

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).

3 credits	30.0 h	Q2
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Teacher(s)	Duque Julie (coordinator) ;Hardwick Robert (compensates Vandermeeren Yves) ;Nozaradan Sylvie ;Vandermeeren Yves ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	Key topics to meet these objectives. The description of the neurophysiological basis of pain perception. Nervous mechanisms and functioning of inter-hemispheric interactions and their role in motor control. The main mechanisms of nervous motor control areas by frontal and parietal cortex. The neurophysiological basis of memory and learning. The description of the phenomenon of plasticity in the central nervous system and their mechanisms.
Aims	<p>1 At the end of this entity of education, students should be able to understand the foundations of science in neuroscience through the study of nervous mechanisms particularly suited to the neurological rehabilitation. It should also be able to undertake the critical reading of a scientific article published in the field of neuroscience.</p> <p>-----</p> <p><i>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".</i></p>
Teaching methods	<p>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</p> <p>Ex-cathedra courses, either face-to-face or distance learning, if conditions dictate.</p> <p>The courses given by Robert Hardwick will be in English. This concerns 1/3 of the courses.</p>
Content	<p>students should be able to understand the foundations of science in neuroscience through the study of nervous mechanisms particularly suited to the neurological rehabilitation. It should also be able to undertake the critical reading of a scientific article published in the field of neuroscience. Key topics to meet these objectives:</p> <ul style="list-style-type: none"> - cerebral lateralization, the functioning of inter-hemispheric interactions and their role in motor control. - The main nervous mechanisms underlying our ability to make decisions, to select relevant actions and to inhibit less relevant behaviours. - The neurophysiological basis of memory and learning. - The description of plasticity phenomena in the central nervous system and their mechanisms. - Perception of faces. - The main nervous mechanisms underlying hearing, perception of rhythms and music. - The main mechanisms underlying sleep. - The autonomic nervous system.
Other infos	<p>Prerequisite: Physiology and Neurophysiology course (BAC 12)</p> <p>Language used for the courses: French and English</p> <p>Evaluation : Written exam</p> <p>Support: Course slides on Moodle</p> <p>Supervision: Titulars</p> <p>This course is given partially in English.</p>
Faculty or entity in charge	FSM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Physiotherapy and Rehabilitation	KINE1BA	3	LIEPR1021 AND LIEPR1022 AND LIEPR1024 AND LKINE1024	