SYLLABUS OF THE EDUCATIONAL COMPONENT

VISUAL DIAGNOSIS IN VETERINARY MEDICINE

Specialty	**211 Veterinary medicine**	**mandatory discipline**	**optional**
Educational program	**veterinary medicine**	**faculty**	**veterinary medicine**
Educational level	**Master's degree**	**department**	**internal diseases and clinical diagnosis of animals**

Teacher

Kibkalo Dmytro Viktorovich

Higher education is a specialty veterinary medicine
Scientific degree - Doctor of Veterinary Sciences in the specialty 16.00.01 -diagnosis and animal therapy
Scientific title is a professor
Work experience is 20 years old
Indicators of professional activity on the subject matter of the course:

- • author of 3 monographs more than 30 publications;
- • experience of scientific work 23 years;
- • Co-author 7 publications in Scopus and Web of Science.
- • a participant of scientific conferences
- • Head of Research.

phone		**e-mail**	**diagnost_96@ukr.net**	**remote support**	**Moodle**

Natalia Alexandrovna Kravchenko is involved in teaching the discipline

GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT	
Aim	**Mastering the necessary theoretical knowledge and practical skills and skills in conducting radiological and ultrasound examination of animals and interpreting the results obtained in the previous diagnosis.**
Form	**lectures, practical classes, independent work, individual tasks.**
Detailing of learning results and forms of their control	• **the ability to abstract thinking, analysis and synthesis of information obtained by radiological, ultrasound or other visual research methods (GC1) / Individual interview.** • **Ability to use an X -ray apparatus, ultrasound scanner, otolararinoscope to conduct the necessary animal studies during professional activity. (SC2) / Practical tasks.** • **determine the essence of physicochemical and biological processes that occur in the body of animals in normal and by pathology based on the results of the study of the animal by visual methods of diagnosis (PLO3) / Practical tasks.** • **• collect anamnestic data for ultrasound or radiological examination of animals, make decisions on the choice of effective methods of diagnosis, treatment and prevention of animal diseases (PLO4) / Clinical cases, practical tasks.** • **• formulate conclusions on the effectiveness of selected methods and means of maintenance, feeding and treatment of animals, prevention (PLO7) Clinical cases, practical tasks.**
Scope and forms of control	**3 credits ECTS (90 hours): 14 hours of lectures, 30 hours laboratory-practical; 46 hours of independent classes, current control (2 sections); Final control - differentiated credit.**
Requirements of the teacher	**Performing tasks and mastering the course material**
Enrolment conditions	**«Free enrolment»**

COMPLEMENTS THE STANDARD OF EDUCATION AND EDUCATIONAL PROGRAM			
Competencies	**GC1 The ability to abstract thinking, analysis and synthesis SC2. Ability to use tools, special devices, devices, laboratory equipment and other technical means for carrying out the necessary manipulations during professional activity.**	**Program learning outcomes**	**PLO3. To determine the essence of physicochemical and biological processes that occur in the body of animals in normal and in pathology. PLO4. Collect anamnestic data during the registration and examination of animals, decide on the choice of effective methods of diagnosis, treatment and prevention of animal diseases**

STRUCTURE OF THE EDUCATIONAL COMPONENT					
Chapter 1. Veterinary X-ray					
Lecture 1	**Fundamentals of radiological diagnosis**	**LPC 1**	**Arrangement of a cabinet X -ray, obtaining a**		**X -ray properties and radiographic quality**

Lecture 2	Veterinary radiology		X -ray image		Viewing webinar interpretation of radiological studies Viewing Webinar interpretation of radiological examinations of the chest cavity Viewing Webinar interpretation of radiological examinations of the abdominal cavity Viewing Webinar interpretation of radiological studies of bone structures MRI and CT Diagnosis of small animals
Lecture 3	MRI and CT diagnostics	LPC 2	X -ray projections and patient stacking		
		LPC 3	X -ray examination of the heart and blood vessels		
		LPC 4	X -ray examination of the respiratory system	Independent work	
		LPC 5	X -ray examination of abdominal organs		
		LPC 6	X -ray examination of the spine, bones and joints		
		LPC 7	MRI and CT scan of small animals		
Chapter 2. Veterinary ultrasound					
Lecture 4	The principles of ultrasound	LPC 8	Arrangement of ultrasound of the cabinet, technique of ultrasound of small animals	Independent work	Viewing the webinar ultrasound of the bladder View the webinar ultrasound of the kidneys Viewing webinar ultrasound of the liver and spleen View the webinar ultrasound of the stomach and intestine Viewing the webinar ultrasound of the heart and vessels View the webinar ultrasound of the female reproductive system. Viewing webinar ultrasound of the male reproductive system View Webinar ultrasound of tumours
Lecture 5	Methods of ultrasound	LPC 9	Ultrasound of the bladder		
Lecture 6	Ultrasound of tumours and artefacts	LPC 10	Kidney ultrasound		
		LPC 11	Ultrasound of the liver and spleen		
		LPC 12	Ultrasound of the stomach and intestine		
		LPC 13	Ultrasound of the heart and blood vessels		
		LPC 14	Ultrasound of the reproductive system		
		LPC 15	Ultrasound of tumours		

BASIC LITERATURE AND METHODOLOGICAL MATERIALS

Basic literature	1. Thrall, D. E., & Robertson, I. D. (2022). Atlas of Normal Radiographic Anatomy and Anatomic Variants in the Dog and Cat-E-Book. Elsevier Health Sciences. 2. Muhlbauer, M. C., & Kneller, S. K. (2024). Radiography of the dog and cat: guide to making and interpreting radiographs. John Wiley & Sons. 3. Mattoon, J. S., & Nyland, T. G. (2020). Fundamentals of diagnostic ultrasound. Small Anim Diagnostic Ultrasound Mattoon, 3rd ed.; Mattoon, JS, Nyland, TG, Eds, 1-49.	Methodical support	Electronic course of Visual Diagnosis in Veterinary Medicine in Moodle

	4. Mattoon, J. S., Sellon, R. K., & Berry, C. R. (2020). Small animal diagnostic ultrasound e-book. Elsevier health sciences. 5. Ensminger, D., & Bond, L. J. (2024). Ultrasonics: fundamentals, technologies, and applications. CRC press.		

EVALUATION SYSTEM

SYSTEM		SCORE	ACTIVITY TO BE EVALUATED
Final assessment (differentiated credit, exam)	100-point ECTS (standard)	до 100	40% – final testing, 60% – student's ongoing work during the semester
Final assessment (non-graded)	100-point ECTS (standard)	до 100	100% – averaged score for all course sections
Section Assessment	Cumulative 100-point scale	до 30	30% – answers to test questions
		до 30	30% – performance on the independent study block
		до 40	40% – student activity during classes (oral responses)

NORMS OF ACADEMIC ETHICS AND CHARITY

All participants in the educational process (including those seeking education) must adhere to the code of academic integrity and the requirements prescribed in the provision "On academic integrity of participants in the educational process of DBTU": show discipline, education, respect each other's dignity, show kindness, honesty, responsibility.