Module code	M_WE_ SEM9 PW 1G/2G DIAG KON
Field of study	Veterinary medicine
Module name	Diagnostic Imaging in Horses
	Obrazowanie diagnostyczne u koni
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	IX
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. Agnieszka Pomorska-Zniszczyńska
Unit teaching the module	Department and Clinic of Internal Animal Diseases together with Department and Clinic of Animal Reproduction, Faculty of Veterinary Medicine, Lublin University of Life Sciences
Module objective	Familiarizing students with the specifics of diagnostic imaging, i.e. Ultrasound of joints, soft tissues and individual organs, X-ray of bones and joints and endoscopic techniques, in technical, diagnostic and legal terms
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 the health and safety regulations for working with horses and the health and safety regulations of the radiology laboratory, the legal aspects concerning responsibility for the examination performed
	K2. Knows the principles of X-ray and ultrasound examination of different parts of the horse's body and the rules of their interpretation
	Skills:
	S1. Is able to properly position the horse for x-ray examination and adjust equipment parameters to take x-ray images of specific body areas
	Social competences:
	C1. Is prepared to take responsibility for the decisions made in diagnostic imaging of horses
Prerequisites and additional requirements	according to the sequence of subjects

Module programme content	Health and safety rules in the radiology lab, health and safety rules in handling horses. Technical aspects of positioning a horse for x-ray examination. Preparing a patient for the ultrasound examination. Recognizing different physiological variants on x-ray images. Recognizing pathological lesions on x-ray of individual body parts. Recognizing pathological lesions in the ultrasound examination of different parts of the body. Recognizing disease symptoms related to the musculoskeletal system. X-ray examination of the joints and bones of the extremities. Ultrasound examination of tendons and joints of the extremities. X-ray and ultrasound examination of the spine. Radiologic examination of the horse's oral cavity. Diagnostic imaging of the respiratory, circulatory systems. Abdominal X-ray examination of foals. Abdominal ultrasound of foals and adult horses. Modern methods used in diagnostic imaging of horses.		
List of core and supplementary literature	1. Equine clinical radiology. Janet A. Butler, Christopher M. Colles, Sue J. Dyson, Svent E. Kold and Paul W. Poulos. 2 Veterinary Diagnostic Imaging: The Horses. Charles S. Farrow. 3. Equine Diagnostic Ultrasound. Virginia B. Reef.		
Planned forms/activities/teaching methods	Didactic methods: multimedia presentations, practical exercises, discussion, presentation and discussion of clinical cases.		
Verification methods	K - final course credit will be awarded on the basis of positive results obtained from 3 partial credits. Partial credits, in the form of written open-ended questions, will be given after every five topics. S - assessment of self-performed procedures (clinical examination, diagnostic procedure, treatment process proposal) by the instructor twice during the semester. C - participation in the discussion Grading scale according to Book of Education Quality		
ECTS credits		*Hours*	*ECTS*
	Practical classes	14	0.56
	colloquium in practical classes	1	0.04
	TOTAL contact hours	15	0.6
	preparation for classes	6	0.24
	learning from books	4	0.16
	TOTAL non-contact	10	0.4
The workload of activities that require direct participation of an academic teacher	attendance at practical classes	14	0.56
	colloquium in practical classes	1	0.04
	TOTAL with direct involvement of the teacher	15	0.6
Relation of module learning outcomes to major learning outcomes	K1-C.W3++ K2-B.W6++ S1-B.U7++ C1- K1+		

Elements and values affecting final grade	Partial credits (10% weighting)
	Credit pass for practical skills (20% weighting)
	Final credit (70% weighting)