



In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

4 credits	40.0 h + 10.0 h	Q2
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Teacher(s)	Dumont Patrick ;Gofflot Françoise ;Knoops Bernard ;
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>
Aims	<p>To establish the bases in biochemistry, physiology and histology, the main animal tissues will be studied, emphasis being put on mammalian tissues. Certain notions in cellular biology will also be deepened with the objective of integrating morphological, physiological and biochemical aspects in cellular processes.</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>
Evaluation methods	<p><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p>Oral examination with written preparation or written examination only. The questions will concern the subject of the different parts of the course, ie the locomotion, the nervous system, the sense organs and the endocrine system, including the teaching of practical work.</p>
Teaching methods	<p><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p><i>Ex cathedra</i> classes, inverted classes, practical work.</p>
Content	<p>This teaching unit will include,</p> <ol style="list-style-type: none"> <li>1. For the part of the study of the musculoskeletal system:             <ol style="list-style-type: none"> <li>A. The skeleton                 <ul style="list-style-type: none"> <li>Axial skeleton</li> <li>Belts</li> <li>The appendicular skeleton</li> </ul> </li> <li>B. Skeletal muscles                 <ul style="list-style-type: none"> <li>Organization of skeletal muscles</li> </ul> </li> </ol> </li> <li>2. For the part of the study of the nervous system:             <ol style="list-style-type: none"> <li>A. Sensitivity and sensory treatments                 <ul style="list-style-type: none"> <li>The somesthetic system</li> <li>Pain</li> <li>Visual pathways</li> <li>The auditory system</li> <li>The vestibular system</li> <li>Chemical senses</li> </ul> </li> <li>B. Motor skills and central control                 <ul style="list-style-type: none"> <li>Motor neurons and motor control</li> <li>Central controls of the brain stem and spinal cord</li> <li>Modulation of movements by the ganglia of the base</li> <li>Modulation of movements by the cerebellum</li> <li>Eye movements</li> <li>The vegetative nervous system</li> </ul> </li> </ol> </li> <li>3. For the part dealing with sensory reception:             <ol style="list-style-type: none"> <li>A. the chemical senses                 <ul style="list-style-type: none"> <li>the olfactory mucosa</li> </ul> </li> </ol> </li> </ol>

	<p>taste buds</p> <p>B. The eye and vision</p> <p>C. The ear and the auditory and vestibular systems</p> <p>4. For the part of the study of the endocrine system:</p> <p>A. Introduction</p> <p>Overall view of the endocrine system</p> <p>The different types of hormones</p> <p>Mechanisms of hormonal action</p> <p>Endocrine regulation: important concepts</p> <p>B. The main endocrine glands</p> <p>Hypothalamus and pituitary gland</p> <p>Thyroid</p> <p>The parathyroid glands</p> <p>The endocrine pancreas</p> <p>The epiphysis (pineal gland)</p> <p>The adrenal</p> <p>The organs / structures of the different systems taught in the lectures will be illustrated during practical sessions thanks to the observation and analysis of histological sections.</p>
Inline resources	Course Powerpoints available on Moodle.
Bibliography	Ouvrages de référence : Neurosciences (Purves <i>et al.</i> , éditions de Boeck). Pour la partie relative au système endocrinien: Précis de Physiologie Médicale (Guyton & Hall ; Piccin Nuova Libreria); The endocrine System (Hinson, Raven & Chew ; Elsevier). Ouvrages conseillés, non indispensables.
Other infos	Presence in practical work is mandatory. Any unjustified absence will be sanctioned.
Faculty or entity in charge	BIOL

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Biochemistry and Molecular and Cell Biology	<a href="#">BBMC2M</a>	4		
Bachelor in Biology	<a href="#">BIOL1BA</a>	4	<a href="#">LCHM1141A</a> AND <a href="#">LBIO1111</a> AND <a href="#">LBIO1112</a>	
Minor in Biology	<a href="#">LBIOL100I</a>	4		