

Module name:		Animal physiology 2
ECTS:		6
Learning effects		Course outcomes:
Knowledge:	1	Student knows the functioning of individual cell structures / systems / organs such as smooth muscle, digestive system, liver, pancreas, respiratory system, kidney, female and male reproductive system, mammary gland, adipose tissue
	2	Student knows the species differences in the functioning of organs / systems and their physiological parameters (digestive system - specificity of digestion in ruminants, thermoregulation, kidney, reproductive system, pregnancy and lactation, physiology of birds)
	3	Student knows the functional connections between the organs / tissues
	4	Student knows the methods of testing parameters determining the physiological state of the body such as: water and electrolyte balance, peripheral blood morphological analysis, methods of testing kidney function, indirect transformation
	5	Student knows the mechanisms integrating the functioning of the whole body and maintaining homeostasis of the body (thermoregulation, water and electrolyte balance, acid-base balance, metabolism and energy)
	6	Student knows the disturbances in the functioning of the organs as examples of malfunctioning of the body
	7	Student knows the concepts of intellectual property protection
Skills:	1	Student can explain the physiological mechanisms / molecular mechanisms of cellular structures / organs / systems such as: the nervous system, CNS, AUN, skeletal muscles, heart muscle, cardiovascular system, sense organs, respiratory system
	2	Student can explain the physiological fundamentals / mechanisms of sensation and perception, movement and maintenance of body posture, physiological fundamentals of behaviour, endocrinology (hypothalamic-pituitary axis, peripheral endocrine glands and tissue hormones), regulation of blood flow in vessels, gas exchange
	3	Student can indicate how the discussed tissues / organs / systems can affect each other and what are the consequences for the functioning of the body
	4	Student can indicate the parameters describing the physiological state of the organs / systems in question - can define the physiological (health) state of the body
	5	Student can plan and carry out a simple experiment allowing the analysis of physiological parameters
	6	Student can perform a morphological analysis of peripheral blood by a traditional method, spirometry by various methods and examine blood saturation
	7	Student can analyse information from publicly available databases, including scientific ones
Competences:	1	Student is ready to evaluate and interpret the functioning of the body / systems / organs / cells in the context of smooth muscle activity, digestive system, liver, pancreas, respiratory system, blood, kidney, reproductive system of the female and male, mammary gland, adipose tissue, their mutual impact and ensure the homeostasis of the body
	2	Student can indicate interspecies differences in the functioning of organs / systems and explain the molecular / physiological basis of these differences (digestive system - specificity of digestion in ruminants,

		thermoregulation, kidney, reproductive system, pregnancy and lactation, physiology of birds)
	3	Student is ready to perform basic physiological (scientific) experiments and to draw correct conclusions from the observations made
	4	Student is critical of his knowledge and constantly updates it in accordance with the latest state of general knowledge, uses scientific sources to expand his knowledge
	5	Student is ready to cooperate - consult other people and share the knowledge with others
	6	Student is ready to apply his knowledge and skills in further stages of education
Objectives of the module required to obtain learning effects:		During the animal physiology course in the summer semester, student acquires basic and advanced knowledge of the physiology of gastrointestinal system energy balance, water homeostasis, storage systems, excretory systems, animal reproduction, lactation and the basic physiology of neonates. The acquired knowledge will allow to understand the functioning of individual organs / systems as well as the body as a whole. It will also be the basis for further education of students allowing identification of disorders in the proper physiological functioning of the body and its tissues / organs (among others: pathophysiology, internal diseases, etc.).
Assessment methods:		Seminars, 2 written tests, written exam