

Module code	M_WE_SEM11 PW 11/2I DIAG ENDO
Field of study	Veterinary medicine
Module name	Endoscopic diagnostics Diagnostyka endoskopowa
Language of instruction	English
Module type	elective
Level of studies	Long-cycle Master's degree programme
Mode of study	Full-time
Year of study in the field of study	VI
Semester of study in the field of study	XI
ECTS credits, divided into contact/non-contact hours	1 (0.6/0.4)
Academic title/degree, name of the person responsible for the module	dr. n. vet. Krzysztof Buczek
Unit teaching the module	Department of Epizootiology and Clinic of Infectious Diseases
Module objective	Providing students with knowledge regarding the rationale for performing endoscopic examinations, indications based on history, clinical examination, and laboratory and imaging diagnostics. Teaching how to perform procedures safely. Principles of evaluation of organs under study and indications for diagnostic sampling will be presented. The material that will be presented to students is intended to broaden their knowledge of the most common diseases of individual systems and develop their manual skills in the use of specialized equipment: videogastroscope, videobronchoscope, rigid optics and fiberscopes. The course will include gastroscopy, bronchoscopy, rhinoscopy, otoscopy, and cystoscopy procedures in various animal species.
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. Knows how to gather and evaluate information from the owner, analyze the results of previous diagnostic studies, and make a decision on the need for an endoscopic examination based on this information.
	K2. Is knowledgeable about minimally invasive techniques in veterinary medicine and is aware of the ongoing development of these techniques and their benefits to the patient.
	K3. Has knowledge of the latest capabilities of endoscopic diagnostics and the performance of minimally invasive procedures.
	Skills:
	S1. Knows how to select anesthesia for the endoscopic procedure being performed to ensure adequate analgesia for the animal.
	S2. Is able to select the appropriate method of endoscopic diagnostics to make the diagnosis as quickly as possible and limit adverse effects on the patient.
	Social competences:
C1. Is able to perform the endoscopic procedure to make the correct diagnosis.	

	<p>C2. Selects the most beneficial solutions for the patient.</p> <p>C3. Is held responsible for preparing the test result and is able to discuss it and explain the results to the owner.</p> <p>C4. Understands the limitations of endoscopic techniques and puts the patient's welfare first;</p> <p>C5. Is able to lead the team work in order to ensure the best possible efficiency of the procedures performed and to ensure safety;</p>
Prerequisites and additional requirements	According to the sequence of subjects
Module programme content	<p>Indications for endoscopic examination and required additional tests, preparation of the patient for the procedure. Structure and operation of endoscopes;</p> <p>Rhinocopy - examination technique, nasal structure and areas available for examination, most common lesions.</p> <p>Bronchoscopy - examination technique, normal images and the most common conditions found.</p> <p>Gastroscopy - examination technique, normal structure and pathological states, macroscopic evaluation, assessment of organ structures.</p> <p>Cystoscopy - examination technique, the most common pathological conditions.</p> <p>Endoscopic examination in livestock - discussion of differences in examination technique;</p> <p>Follow-up examinations and specimen collection technique (smears, BAL, biopsies).</p> <p>Methods of foreign body removal.</p> <p>Students will become familiar with advances in knowledge of minimally invasive procedures and global trends in the discipline.</p> <p>Practical performance of endoscopic procedure: gastroscopy, bronchoscopy, rhinocopy, otoscopy and cystoscopy in various animal species.</p>
List of core and supplementary literature	<ol style="list-style-type: none"> 1. Tams T.: Small Animal Endoscopy, Elsevier, 1998. 2. McCarthy T. C.: Veterinary Endoscopy for the Small Animal Practitioner, Elsevier, 2007. 3. Slovis N.M.: Atlas of Equine Endoscopy Mosby, 2004. 4. Scientific papers
Planned forms/activities/teaching methods	Multimedia presentations, films and photos from procedures, demonstrations of specialized equipment, discussion, practical classes - participation in procedures, discussion of clinical cases.

Verification methods and ways of documenting the achieved learning outcomes.	<p>K - Oral assessment based on the answers to 5 questions. A correct answer to 3 questions, which represents 60%, is required to obtain a positive grade. Students may earn 2 points per question. Evaluation criteria: 0 - 5 grade 2 6 grade 3 7 grade 3+ 8 grade 4 9 grade 4+ 10 grade 5 S - Practical credit for equipment operation. 5 questions to answer; a correct answer to 3 questions, which represents 60%, is required to obtain a positive grade. Grading scale as above: C - participation in discussion, answering questions at the beginning of each laboratory class, written colloquia. A student must not have more than 1h of absence from theory classes.</p>																													
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Relation of module learning outcomes to major learning outcomes	<p>K1. WE_W19 +++ K2. WE_W18 ++ K 3. WE_W21 ++; WE_W18 +++ S1. WE_U24 + S2. WE_U20 ++ C1. WE_K1 +++ C2. WE_K2 ++ C3. WE_K5 ++ C4. WE_K1 ++; K13 ++ C5. WE_K11 +++</p>																													
Elements and values affecting final grade	<p>Final grade: Written credit - weighting of 40%. Oral practical assessment - weighting of 40% Participation in a minimum of 3 practical procedures - weighting of 20%</p>																													