

Module title:	Ultrasound diagnostics in companion animals	ECTS	1
Polish translation:	Diagnostyka ultrasonograficzna u zwierząt towarzyszących		
Course:	Veterinary Medicine		

Module language: English		Stage: JM-FVM	
Form of studies: ☒ intramural ☐ extramural	Type of module: ☐ basic ☐ mandatory ☒ directional ☒ elective	Semester: 11	☒ winter semester ☐ summer semester
Academic year:		Intake 2021/2022	Catalogue number: FVM-V-JMSS-11W-ED10_20

Module coordinator:		Dr hab. Sławomir Giziński		
Teachers responsible for the module:		Academic teachers of the Faculty of Veterinary Medicine, Department of Large Animal Diseases with Clinic; PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study		
Assumptions, Goals, and Course Description		During the course, students gain practical knowledge of various ultrasound examination methods in companion animals, including dogs, cats, and exotic pets. During the course, we place emphasis on the practical ultrasound examination of the patient and on aspects relevant to clinical practice. During the course, most examinations are performed independently by students under the supervision of experienced diagnosticians.		
Teaching forms, number of hours:		a) Clinical practice hours 15		
Teaching methods:		Presentation of mains types of ultrasound imaging (using various probes, using various types of ultrasound machines), practice exercises, and demonstration with patients in the Animal Clinic		
Formal prerequisites and initial requirements:		General surgery and anaesthesiology, Dog and cat diseases, Animal anatomy modules 1-2, Topographic anatomy, Animal physiology modules 1-2, Biophysics, Diagnostic imaging, Equine diseases Participating students should have knowledge of clinical, pathology, internal diseases, surgery, and imaging methods of pets and horses		
Learning effects		Course outcomes:	Learning outcomes relative to the course outcomes	Impact on the course outcomes*
Knowledge:	1	The student knows how to use USG machines	B.W.5	3
	2	The student knows goals of the USG examination of dogs and cats	B.W.9	3
	3	The student knows which probe to select for examining specific organs	B.W.4, B.W.5, B.W.6, C.W.3	3
	4	The student knows how to write up the examination description for documentation.	B.W.4, B.W.5, B.W.6, C.W.3	3
Skills:	1	The student can explain the examination's purpose and scope to the owner.	A.U.12, B.U.2, A.U.19, B.U.1, B.U.3, B.U.6, B.U.20, C.U.2	3
	2	The student can select the probe placement site	B.U.7	3
	3	The student is able to prepare the animal for the examination (shaving, positioning).	B.U.3	3
Competences:	1	The student can select an examination method based on the indications and the animal's clinical condition	K.S.4, K.S.5, K.S.7	3
	2	Independently makes clinical diagnosis	KS.3; KS.10	3
	3	The student may order other diagnostic imaging examinations.	KS.4; KS.5	3
Objectives of the module required to obtain learning effects:		The primary objective of the module is to familiarize the student with the examination technique and its clinical indications.		

Assessment methods:	Presence and activity on all workshops Short case report of diagnostic and therapeutic protocol in a selected case
Detail description of assessment methods; Formal documentation of learning outcome:	No extra assessment methods are anticipated. eHMS entry. Presence list and written case report.
Elements impelling final grade:	Case report: 60%, presence and activity during classes: 40%
Teaching base:	Classrooms and examinations rooms of the Large Animal Clinic
Mandatory and supportive materials : 1. Small Animal Diagnostic Ultrasound 3th edition. J.S Mattoon, T.G Nayland. Elsevier 2015. 2. Equine Diagnostic Ultrasound. V.B Reef . Saunders 1998. 3. Atlas of equine ultrasonography. J.A. Kidd, K.G. Lu, M. L. Frazer. Wiley Blackwell 2014 4. Diagnostic Radiology and Ultrasonography of the Dog and Cat, 5th Edition. J.K. Kealy, H. McAllister, J.P. Graham, Elsevier 2010. 5. Diagnostic Imaging of Exotic Pets: Birds, Small Mammals, Reptiles. M.E. Krautwald-Junghanns, M. Pees, S. Reese, T. Tully. Schluetersche 2010	
ANNOTATIONS	

* 3 – complete and detailed, 2 – moderate, 1 – basic.

Quantitative summary of the module:

Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module - base for quantifying ECTS:	15h
Total ECTS points, accumulated by students during contact learning:	1 ECTS