Syllabus

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

Module language:	English				Stage:	JM
■ intramural □ extramural	module:	□ basic □ directional □ accessory □ rotation □ summer practice	☐ mandatory ■ elective	Semester:1: Year 6		■ winter semester □ summer semester
			Academic year:	2019/2020	Catalogue number:	FVM-V-JMSS-11W-E31_19

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Module coordinator:	dr hab. Sławomir Giziński				
Teachers responsible for the module:	Academic teachers of the Institute 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				
Unit responsible for the module:	Institute of Veterinary Medicine; Department of Large Animal Diseases and the Clinic				
Faculty in charge:	Faculty of Veterinary Medicine				
Objectives of the module:	During the course students obtain practical knowledge about various method of ultrasound examination in companion animals as dogs, cats, horses and exotic pets				
Teaching forms, number of hours:	a) Clinical exercises: 15 h				
Teaching methods:	Presentation of mains types ultrasound imaging (using various probes, using various types of ultrasound machines) practice exercises with patients in 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 since, pathology, internal diseases, surgery and imaging methods of pets and horses				
Learning outcomes:	Knowledge: Student knows how to use USG machines Student knows goals of the USG examination in pets and horses Student knows basic acoustic mechanisms of image creations Student knows most common diagnostic differences between various internal organs Student knows principles of most common examination technique (trans-rectal, transabdominal using various types of probes)	Skills: 	Competences:		
Assessment methods:	Presences and activity on all workshops Short case report of diagnostic and therapeutic protocol in selected case				
Formal documentation of learning outcomes:	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 Animal Clinic				
Mandatory and supporting materials					

Mandatory and supportive materials

- 1. Small Animal Diagnostic Ultrasound 3th edition. J.S Matoon, 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

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:	
Total ECTS points, accumulated by students during contact learning:	1 ECTS

Learning outcomes of the module relative to the learning outcomes of the subject:

Outcome category	Learning outcomes:	Learning outcomes relative to the course outcomes	Impact on the course outcomes*)
Knowledge -	Student knows how to use USG machines	W_NK4, W_NK7, U_PUZ6	3;3;3;
Knowledge -	Student knows goals of the USG examination in pets and horses	WW_NP7, U_OUZ5, U_PUZ14, K_KP1	3;3;3;3
Knowledge	Student knows basic acoustic mechanisms of image creations	WW_NP7, W_NK1, W_NK2	3;3;3
Knowledge	Student knows most common diagnostic differences between various internal organs	W_NK4, U_PUZ7	3;3;
Knowledge	Student knows principles of most common examination technique (trans-rectal, transabdominal using various types of probes)	WW_NP10, WW_NP11, W_NK3	3;3;3

*)

3 – Significant and detailed,

2 – Partial,

1 – Basic,