

Module title:	<b>Clinical Immunology</b>	<b>ECTS</b>	<b>1</b>
Polish translation:	Immunologia kliniczna		
Course:	<b>Veterinary Medicine</b>		

Module language: English		Stage: JM-FVM	
Form of studies: <input checked="" type="checkbox"/> intramural <input type="checkbox"/> extramural	Type of module: <input type="checkbox"/> basic <input checked="" type="checkbox"/> directional	<input type="checkbox"/> mandatory <input checked="" type="checkbox"/> elective	Semester: VII <input type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester
Academic year:		Intake <b>2022/2023</b>	Catalogue number: <b>FVM-V-JMSS-08S-ED01_22</b>

Module coordinator:	<b>Dr hab. Magdalena Żmigrodzka</b>			
Teachers responsible for the module:	Academic teachers of the Institute of Veterinary Medicine; PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study			
Course Description:	Seminar topics: <ul style="list-style-type: none"> <li>• MECHANISMS OF HYPERSENSITIVITY</li> <li>• TYPE I HYPERSENSITIVITY DISORDERS – ANAPHYLAXIS, CULICOIDES HYPERSENSITIVITY</li> <li>• BLOOD TRANSFUSION</li> <li>• ATOPY, FOOD ALLERGY</li> <li>• HAEMOLYTIC ANAEMIA AND IMMUNE MEDIATED THROMBOCYTOPENIA</li> <li>• TYPE II AND III HYPERSENSITIVITY DISEASE</li> <li>• INFLAMMATORY BOWEL DISEASE</li> </ul>			
Teaching forms, number of hours:	Seminars; hours 15			
Teaching methods:	<ul style="list-style-type: none"> <li>• Original multimedia presentations prepared by academic teachers</li> <li>• Methods aimed at teaching practical skills:             <ul style="list-style-type: none"> <li>• students group working on case analyses (according to the materials prepared by the teacher), including discussion and the use of scientific sources</li> <li>• quizzes regarding diagnostic and treatment strategies</li> </ul> </li> <li>• Consultations (1h/week)</li> </ul> <p>Detailed schedule of the classes and detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester.</p>			
Formal prerequisites and initial requirements:	Passing the courses: Immunology, Pathophysiology, Clinical and laboratory diagnostics, Veterinary 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 and differentiates the normal and abnormal immune mechanisms	A.W.11; A.W.12 A.W.2; A.W.10; B.W.1; B.W.2 B.W.3	3 2 1
	2	Student knows the hypersensitivity and autoimmune mechanisms and hypersensitivity (type I, II, III, and IV) and autoimmune diseases	A.W.11; A.W.12; B.W.2 A.W.10 B.W.3	3 2 1
	3	Student knows the clinical manifestations of immune-mediated diseases and knows other diseases with similar clinical appearance	A.W.12	3
	4	Student knows the diagnostic schemes and protocols (including differential diagnosis) for immune-mediated diseases	B.W.3	1
	5	Student knows the therapeutic schemes and protocols recommended for immune-mediated diseases, pharmacodynamic properties of recommended products and the interactions among medicinal products	B.W.3	1
	6	Student knows the sources of information regarding diagnostic and therapeutic protocols, medicinal products and the current recommendations and understands the general rules of treatment	B.W.3	1
	7	Student is familiar with the current nomenclature	A.W.20	2

Skills:	1	Student is able to describe the mechanisms of immune-mediated diseases comprehensively enough for effective communication with other members of the veterinary team and the animal's owner	A.U.4; A.U.12; A.U.13; A.U.14; A.U.15	3
	2	Student is able to use the current nomenclature	A.U.15; A.U.21; A.U.23	3
	3	Student is able to plan the diagnostic procedures (including differential diagnosis) in the diseases that manifest by symptoms that may suggest immune-mediated disorder	A.U.12; A.U.13; A.U.23 A.U.19 B.U.7	3 2 1
	4	Student is able to plan and monitor the treatment strategies	A.U.12, A.U.13; B.U.20 A.U.19	3 2
	5	Student is able to use the scientific sources as a help in clinical issues	A.U.21; A.U.23; B.U.20	3
Competences:	1	Student is able to formulate responsible clinical decisions based primarily on the animal welfare but in respect to the owner's expectations	KS.1; KS.2; KS.6; KS.7; KS.9 KS.3	3 2
	2	Student formulates the opinions understanding the onset of the disease, clinical appearance and therapeutic process in the context of normal and abnormal immune functions	KS.4; KS.5; KS.6; KS.8	3
	3	Student is prepared to formulate opinions based on accumulate knowledge, following the consultation with other members of veterinary team and is able to share the competencies with veterinary team and the animal's owner	KS.2; KS.4; KS.5; KS.6; KS.7; KS.8; KS.9 KS.3	3 2
	4	Student is aware of the necessity of constant education using scientific sources	KS.4; KS.5; KS.6; KS.7; KS.8	3
Objectives of the module required to obtain learning effects:	The main goal is to provide students with information about pathogenesis, diagnostics and treatment of the most common immune mediated diseases in domestic animals and to get students familiar with the general rules of diagnostic and treatment strategies in these diseases.			
Assessment methods:	Attendance to the seminars is mandatory, student can be absent on 20% of seminars or according to the current academic regulations. The final test consists of 15 questions (one choice test, 1 point per correct answer), to pass student must collect 8 points. Retake is for students who failed or could not attend the first term. Both terms have the same form. The final grade is based on the final test results (15 points), according to the scale: 0-7 failing grade (2), 8-9 passing grade (3), 10-11 passing plus grade (3.5), 12-13 good grade (4), 14 good plus grade (4.5), 15 excellent grade (5) In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.			
Detail description of assessment methods;	No extra assessment methods are anticipated.			
Formal documentation of learning outcome:	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:	The final grade is based on the final test results (15 points), according to the scale: 0-7 failing grade (2), 8-9 passing grade (3), 10-11 passing plus grade (3.5), 12-13 good grade (4), 14 good plus grade (4.5), 15 excellent grade (5)			
Teaching base:	Lecture facilities and laboratories of the Faculty of Veterinary Medicine			
Mandatory and supportive materials:	<ol style="list-style-type: none"> <li>1. Veterinary Immunology, Ian R. Tizard, 10th ed. Saunders, 2017</li> <li>2. Pathologic Basis of Veterinary Disease, James Zachary, Mosby 2016</li> <li>3. Case studies in Veterinary Immunology, Gershwin Laurel, Garland Publishing, 2017</li> <li>4. Clinical Immunology of the Dog and Cat, Michael J. Day, CRC Press, 2011</li> <li>5. Equine Clinical Immunology, M. Julia B. Felipe (Editor), Wiley Blackwell, 2016</li> </ol> Relevant scientific publications, including those of the module coordinator.			
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:	<b>24 h</b>
Total ECTS points, accumulated by students during contact learning:	<b>1 ECTS</b>