

Code of subject	M_WE_SEM10 PW 1H/2HDIAG CYTO
Field of study	Veterinary medicine
Name of the training module including the Polish name	Diagnostic cytomorphology in veterinary pathology Diagnostyka cytomorfologiczna w patologii weterynaryjnej
Language of instruction	English
Type of the training module	elective
Level of the training module	Master level
Form of studies	Stationary
Location in the programme (year)	V
Location in the programme (semester)	X
Number of ECTS credits with a division into contact/noncontact	1 (0,68/0,32)
Name and surname of the person in charge	Dr hab. Wojciech Łopuszyński
Unit offering the subject	Department of Pathomorphology and Forensic Veterinary Medicine
Aim of the module	The aim of the module is to familiarize with the methods of collecting biological material for cytological tests and the methods of staining. The aim of the module is to recognize the basic changes in the cytological image, interpret and describe the changes, and make the final morphological diagnosis. The aim is to acquire the ability to select appropriate cytological diagnostic methods and basic skills in the qualitative assessment of smears. The aim is to prepare for smearing and staining cytological preparations and interpretation of the results in future veterinary practice.
Learning outcomes	<p>Knowledge:</p> <p>K1. Student knows the method of fine-needle and thick-needle biopsy and the methods of staining in veterinary diagnostic cytomorphology.</p> <p>K2. Student knows the morphological features of normally and abnormally differentiated cells.</p> <p>K3. Student knows medical nomenclature to the extent necessary to describe cytopathological changes.</p> <p>Skills:</p> <p>S1. Student can interpret the results of the cytopathological examination, providing the initial diagnosis and taking into account the differential diagnosis.</p> <p>S2. Student can collect biological material for cytopathological examination and can assess the quality of a smear.</p> <p>Social competences:</p> <p>C1. Student is aware of the need to deepen knowledge and develop skills in the field of cytodiagnosics.</p>
Preliminary and additional requirements	Passed exam in the subject of pathomorphology

Contents of the training module – a compact description	<p>Classes: Usefulness of cytological tests in the diagnosis of diseases of internal organs, in the assessment of the effectiveness of surgical procedures in the course of neoplastic diseases, inflammations and selected infectious diseases. Indications and methods of biopsy of internal organs. Handling the collected biological material. Qualitative assessment of the smear. Usefulness of biopsy in determining hyperplasia, metaplasia, dysplasia, and neoplasia. Methods of collecting and staining biological material. Performing a fine needle biopsy. Staining of smears and interpretation of the results.</p>		
Recommended and obligatory reading list	<p>Obligatory reading list:</p> <ol style="list-style-type: none"> 1. Raskin R.E., Meyer DJ "Canine and Feline Cytology. A Color Atlas and Interpretation Guide", 3rd Edition, Saunders Elsevier 2. Villiers E., Ristic J. "Manual of Canine and Feline Clinical Pathology", 3rd Edition, BSAVA <p>Supplementary reading list:</p> <ol style="list-style-type: none"> 3. Valenciano A.C., Cowell R.L. "Cowell and Tyler's Diagnostic Cytology and Hematology of the Dog and Cat", 5th Edition, Elsevier 4. Valli V.E. "Veterinary Comparative Hematopathology", Blackwell 		
The intended forms/activities/ teaching methods	Laboratory exercises, multimedia presentations, demonstrations of methods of collecting and staining biological material, discussion		
Methods of verification and documentation forms of the achieved learning outcomes	<p>K – passing the module on the basis of a positive result from the written test (30 questions scoring on a 0-1 point) at the minimum level of 61%;</p> <p>S – assessment of the correctness of the collection of biological material and staining of a smear, verification of the ability to give the description of the lesions on the basis of the cytological image; assessment of the preparation of a multimedia presentation (scoring system 2-5);</p> <p>C – participation in the discussion, answers to questions during laboratory classes, presentation during the classes;</p> <p>The assessment system according to the Book of Education Quality of the Faculty of Veterinary Medicine.</p>		
Balance of ECTS credits	CONTACT		
		Hours	ECTS
	laboratory exercises	15	0,6
	consultation	1	0,04
	Written test	1	0,04
	In total:	17	0,68
	NONCONTACT		
	preparation for the classes	6	0,24
	preparation for the test	2	0,08
	In total:	8	0,32
Number of contact hours	participation in classes		15
	consultations		1

	test	1	0,04
	In total:	17	0,68
Relationship between subject learning outcomes and veterinary studies learning outcomes	K1 – WE_W21++ K2 – WE_W15 ++ K3 – WE_W13 +++ S1 – WE_U19 +++ S2 – WE_U19 ++ C1 – WE_K6 ++		
Impact of selected compounds to final grade	The condition for passing the module is obtaining a positive grade from the written test, preparing a multimedia presentation as well as preparing and assessing a cytopathological preparation. Final grade consists of: written test – weight 50% multimedia presentation – weight 20% preparation and evaluation of a smear – 30%		