and lesion data), in animals, children and healthy and brain-injured adults. The most important functional architectures are presented on the basis of classical empirical studies from the scientific literature and clinical case studies. The course also develops the notion of acquired acalculia in adults. It shows the variety of acalculic disorders following brain injury, and addresses the issues of diagnosis, assessment and rehabilitation of these disorders, detailing the guidelines of a standard examination and rehabilitation.
Inline resources	The course material consists of:
	 the slides presented in the course, available on Moodle; synthesis chapters from French and English books. Each chapter is accompanied by a list of references including (i) all the works explicitly cited in the course, (ii) recommended readings, and (iii) when possible, some websites allowing students to deepen their knowledge in an interactive way.
Bibliography	Des ouvrages de référence de base sont présents en bibliothèque de Psychologie; les ouvrages suivants sont recommandés:
	 Butterworth, B. (1999). The mathematical brain. London: Macmillan Campbell, J.I.D. (Eds.) (2005). Handbook of mathematical cognition. New York: Psychology Press. Cohen Kadosh, R., & Dowkers, A., Eds. (2015) The Oxford Handbook of Numerical Cognition. Oxford Oxford University Press. Dehaene, S. (1997, 2010). La bosse des maths. Paris: Odile Jacob. Noel, M-P. (Ed.), (2005). La dyscalculie. Trouble du développement numérique chez l'enfant. Marseille
	 Solal. Pesenti, M., & Seron, X. (Eds.), (2004). La cognition numérique. Paris: Hermes Science Publications. Pesenti, M., & Seron, X. (Eds.), (2000). Neuropsychologie des troubles du calcul et du traitement des nombres. Marseille: Solal.
Other infos	The course is given in French, in an "English-friendly" format:
	communication with the teacher can be done in English; slides and supports will be written in French, recommended readings will be in French and English; the exam will be written in French; the use of a dictionnary will be allowed. International students are given the opportunity to answer their exam in another language (other possible languages: English or Italian) if they do not feel themselves fluent enough in French. Please note that this possibility requires a formal agreement BEFORE the exam session starts; contact Mauro Pesenti <mauro.pesenti@uclouvain.be> in due time.</mauro.pesenti@uclouvain.be>
Faculty or entity in charge	ELOG

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Master [120] in Speech and Language Therapy	LOGO2M	4		Q		