Module code	M_WE_SEM11 PW 1J/2J TOM COMP
Field of study	Veterinary medicine
Module name, also the name in English	Computed tomography in clinical practice
	Tomografia komputerowa w praktyce klinicznej
Language of instruction	English
Module type	Elective
Level of studies	Long-cycle Master's Degree studies
Mode of study	full-time
Year of study in the field of study	V
Semester of study in the field of study	XI
ECTS credits, divided into contact/non-contact hours	1 (0.64/0.36)
Academic title/degree, name of the person responsible for the module	dr. n. vet. Anna Łojszczyk
Unit teaching the module	Laboratory of Radiology and Ultrasonography
Module objective	Becoming familiar with modern diagnostic imaging modalities that are now among the essential diagnostic procedures. Mastery of theoretical knowledge and practical skills in computed tomography to enable veterinary practice according to effective standards
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:
	W1. Knows the principles of tomographic image formation.
	W2. Has an understanding of the uses and benefits of CT scans.
	Skills:
	U1. is able to interpret CT images and diagnose small animal diseases using CT scans.
	Social competences:
	K1. Is ready to accurately identify facts, phenomena, processes and make prudent decisions.
	K2 Is ready to learn and hone its skills throughout its professional life
	K3. is aware of the responsibility towards humans and animals for the use towards them of ionizing radiation which is harmful to health
Prerequisites and additional requirements	
Module programme content	Radiation protection. Technical aspects of performing a CT scan. Patient's positioning for examination, examination performance, technical evaluation, artifacts. Basic principles of tomographic examination of small animals, normal images and in disease states. Head CT image: nasal cavity, frontal sinuses, oral cavity, mandible, maxilla, braces. Temporomandibular joints, eyeball, salivary glands, middle ear, inner and outer ear, lymph nodes. Throat, lymph nodes. Central nervous system, spine, spinal cord. Chest: lungs, trachea, bronchi, cardiovascular system, mediastinum, pleura, chest wall. Abdominal cavity: liver, spleen, pancreas, gastrointestinal tract. Genitourinary system, adrenal glands. Thoracic and abdominal lymph nodes. Joints. Contrast studies in computed tomography.

List of core and supplementary literature	1. Schwarz T., Saunders J. (Ed). Veterinary Computed Tomography. Wiley-Blackwell 2011. 2. Wisner E., Zwingenberger A.: Atlas of small animal CT and MRI. Wiley Blackwell 2011.		
Planned forms/activities/teaching methods	Practical presentation of research Independent interpretation of images Studying the recommended literature Discussion		
Verification methods and ways of documenting the achieved learning outcomes.	W - Credit for the semester is based on successful completion of one written assessment in the form of a test (10 choice questions) and obtaining a minimum of 60% correct answers. U - assessment of the ability to interpret tomographic images made by the instructor during the class K - participation in class discussion		
ECTS credits	**CONTACT**		
		Hours	*ECTS*
	Practical classes	15	0.52
	credit pass/resit exam	3	0.12
	TOTAL contact hours	21	0.64
	NON-CONTACT HOURS		
	preparation for classes	5	0.2
	learning from books	4	0.16
	TOTAL non-contact hours/ ECTS credits	**9**	**0.36**
	attendance at practical classes	15	0.52
	Consultations		
	colloquium in practical classes	3	0.12
	TOTAL with direct involvement of the teacher	**21**	**0.64**
Degree of achievement of major learning outcomes:	W1- B.W4 ++ W2- B.W4 ++ U1- B.U7 +++ K1- WE_K5 ++ K2- WE_K4++ K3- WE_K1++		
Elements and values affecting final grade	Final written test - 100%.		