

Module code	M_WE_SEM5 DIAGN 1
Field of study	Veterinary medicine
Module name, also the name in English	Clinical and Laboratory Diagnostics 1 Diagnostyka kliniczna i laboratoryjna 1
Language of instruction	English
Module type	obligatory
Level of studies	Long-cycle master's degree studies
Form of study	Full-time
Year of study in the field of study	III
Semester of study in the field of study	V
ECTS credits, divided into contact/non-contact hours	6 (3.1/2.9)
Academic title/degree, name of the person responsible for the module	Dr hab. Marcin Szczepanik
Unit teaching the module	Department of Clinical Diagnostics and Veterinary Dermatology
Module objective	The aim of the module is to teach students methods of safe handling of animals, methods of general and detailed clinical studies concerning individual animal species (companion animals, livestock and horses) and basic analytical methods. The student is expected to learn clinical concepts and master skills related to clinical study and laboratory diagnosis according to the programme
The learning outcomes for the module include a description of the knowledge, skills and social competences that the student will gain after completing the module.	Knowledge:
	K1. Student has the knowledge of how and why to take a history and how to handle animals during a clinical examination
	K2. Student knows how to properly conduct an animal description, perform a physical examination of the general and detailed examination of the various systems in companion animals (and integumentary system in livestock and horses).
	Skills:
	S1. Student is able to ask purposeful questions when taking history and obtain information from the animal owner and make a description of an animal
	S2. Student is able to carry out clinical study of the body, respiratory, circulatory, digestive, locomotor, nervous and genitourinary systems of companion animals (and integumentary system in livestock and horses).
	Social competences:
	C1. Student is able to adapt the questions, when taking history, to the mind and emotional state of the animal owner
	C2. Student knows the principles concerning the ethical treatment of animals during examination
C3. Student is able to cooperate with other veterinarians while performing professional duties	
Prerequisites and additional requirements	-

Module curriculum:

**Practical classes:**

Principles for handling animals during the examination and methods of taming dogs and cats. Performing descriptions of animals. Method of taking history regarding health and living conditions. Ability to assess the condition of the animal. Ability to perform a physical general examination including assessment of habitus, examination of mucous membranes of natural body orifices, examination of lymph nodes, examination of internal body temperature, examination of respirations, examination of pulse rate. Performing examination of integumentary system. Performing examination of the skin and its appendages. Performing examination of the epidermis and dermis. Performing examination of the ear shell and external auditory canal.

Performing examination of the respiratory system in companion animals (examination of the upper respiratory tract - around the nasal orifices, around the nose, paranasal sinuses, larynx, trachea, assessment of coughing. Performing chest examination, assessment of dyspnoea. Performing topographical and comparative auscultation, assessment of physiological and pathological respiratory murmurs.

Performing cardiovascular examination in companion animals. Performing examination of the heart, palpation, determination of the cardiac attenuation field, evaluation of heart sound. Performing examination of peripheral vessels: arteries and veins.

Performing examination of the digestive system of dogs and cats. Performing appetite and fluid deprivations tests. Method of food and water intake. Performing examination of the oral cavity and oesophagus. Performing examination of the abdominal cavity. Performing examination of liver and spleen. Analysing stool.

Performing examination of the genitourinary system in companion animals: external examination of the kidney area. Performing examination through the abdominal cavity in dogs and cats: kidneys, ureters, bladder, urethra. Urinary excretion: amount, frequency, method. Bladder catheterisation. Performing examination of external genital organs.

Performing examination of the locomotor and nervous system in companion animals. Performing examination of the locomotor system: bones, joints, muscles, tendons, behaviour of animal and disturbance of consciousness; assessment of exteroceptive and interoceptive sensation; assessment of sensory capacities.

Performing examination of locomotor performance: state of muscle tone, muscular efficiency, contractions, abnormal movements and positions, nerve and muscle excitability, examination of exteroceptive and interoceptive reflexes.

**Lectures**

Basic terms

Clinical examination methods

Medical procedure

Principles for taking history from the animal owner

Basic physical examination, habitus, mucous membranes, natural body openings, lymph nodes.

Measurements of temperature, respiratory rate, physiological values, fever patterns

Performing examination of the integumentary system, discussion of epidermal abnormalities, hair density, evaluation of lesions and pruritus

Performing examination of the respiratory system in companion

<p>List of core and supplementary literature</p>	<p>Core literature:  Taylor S.M.: Diagnostic and therapeutic procedures Elsevier  Baumgartner W.: Clinical diagnostics of animals Elsevier  Marek J., Mocsy J.: Clinical diagnostics of internal diseases of animals  Mocsy J.: Veterinary clinical diagnostics  Mayer D., Harvey D., Laboratory diagnostics in veterinary medicine Edra Urban &amp; Partner  Supplementary literature:  Kelly W. R., Diagnostic clinique veterinaire. Libraire Maloine SA Editour, 1971.  Gunther M., Klinische Diagnostik unter besonderer Berucksichtigung der Anesthesiologie. Hirzel Verlag Leipzig 1979.  Speirs V.: Clinical examination of horses. Saunders company. 1997.  Lorenz M., Cornelius L.: Small animal medical diagnosis. Lippincott company, 1993.</p>
<p>Planned forms/activities/teaching methods</p>	<p>The course involves the following didactic methods: lecture, demonstration of research and diagnostic methods, classes with multimedia presentations and practical classes with animals and on manikins in the Department of Internal Medicine</p>

<p>Verification methods and ways of documenting the achieved learning outcomes.</p>	<p>K.1 Credit for test Single-choice test graded according to the rules of verification of learning outcomes.</p> <p>W.2. Credit for test Single-choice test graded according to the rules of verification of learning outcomes.</p> <p>S. 1. Credit for practical classes</p> <p>S.2. Credit for practical classes</p> <p>C. 1. Credit for tests and practical classes</p> <p>C 2. Credit for tests and practical classes</p> <p>C 3. Credit for tests and practical classes</p> <p>As part of the module in the 5th semester, students are required to get three credits</p> <ol style="list-style-type: none"> <li>1. For general physical examination</li> <li>2. For examination of the body and respiratory and circulatory systems of companion animals</li> <li>3. For examination of the genitourinary system, nervous system and locomotion of companion animals</li> </ol> <p>Each examination consists of two parts</p> <ol style="list-style-type: none"> <li>A. Practical examination - with a patient. As part of the practical examination, each student draws 3 questions on the performance of specific activities concerning the clinical examination. The evaluation is made on the correctness of the examination and its proper interpretation</li> <li>B. Theoretical examination in the form of single-choice test graded according to the verification of learning outcomes for students of Faculty of Veterinary Medicine</li> </ol> <p>The grade for credits 1,2,3 is calculated as the arithmetic mean of parts A and B</p> <p>In the case of a failing grade, a corrective oral assessment is organised: student has to answer 3 randomly drawn questioned.</p> <p>The final grade is calculated as the arithmetic mean of 3 credits 1,2,3.</p> <p><u>Forms of documenting the achieved learning outcomes:</u> archiving test examinations, academic teacher's register, examination minutes.</p>
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ECTS credits	CONTACT HOURS			
		Hours	ECTS credits	
	lectures	30	1,2	
	auditing exercises	10	0,4	
	Laboratory classes	20	0,8	
	Component grades/retake tests	12	0,48	
	consultations	5	0,22	
	<b>TOTAL contact hours</b>	<b>77</b>	<b>3,1</b>	
	NON-CONTACT HOURS			
	preparation for classes	30	1,2	
	literature study	30	1,2	
	preparation for credits	13	0,5	
	<b>TOTAL non-contact</b>	<b>73</b>	<b>2,9</b>	
The workload of activities that requires direct participation of an academic teacher	Lecture attendance – 30 hours Class attendance – 30 hours Consultation attendance – 5 hours Test and examination attendance – 12 hours			
Relation of module learning outcomes to course learning outcomes.	K.1. B.W4 +, B.W5 ++. B.W6.++ K.2 B.W4+. B.W5. +++, B.W6.++ S.1 B.U1 +. B.U2+++, B.U5 ++ S.2 B.U1 + B.U3 +++. C.1 K2++ K3++ C.2.K2++ C.3. K7++ K9+++			
Elements and values affecting the final grade	The final grade is calculated as the arithmetic mean of 3 credits 1,2,3. One unexcused absence from classes (2 hours) is allowed.			