

Module code	M_WE_SEM 10 PW 1H/2H CHMET
Field of study	Veterinary medicine
Module name, also the name in English	Metabolic diseases of farm animals Choroby metaboliczne zwierząt gospodarskich
Language of instruction	English
Module type	elective
Level of studies	Long-cycle master's degree studies
Form of study	Full-time
Year of study in the field of study	VI
Semester of study in the field of study	XI
ECTS credits, divided into contact/non-contact hours	1 (0.6/0.4)
Academic title/degree, name of the person responsible for the module	Dr. Jan Marczuk
Unit teaching the module	Department and Clinic of Internal Animal Diseases
Module objective	Introducing students to pathology, diagnostics, therapy and prevention of metabolic diseases in ruminants, pigs and horses. Students acquire skills of practical diagnosis, therapeutic management and prophylactic actions in metabolic diseases in large livestock of ruminants, pigs and horses. Based on the results of clinical examination, laboratory tests, and analysis of milk yield results, students will acquire skills in the diagnosis and therapeutic management of metabolic disorders in cow herds.
The learning outcomes for the module include a description of the knowledge, skills and social competences that the student will gain after completing the module.	<p>Knowledge:</p> <p>K1. The student knows the basic disorders of protein, carbohydrate, fat and mineral metabolism that occur in ruminants, pigs and horses.</p> <p>K2. The student knows the clinical symptoms and changes of biochemical, hematological parameters in laboratory tests of ruminants, pigs and horses.</p> <p>K3. The student knows therapies for metabolic diseases of ruminants, pigs and horses</p> <p>Skills:</p> <p>S1. The student is able to diagnose metabolic disorders in ruminants, pigs and horses</p> <p>S2. The student is able to collect material for testing and interpret laboratory results in ruminants, pigs and horses</p> <p>S3. The student is able to monitor overall health of large herds by performing metabolic testing of the herd.</p> <p>Social competences:</p> <p>C1. The student demonstrates readiness to take responsibility for decisions made in relation to the animal and its owner</p> <p>C2. The student has a sense of responsibility for animal welfare, animal nutrition and the production of foodstuffs of animal origin</p> <p>C3. The student is willing to improve own skills in metabolic diseases.</p>
Prerequisites and additional requirements	According to the sequence of subjects

Module program content	<p>Practical classes: Basic metabolic disorders in dairy cows (ketosis, hepatic steatosis syndrome, displacement of the digestive tract), equine metabolic syndrome, equine hyperlipemic syndrome; laboratory diagnostic methods in metabolic diseases; monitoring of metabolic diseases in the herd; evaluation of the degree of nutrition (BCS) on the occurrence of diseases; effect of heat stress on the occurrence of diseases; therapeutic nutrition in cattle diseases the withering period of cows and the occurrence of diseases; anion diets; metabolic diseases of beef cattle; modern trends in nutrition and the health of dairy cows; metabolic disorders in calves; the impact of grass endophytes on metabolism in ruminants, the impact of feed mycotoxins on the course of metabolism in pigs, ruminants and horses; the role of probiotic supplementation on the course of metabolism in ruminants, pigs and horses</p>																																
List of core and supplementary literature	<p>Core literature 1. Jackson M.L.: Veterinary Clinical pathology. An introduction. Blackwell Pub., 2007 2. Scott R. R. Haskell; . Blackwell's Five-Minute Veterinary Consult: Ruminant. Willey-Blackwel, 2009 Supplementary literature Scientific papers</p>																																
Planned forms/activities/teaching methods	multimedia presentations, laboratory exercises, discussion, presentation of clinical cases																																
Verification methods and ways of documenting the achieved learning outcomes.	<p>Knowledge - written assessment in the form of a single-choice test Grade: Very good 93 - 100% Good plus 85 - 92 % Good 78 - 84% Satisfactory plus 71 - 77% Satisfactory 63 -70% Skills - evaluation of independently performed analytical procedures by the instructor Competences - participation in discussions, oral answer to a problem, teamwork skills</p>																																
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<p>Relation of module learning outcomes to course learning outcomes.</p>	<p>K1. - B.W9 ++ K2. – B.W5 ++ K3. – B.W6 +++ S1. – B.U2 +++; B.U3 S2. – B.U6 ++ S3. - B.U13 ++; B.U5 +++ C1. – K1 ++ C2. – K7 ++; K5 ++ C3. - K8 +++</p>
<p>Elements and values affecting the final grade</p>	<p>Final grade Final test - 100% weightage</p>