Module title:	Clinical haematology	**ECTS**	**1**
Polish translation:	Hematologia Kliniczna		
Course:	**Veterinary Medicine**		

Module language: English		Stage: JM-FVM	
Form of studies: ■ intramural ☐ extramural	Type of module: ☐ basic ☐ mandatory ■ directional ■ elective	Semester: 8	☐ winter semester ■ summer semester
Academic year:	**Intake 2021/2022**	Catalogue number:	FVM-V-JMSS-08S-ED02_20

Module coordinator:	**Dr Marek Kulka**
Teachers responsible for the module:	**Academic teachers of the Institute of Veterinary Medicine; Department of Pathology and Veterinary Diagnostics; PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study**
Objectives of the module:	Program of the course includes presentation of the most common blood disorders and its association with selected diseases as well as performing the modern haematological examination and treatment due to current knowledge. During the course students will improve their blood work skills (CBC, different types of blood smear staining and its assessment) and analyse the given cases
Teaching forms, number of hours:	a) Lectures; hours 5; b) Laboratory classes; hours 10; The content of the lectures supplements the content of the laboratory classes.
Teaching methods:	Multimedia lecture, practical classes. Methods aimed at teaching practical skills: • case studies - discussion, medical data analysis, • microscopic assessment of body fluids, • blood processing. Consultations (1hr/week). Detailed schedule will be defined by the coordinator of the course at the beginning of semester. Detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester.
Formal prerequisites and initial requirements:	Passing the courses: Clinical and Laboratory Diagnostics, Pharmacology, Parasitology and Invasiology,Pathomorphology 3

Learning effects		Course outcomes:	Learning outcomes relative to the course outcomes	Impact on the course outcomes*
Knowledge:	1	Student knows primary and secondary blood disorders and its association with selected (i.e. gastrointestinal, endocrinal, neoplastic, parasitic) diseases	A.W.10, A.W.11, A.W.12, B.W.2, B.W.3	3
	2	Student knows how to do the blood testing (CBC, blood smear staining, blood gas, basic biochemistry measurements)	B.W.4, B.W.6	3
	3	Student knows the transfusion medicine and blood processing protocols	B.W.3, B.W.9, B.W.4	2
	4	Student knows the algorithms in hematological examination	B.W.4, B.W.6, B.W.15	3
	5	Student knows the specific blood and bone marrow tests used in hematology	B.W.4, B.W.6	3
Skills:	1	Student is able to perform, blood tests and interprets the results	A.U.8, B.U.6	2
	2	Student based on the blood work, diagnostic imaging results (X-ray, US), and patient's clinical symptoms is able to do the hematological examination and propose the differential diagnosis (DDx)	B.U.2, B.U.10, B.U.13, B.U.20	3
	3	Student is able to propose and interprets additional blood and bone marrow specific testing when needed	A.U.2, B.U.6	2
Competences:	1	Student is prepared to formulate opinions and consultations regarding hematological examination of given patient with blood disorder/s	KS.1, KS.5	3

	2	Student is prepared to formulate opinions regarding the treatment based on the hematological examination outcome	KS.1, KS.5, KS.10	3
	3	Student is able to formulate opinions regarding additional testing etc. and consult the case with other team members to improve the consultation outcome	KS.1, KS.3, KS.4, KS.8, KS.9, KS.10	3
Objectives of the module required to obtain learning effects:		During the course student acquires basic and latest information in the field of haematology: the most common blood disorders and its association with selected diseases, modern hematological examination and treatment, improve blood work skills (CBC, different types of blood smear staining and its assessment), analysis of given cases.		
Assessment methods:		Attendance to the classes is mandatory, student can be absent on 20% of classes or according to the current academic regulations. Written, single choice final test of the acquired practical and theoretical knowledge, 15 questions, 1 point per correct answer. Essay assessment on given topic by the lecturer. In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.		
Detail description of assessment methods; Formal documentation of learning outcome:		No extra assessment methods are anticipated. eHMS entry. Records collected in the course portfolio i.e. individual records of student results, presence lists, database of oral and written questions, written assessments of the students.		
Elements impelling final grade:		Final test (100%), graded as following: 0-7 points – failed, 8-9 points sufficient, 10-11 sufficient +, 12-13 good, 14 good +, 15 very good		
Teaching base:		Lecture facilities and laboratories of the Faculty of Veterinary Medicine		
Mandatory and supportive materials : 1. Nelson Small animal internal medicine, Richard Nelson C. Guillermo Couto, 2019 2. Blackwell's Five-Minute Veterinary Consult: Canine and Feline, Larry P. Tilley , Francis W. K. Smith Jr, 2015 3. Schalm's Veterinary Hematology, Douglas J. Weiss (Editor), K. Jane Wardrop (Editor), 2010 4. Relevant scientific publications, including those of the module coordinator.				
ANNOTATIONS Max. 8 people per group.				

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