UCLouvain

lvete1296

2023

Physiologie générale

3.00 credits	22.5 h + 6.0 h	Q2

Teacher(s)	Donnay Isabelle ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	Recommended knowledge of basic notions of cellular and molecular biology, physics (solid and fluid mechanics and electromagnetism), and medical imaging to understand the general physiology course
Main themes	The course deals, on a functional point of view, with the basis of general physiology and neuromuscular physiology (membrane potential, synapses, neurotransmitters, skeletal and smooth muscle contraction, sensory receptors and pathways, motor control, vision and audition'). It focuses on the characteristics of domestic animals and on the key points for the clinical diagnosis. Practical exercises deal with reflexes and positioning responses as well as the analysis of simple clinical cases in relation with the theoretical course.
Learning outcomes	**At the end of this learning unit, the student is able to :** 1 At the end of this activity, the student : - Knows and understands the generation of membrane potential et its modifications; the functioning of the striated and smooth muscles; the role and functioning of the various parts of the sensory and motor nervous systems; the functioning of the main sense organs. - Knows and understands the origin of the main differences between domestic species concerning the functioning of the nervous system and the sense organs. - Is able to interpret some clinical signs related to a dysfunction of the neuromuscular system. - Is able to perform and interpret basic reflexes and positioning responses on a domestic animal (dog) Is able to link different concepts seen during the course in order to answer on a clear and structured way to transversal questions related to neuromuscular physiology.
Evaluation methods	Oral examination with written preparation. The focus is set on the global understanding of functions and on the reasoning skills. Reports of the practical sessions are included in the final evaluation.
Teaching methods	Oral presentations with small active learning activities (guided questions; use of wooclap) and concrete examples. Practical sessions realized in groups with living dogs (first session) or from movies and descriptions of clinical cases (second session). The students have to write a short report during each session.
Content	1. Table of content : theoretical part • Introduction • Resting membrane potential and action potential • Synapses • Muscle contraction (skeletal and smooth muscle) • Sensory receptors and pathways • Motor control • Cerebellum and vestibular system • Sense organs (audition and vision) 2. Content of the practical exercises: • The practical session (3h) deals with reflexes and positioning responses
Inline resources	All usefull resources are available on Moodle. Students have access to an online forum to ask questions.
Other infos	The course is complementary to the course of anatomy of the nervous system which is given in parallel (LVETE1241B). The practical session also includes notions of the anatomy of the nervous system. It is therefore important that the student follows this course for a good understanding of the physiology course.
Faculty or entity in charge	VETE

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Veterinary Medicine	VETE1BA	3		🔍