

2.00 credits

0 h + 22.5 h

Q2

Teacher(s)	Page Melissa ;Rees Jean-François ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	BAC2 physiology, histology, and biochemistry course
Main themes	<p>HISTOLOGY</p> <ul style="list-style-type: none"> - Preparation of histological sections from paraffin-embedded organs (liver, heart, transverse muscle section, and longitudinal muscle section) - Staining of sections using PAS staining (to highlight glycogen) <p>BIOCHEMISTRY</p> <ul style="list-style-type: none"> - Measurement of glycogen in the liver and skeletal muscle using a colorimetric technique <p>PHYSIOLOGY</p> <ul style="list-style-type: none"> - Effect of stimulation frequency on muscle contraction - Effect of stimulation intensity on muscle contraction - Effect of a pharmacological agent on muscle contraction
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p><u>Contribution of teaching to the learning outcomes included in the VETE reference framework</u></p> <p>1 <u>1.1.2, 1.2.1, 1.2.3, 1.2.4, 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.5, 2.1.6, 2.1.7, 3.1.1, 3.1.2, 3.1.3, 4.1.1, 4.1.2, 4.1.3, 6.2.1, 7.1.1, 7.1.2, 7.1.3</u></p> <p><u>Essential and/or specific learning outcomes of the course</u></p> <p>2</p> <ul style="list-style-type: none"> • measure muscle contraction using an appropriate device • perform histological sections and highlight glycogen in histological preparations • measure glycogen in tissues • integrate the three disciplines of physiology, histology, and biochemistry to test a scientific hypothesis • write a report integrating the results obtained using three different experimental approaches in three different disciplines
Evaluation methods	Writing a report integrating the three components of the activity.
Teaching methods	Practical work supervised by the assistants.
Content	<p>The practical work is divided into three parts:</p> <p>HISTOLOGY</p> <p>Making histological sections from paraffin-embedded organs (liver, heart, muscle cross-section and muscle sectioned longitudinally)</p> <p>Staining of sections by PAS staining (glycogen detection)</p> <p>BIOCHEMISTRY</p> <p>Determination of glycogen in the liver and skeletal muscle by colorimetric technique</p> <p>PHYSIOLOGY</p> <p>Effect of stimulation frequency on muscle contraction</p> <p>Effect of intensity of stimulation on muscle contraction</p> <p>Effect of a pharmacological agent on muscle contraction</p>
Inline resources	https://moodleucl.uclouvain.be/course/view.php?id=7626

Bibliography	• Syllabus avec les instructions pour les travaux pratiques Les références recommandées sont spécifiées dans le syllabus
Faculty or entity in charge	VETE

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Veterinary Medicine	VETE1BA	2		