

Module code	M_WE_SEM11 PW 1J/2J USG OSK
Field of study	Veterinary medicine
Module name	Ultrasound examination in the acute clinical disease Badanie USG w ostrych stanach klinicznych
Language of instruction	English
Module type	elective
Level of studies	Long-cycle Master's Degree studies
Mode 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 (0,57/ 0,43)
Academic title/degree, name of the person responsible for the module	dr. n. vet. Piotr Dębiak
Unit teaching the module	Laboratory of Radiology and Ultrasonography
Module objective	Mastery by students of structured substantive content and practical skills in diagnostic ultrasound in acute clinical conditions of small animals.
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:
	W 1 is knowledgeable of the purpose of ultrasound examination in acute clinical conditions of animals and the basics of ultrasound equipment functioning
	Skills:
	U 1 is able to perform basic ultrasound examinations in acute clinical conditions of animals
	U 2 is able to evaluate ultrasound imaging results and formulate diagnoses in animals in acute clinical conditions
	Social competences:
	K 1 is ready to set priorities to accomplish tasks, identify and resolve dilemmas associated with performing ultrasound examination in acute clinical settings
K 2 is aware of his/her own limitations and understands the need for constant education and self-improvement in the field of veterinary medicine activities in the field of imaging techniques	
Prerequisites and additional requirements	According to the sequence of subjects
Module programme content	Specifics of ultrasound image formation. Principles of preparing the patient for the examination, interpretation of results. Sonographic management of acute conditions, FAST protocols. Documentation of ultrasound examinations in acute clinical settings. Ultrasonographic examination in post-traumatic chest conditions and acute abdominal syndrome. Ultrasound assessment during monitoring of the post-trauma patient. A retrospective analysis of clinical cases.

List of core and supplementary literature	<ol style="list-style-type: none"> 1. J. Kevin Kealy Hester McAllister John Graham „Diagnostic Radiology and Ultrasonography of the Dog and Cat”, Saunders 2010. 2. Frances J. Barr , Edited by Lorrie Gaschen “BSAVA Manual of Canine and Feline Ultrasonography”, British Small Animal Veterinary Association 2011. 3. John S. Mattoon, Thomas G. Nyland, „Small Animal Diagnostic Ultrasound”, Saunders 2015.
Planned forms/activities/teaching methods	Demonstration in the form of presentation, discussion, practical exercises on transducer application in FAST protocols, formulation of ultrasound examination descriptions
Verification methods and ways of documenting the achieved learning outcomes.	<p>During the course of the module, class discussion is held during which class participants gain knowledge of diagnostic management algorithms for the acute clinical patient. The student must be prepared for classes to the extent of curriculum topics discussed.</p> <p>In order to verify the student's knowledge a written test will be performed, consisting of an independent description of 2 ultrasound examinations of patients in acute clinical conditions. Descriptions are scored on a scale of 2-5. The instructor evaluates the student's statement based on his/her knowledge and experience. Submissions are graded according to the rule:</p> <p>insufficient - 0-50% sufficient - 51-56% sufficient plus - 57-63% good - 64-71% good plus - 72-84% very good - 85-100%</p> <p>Verification of practical skills will take place during practical classes with the patient, during which the student is required to perform the FAST protocol. The instructor assesses skills. To pass the exam it is necessary to indicate at least 3 areas of the abdominal cavity to which the transducer is applied.</p>
ECTS credits	<p>Contact classes:</p> <ul style="list-style-type: none"> - participation in exercises - 15 hours. (0.5 ECTS) - practical course credit - 2 hours. (0.07 ECTS) <p>17 hrs total which is equivalent to 0.57 ECTS credits</p> <p>Non-contact classes:</p> <ul style="list-style-type: none"> - preparation for laboratory classes - 6 hours. (0.2 ECTS) - development of class reports - 7 hours. (0.23 ECTS) <p>13 hrs total which is equivalent to 0.43 ECTS credits</p>
The workload of activities that require direct participation of an academic teacher	<ul style="list-style-type: none"> - participation in exercises - 15 hours. - practical course credit - 2 hours. <p>17 hrs total which is equivalent to 0.57 ECTS credits</p>

Relation of module learning outcomes to major learning outcomes	W1 - B.W4.+, B.W5.+, B.W6.++ U1 – BU1+, BU2+, BU7++ U2 – BU7++ K1 – K5+, K10+ K2 – K8++
Elements and values affecting final grade	Final grade: Theoretical credit pass - 50% weight Theoretical credit pass - 50% weight