

SYLLABUS

Name of the course (as specified in the approved curriculum) Basics of Animal Physiology			Number of ECTS credits 5
Name of the course in Polish Podstawy Fizjologii Zwierząt			
Unit providing the course Department of Animal Physiology and Biochemistry			
Course co-ordinator Dr hab. Marek Skrzypski, Dr hab. Paweł A. Kołodziejcki			
Field of study Animal Production Management	Level II – master studies	Profile Academic-general	Semester 1
TYPE OF CLASSES AND COURSE LOAD (Classes with teacher and student's own work)			
Mode of studies: full-time		Mode of studies: part-time	
- lectures	10	- lectures	-
- practical classes	0	- practical classes	-
- field classes	0	- field classes	-
- labs	20	- labs	-
- consultations	5	- consultations	-
- own student's work	65	- own student's work	-
- others	25	- others	-
Total number of hours		125	Total number of hours
OBJECTIVE OF THE COURSE			
<ol style="list-style-type: none"> 1. Cardiovascular System: Blood 2. Cardiovascular System: The Heart and Blood Vessels, Circulation, Respiratory System 3. The Digestive System 4. The Reproductive System and Lactation 5. Endocrine system: hormones 			
TEACHING METHODS			
Lectures: Presentations, discussion, questions and discussion, and solving current problems			
Labs: Presentations, performing basic physiological experiments, discussions, questions, and tutorial movies			
Preparation of a phased project verified by the teacher.			
Course learning outcomes			The reference to the study field learning outcomes
Knowledge	O1: Role and composition of blood: morphological elements of blood, the role of blood cells, immunological aspects of blood circulation		AP2A_W10 AP2A_W11
	O2: Describe the differences between types of blood vessels. Regulation of respiration and circulation, the mechanism of respiration		
	O3: Physiology of the digestive system in different breeding animals, role of digestive enzymes, absorption of sugars, fat, and proteins. Effect of nutrition on metabolism and pathophysiology.		
	O4: Define fertilization, recall the fundamentals of lactation, the role of reproductive hormones, physiology of gonads		
	O5: Endocrine system in animals.		
	O6: Physiology of muscles, metabolic differences between fibre types, mechanism of contraction and relaxation.		
	O7: Physiology of the urinary system.		

Skills	<p>O8: Conduct systematic searches, critically evaluate and interpret information from scientific literature, databases, and other relevant sources related to animal physiology, and effectively present and communicate this knowledge to diverse stakeholders in oral, written, and graphical formats.</p> <p>O9: Prepare and revise experimental reports, design and conduct physiological experiments (e.g., measurement of digestive enzyme activity), and effectively present the results in oral form.</p>	AP2A_U01 AP2A_U02
Social competences	<p>O10: Recognizes the importance of continuous professional development and actively enhances their knowledge and skills, while motivating and supporting others in the learning process. Demonstrates creativity, initiative, and the ability to think and act in an entrepreneurial way.</p> <p>O11: Demonstrates the ability to work effectively in a team, assuming various roles, including that of a team member and a leader, while showing responsibility, effective communication skills, and the ability to organize and coordinate tasks to achieve common goals.</p>	AP2A_K01
<p>Methods for verifying learning outcomes Practical classes – test, oral assignment. Phased project. Written exam.</p>		Symbols of course learning outcomes O1-O11
TEACHING CONTENTS		
<p>Lectures: Lectures will include the basic knowledge about animal physiology, different kinds of physiological systems (reproductive, cardiovascular, digestive, endocrine).</p>		
<p>Labs: Labs will include practical experiments that will consolidate and verify acquired knowledge. During the classes, students become acquainted with the latest methods of physiological research and the equipment used in this field. Students are introduced and work with Lt LabStation a lab-based learning platform.</p>		
<p>Forms and criteria for completing the course</p> <p>Attendance and participation. Achieving a minimum passing grade (labs, phased project, and exam).</p>	Percentage of a final grade 20% 80%	
Literature list		
<p>Core literature:</p>		
<p>"Anatomy and Physiology of Farm Animals" - Rowen D. Frandson, W. Lee Wilke, Anna Dee Fails https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://salehsalmanblog.files.wordpress.com/2016/01/01-anatomy-and-physiology-of-farm-animals-7th-edition1.pdf</p>		
<p>“Cunningham's Textbook of Veterinary Physiology” - Bradley G. Klein https://share.google/nodf5CXY9BP1FRcde</p>		
<p>Guide For the care and use of Laboratory Animals Committee for the Update of the Guide for the Care and Use of Laboratory Animals https://share.google/D6rqOz4SQPoyeeJv8</p>		
<p>“Pathology of Laboratory Animals” - Floris M. Garner, Thomas Carlyle Jones, Kurt Benirschke</p>		
<p>Additional sources</p>		
<p>Scientific database:, Scopus, NCBI (eg. PubMed), Web of Science, Tutorial movies Website: https://www.rspca.org.uk, https://www.criver.com, https://www.jax.org/</p>		