Module code	M_WE_SEM11 PW 1K/2K ANAL CHZGK
Field of study	Veterinary medicine
Module name, also the name in English	Clinical analytics of farm animals and horses diseases
	Clinical analytics of farm animals and horses diseases.
Language of instruction	Polish
Module type	optional
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	The aim of the course is to provide students with knowledge on the proper selection of laboratory tests based on the data from the patient's history and clinical examination, and the correct interpretation of the results obtained. Students also learn the practical skills to perform basic laboratory tests and correctly interpret the results obtained in terms of the animal's clinical condition.
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.	Knowledge:
	K1. Knows the general mechanisms that result in damaging organs and body systems and lead to organ failure.
	K2. Knows basic laboratory tests and their usefulness in clinical practice
	K3. Knows and appropriately interprets clinical data along with laboratory and ancillary test results
	Skills:
	S1. Knows how to properly collect material for testing, deliver it o the laboratory, and perform basic laboratory testing.
	S2. Knows how to correctly interpret laboratory test results in livestock and horses in terms of the animal's clinical condition
	S3. Knows how to find, analyse, and use the necessary animal analytical data from a variety of sources and in a variety of forms
	Social competences:
	Sc1. Is prepared to demonstrate responsibility for decisions made about people and animals
	Sc2. The student is willing to continuously improve his knowledge and skills in laboratory testing.
Prerequisites and additional requirements	according to the sequester resolution

Module program content	Practical classes: Principles of collection, labelling, and transfer of material for laboratory testing; pre-analytical and analytical errors; laboratory testing apparatus, principles of biological materials neutralisation; species and organ diagnostic profiles: hepatic, muscular, cardiac, skeletal; urine laboratory testing, functional tests to evaluate the urinary system, serum enzymatic activity parameters, testing of parameters of metabolism: carbohydrate, fat, protein, acid-base balance, endocrine testing, mail order specialized laboratories; metabolic profiles of the herd; analysis of milkability results (tabular charts)
List of core and supplementary literature	Core literature: 1. Winnicka A.: Wartości referencyjne podstawowych badań laboratoryjnych. Publisher SGGW, Warsaw, 1997 2. Jackson M.L.: Veterinary Clinical pathology. An introduction. Willey Blackwell Pub., 2007 3. Scott R. R. Haskell; Blackwell's Five-Minute Veterinary Consult: Ruminant. Willey-Blackwel, 2009 4. Thrall M.A., Weiser G., Allison R., Campbel T.W.; Veterinary hematology and clinical chemistry. Willey Blackwell 5. Duncan and Prasse's Veterinary Laboratory Medicine Clinical pathology. Willey Blackwell Supplementary literature: 1. Marczuk J., Lutnicki K., Łuć A.; Badanie moczu w diagnostyce laboratoryjnej chorób przeżuwaczy. Weter. Teren. 2016, 10, no. 4, pp. 57-61. 2. Marczuk J.; Brodzki P.; Diagnostyka kliniczna i laboratoryjna chorób przedżołądków u bydła. Weter. Teren. 2014, 8, no. 4, pp. 9-15.
Planned forms/activities/teaching methods	Multimedia presentations, laboratory classes, practical performance of analytical procedures, discussion, presentation and discussion of clinical cases
Verification methods and ways of documenting the achieved learning outcomes.	Knowledge – semester credit is earned by passing a one-choice test. Allowable number of absences from classes - 1 absence. Scale of grades: 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 Competencies - participation in discussion, oral answer to a hypothetical problem-focused task,

<table>
<tr><td>ECTS credits</td><td>
<table>
<tr><td colspan="3">Contact hours</td></tr>
<tr><td>Form of classes</td><td>Hours</td><td>ECTS credits</td></tr>
<tr><td>Recitation classes</td><td>2</td><td>0.07</td></tr>
<tr><td>Laboratory classes</td><td>13</td><td>0.49</td></tr>
<tr><td>Test credit</td><td>1</td><td>0.04</td></tr>
<tr><td>Total</td><td>16</td><td>0.6</td></tr>
<tr><td colspan="3">Non-contact hours</td></tr>
<tr><td>Preparation for classes</td><td>5</td><td>0.2</td></tr>
<tr><td>Literature review</td><td>5</td><td>0.2</td></tr>
<tr><td>Total</td><td>10</td><td>0.4</td></tr>
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<tr><td>The workload of activities that requires direct participation of an academic teacher</td><td>
<table>
<tr><td>Form of classes</td><td>Hours</td><td>ECTS credits</td></tr>
<tr><td>Participation in recitation classes</td><td>2</td><td>0.07</td></tr>
<tr><td>Participation in laboratory classes</td><td>13</td><td>0.49</td></tr>
<tr><td>Test credit</td><td>1</td><td>0.04</td></tr>
<tr><td>consultations</td><td></td><td></td></tr>
<tr><td>Total</td><td>16</td><td>0.6</td></tr>
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<tr><td>Relation of module learning outcomes to course learning outcomes.</td><td>W1 - WE_W16 ++
W2 - WE_W21 +++
W3 – WE_W19 ++
U1 - WE_U19 +++
U2 - WE_U20 ++
U3 - WE_U18 ++
K1 – WE_K1 ++
K2 – WE_K 6 ++</td></tr>
<tr><td>Elements and values affecting the final grade</td><td>Final grade
Final test - 100% weightage</td></tr>
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