Course code: ……. **Plan position:** ……

A. INFORMATION ABOUT THE COURSE

B. Basic information

Name of course	Animal anatomy and physiology
Field of studies	
Level of studies	
Profile of studies	
Form of studies	
Specialty	
Unit responsible for the field of studies	Faculty of Animal Breeding and Biology
Name and academic degree of teacher(s)	Marcin Komosa, assoc. prof. Magdalena Stanek, assoc. prof Karolina Ropejko, PhD
Introductory courses	
Introductory requirements	

C. Semester/week schedule of classes

Semester	Lectures (W)	Auditorium classes (Ć)	Laboratory classes (L)	Project classes (P)	Seminar (S)	Field classes (T)	Number of ECTS points
winter	20		20				8

2. LEARNING OUTCOME

No.	Learning outcomes description	The reference to the learning outcomes of specific field of study	The reference to the learning outcomes for the area
KNOWLEDGE			
W1	He has knowledge of animal anatomy and basic functions and construction of the most important organs and anatomical systems		
W2	He has knowledge of the biomechanics of movement. He is able to characterize the musculoskeletal system in animals		
W3	He has knowledge of terminology, nomenclature, basic physiological and biochemical processes occurring in animal organisms		
SKILLS			
U1	He is able to perform simple research tasks, prepare individual anatomical elements and make a short description; knows the topography of internal organs		

U2	He has the ability to assess selected parameters of animal health, takes preventive and prophylactic action to ensure correct body functions leading to production optimization		
SOCIAL COMPETENCES			
K1	He is able to work independently and in a team; to cooperate and perform entrusted tasks, control and discuss the effects of work		

3. TEACHING METHODS

A. Traditional methods used ***

multimedia presentations, demonstration of anatomical preparations and structures, individual students' work, films

B. Distance learning methods used ***

Synchronous method (classes conducted in a way that ensures direct interaction between the student and the teacher in real time, enabling immediate flow of information, the method can be used only if it is provided for in the study plan for a given cycle of education):
e.g. remote lecture in the form of videoconference, remote discussion, etc.

Asynchronous method used as an auxiliary (a method that does not ensure direct interaction between the student and the teacher in real time, used only as an auxiliary / complementary method):
e.g. online educational videos, online multimedia presentations, etc.

4. METHODS OF EXAMINATION

worksheets, presentation, referat

5. SCOPE

Lectures	General anatomy. Skeletal system. Muscular system. The digestive apparatus. The respiratory system. The endocrine glands. Urogenital apparatus. Cardiovascular system. Sensory organs. The common integument. Nervous system. Anatomy of the carnivorous and herbivorous animals. Physiology of digestion. Physiology of respiration. The cardiovascular system and its physiology. Physiology of excretion and osmoregulation. Control and coordination physiology of the nervous system. Movements and locomotion. Control and coordination of the endocrine system.
Laboratories	Bones of skull, spine, ribs, sternum; anterior and posterior limbs. Muscles that suspend the forelimb. Muscles of the forelimb and the hind leg. Spine muscles. Connective tissue. Epithelial tissue. Nervous cell structure and muscular tissue. Oral cavity. Abdominal organs and placement of the viscera. Excretory system and the structure of the female reproductive system. Male reproductive system. Endocrine glands. Structure of the respiratory system. The structure of the cardiovascular system and the heart. Conduction of action potentials, nerve reflexes and functioning of the body in the environment, blood testing, cardiac muscle physiology; digestive processes occurring in the mouth, in the stomach and in the small intestine; the influence of various factors on metabolism; synthesis of final nitrogen transformation components and determination of normal urine components; the influence of hormones on puberty and functions of the reproductive system.

6. METHODS OF VERIFICATION OF LEARNING OUTCOMES

LEARNING OUTCOME	Form of assessment					
	Oral examination	Written exam	Colloquium	Worksheet	Presentation	Referat
W1				x	x	x
W2				x	x	x
W3				x	x	x
U1				x		x
U2				x		x
K1				x	x	

7. LITERATURE

Basic literature	Dee Fails A., Magee Ch. Anatomy and Physiology of Farm Animals. Wiley-Blackwell, 2018 Randall D., Burggren W., French K. Eckert Animal Physiology: mechanisms and adaptations. W. H. Freeman and Company, 2000.
Supplementary literature	Bowden S. Veterinary Anatomy and Physiology: A Workbook for Students, Butterworth-Heinemann, 2003. McCracken T.O., Kainer R.A., Carlson D. Color atlas of small animal anatomy. The essentials. Blackwell Publishing, 2008. Lawson J.R. Anatomy and physiology of animals. Platypus Global Media, 2011. Hill R.W., Wyse G.A., Anderson M. Animal physiology. Sinauer Associates, 2016.

8. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDITS

Student's activity		Student workload– number of hours
Classes conducted under a direct supervision of an academic teacher or other persons responsible for classes	Participation in classes indicated in point 1B	40
	Supervision hours	10
Student's own work	Preparation for classes	50
	Reading assignments	60
	Other (preparation for exams, tests, carrying out a project etc)	40
Total student workload		200
	Number of ECTS points	8