

Course title: ANIMAL AND HUMAN PHYSIOLOGY

ECTS credit allocation (and other scores): 4

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Natural sciences

Language: English

Number of hours per semester: 100

Course coordinator/ Department and e-mail: prof. dr hab. Tadeusz Kamiński, Department of Animal Anatomy and Physiology, tkam@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Blood physiology: basic hematological indicators. Blood circulatory system - heart work and its regulation. Functioning and construction of the nervous system - reflexes and reception of information. The digestive processes in different sections of the digestive tract. Structure of the digestive tract. Construction and functioning of the reproductive system of female and male mammals (farm animals). The regulation of lactation, ingredients of the milk.

LECTURES: Composition and functions of blood, erythropoiesis and immunological processes. Structure, role and properties of the myocardium. Structure and functions of capillaries. Nervous system, its structure. Transmission of information in the body. Conditioned and unconditional reflexes. Endocrine system. The role of hormones in the body. Structure of the gastrointestinal tract of mammals and birds. The specificity of digestion in individual species of domestic animals. Structure and functioning of the reproductive system of mammals. The process of production and excretion of milk.

LEARNING PURPOSE: Learning basic information about the structure and functioning of the mammalian organism, with particular reference to domestic animals. An increase of knowledge about the physiological processes. Understanding the relationships between these processes and their importance and use in animal breeding and production.

On completion of the study programme the graduate will gain:

Knowledge: The student understands and describe the functioning of the animal body; knows the basics of anatomy, development and reproduction of domestic animals; explains and describes the mechanisms of animal life processes.
Skills: The student uses the available sources of information to solve a specific problem or task; knows how to present his position using various forms of communication; analyzes the influence of various physiological processes on the health and productivity of animals; has the ability to use this knowledge in animal production; assesses the correctness of the activities of the most important organs and systems in a healthy animal organism; is able to perform a simple physiological experiment

Social Competencies: The student is aware of the need for continuous training; is aware of the need to comply with health and safety rules; is open to work in a team; follows the rules of ethics

Basic literature: *Dukes' Physiology of Domestic Animals*, 2015. Edited by William O. Reece, Howard H. Erickson, Jesse P. Goff and Etsuro E. Uemura. John Wiley & Sons, Inc. **Supplementary literature:** *Human Physiology*, 2016, An integrated Approach 7e, Pearson Education, Inc.; *Functional Anatomy and Physiology of Domestic Animals*, William O. Reece, 2017 John Wiley and Sons, Inc.

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 62

Student's independent work: 38