Module name:		**Advanced imaging techniques**
ECTS:		**2**
Learning effects		Course outcomes:
Knowledge:	1	Student knows the physical interactions used in modern imaging methods
	2	Student knows the principles of preparing the patient for imaging under general anaesthesia
	3	Student knows the safety rules and procedures during the CT examination including the use of contrast media
	4	Student knows the safety rules and procedures during the MRI examination including the use of contrast media
	5	Student knows the rules and safety procedures during the PET / MR examination including the use of contrast media and radioactive isotopes
	6	Student knows the rules and safety procedures during angiographic, endoscopic and ultrasound examinations
Skills:	1	Student can conduct an interview and a clinical trial aimed at selecting or excluding the use of modern imaging techniques
	2	Student can choose a modern imaging technique for the clinical situation
	3	Student can prepare the patient for CT, MRI, PET / MR examination
	4	Student can assess the basic results of CT, MRI, PET / MR examination
	5	Student can use scientific sources in assessing the results of an imaging study
Competences:	1	Student is ready to choose a modern imaging technique based on specialist knowledge
	2	Student is aware of their knowledge and benefits of using modern imaging techniques
	3	Student is aware of the need for continuing education and is ready to deepen knowledge using scientific sources
	4	Student acquires competence in cooperation with a radiologist in the selection and evaluation of the results of modern imaging tests
Objectives of the module required to obtain learning effects:		The course aims to familiarize students with modern techniques for imaging physiological and pathological changes occurring in the body of companion animals, horses and experimental animals. Radiology as one of the most dynamically developing fields of medicine, offers veterinarians several modern tools that significantly expand diagnostic possibilities. The aim of the course is also to show students the amount and quality of data obtained in modern imaging, compared to traditional ultrasound and x-ray examination, and thus the scope of required knowledge and skills. The course aims to prepare students for the proper selection of modern imaging techniques and the possibility of clinical applications of CT, DE CT, MRI, DWI MRI, MRg-FUS, PET-MR and the highest class of angiography, endoscopy and ultrasound.
Assessment methods:		2 written tests, final written test