

SYLLABUS OF THE EDUCATIONAL COMPONENT



METHODS OF LABORATORY CLINICAL DIAGNOSIS OF ANIMAL DISEASES

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

Vikulina Galina Viktorivna



Higher education – master of veterinary medicine, master of higher education pedagogy, master of philology
Scientific degree - candidate of veterinary sciences, specialty 16.00.01 - diagnosis and therapy of animals, doctor of philosophy

Academic title - associate professor

Work experience - 16 years

Indicators of professional activity on the subject of the course:

- author and co-author of about 60 scientific publications;
- co-author of the textbook "Veterinary Clinical Biochemistry" (2010)
- experience of scientific work of 19 years;
- participant of scientific and methodical conferences.

phone	0509125876	e-mail	vgv.14.vet@gmail.com	remote support	Moodle
-------	------------	--------	----------------------	----------------	--------

GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT	
Aim	formation of students' competencies to conduct and analyze laboratory and special diagnostic studies of biological fluids of animals of various species, to make informed decisions and evaluate the condition of animals according to laboratory indicators, to ensure the quality of laboratory studies.
Form	lectures, practical classes, independent work, individual tasks
Detailing of learning results and forms of their control	- Know and correctly use the terminology of veterinary medicine (PRN1) / individual and practical classes. - Determine the essence of physico-chemical and biological processes that occur in the body of animals in normal and pathological conditions (PRN3) / individual and practical classes - To establish a connection between the clinical manifestations of the disease and the results of laboratory studies (PRN5) / individual and practical classes
Scope and forms of control	3 ECTS credits (90 hours): 18 hours of lectures, 36 hours of laboratory classes; 36 hours of independent work, current control (3 chapters); final control - differentiated assessment.
Requirements of the teacher	timely completion of tasks, activity, teamwork
Enrollment conditions	according to the curriculum

COMPLEMENTS THE STANDARD OF EDUCATION AND THE EDUCATIONAL PROGRAM			
Competencies	ZK2. Ability to apply knowledge in practical situations. ZK7. Ability to conduct research at an appropriate level. ZK8. Ability to learn and master modern knowledge. ZK9. Ability to make informed decisions. SK1. The ability to establish the features of the structure and functioning of cells, tissues, organs, their systems and body apparatuses of animals of various classes and species - mammals, birds, insects (bees), fish and other vertebrates. SK2. The ability to use tools, special devices, devices, laboratory equipment and other technical means to carry out the necessary manipulations during professional activities. SK6. Ability to select, pack, fix and send samples of biological material for laboratory research. SK7. Ability to organize and conduct laboratory and special diagnostic studies and analyse their results.	Program learning outcomes	PRN1. Know and correctly use the terminology of veterinary medicine PRN3. Determine the essence of physico-chemical and biological processes that occur in the body of animals in normal and pathological conditions PRN5. To establish a connection between the clinical manifestations of the disease and the results of laboratory studies

STRUCTURE OF THE EDUCATIONAL COMPONENT					
Lecture 1	Clinical laboratory diagnostics in veterinary medicine	LPC 1	Organization of laboratory work and its modern equipment	Independent work	Methodology for determining the content of laboratory indicators Clinical and biochemical assessment of metabolic disorders in the animal body
Lecture 2	Emergency conditions and their clinical and biochemical assessment				
Lecture 3	Animal endocrinology	LPC 2	Methods of evaluating the results of clinical and biochemical research		
Lecture 4	Clinical and biochemical constellations	LPC 3	Planning of laboratory studies of various		

	in the diagnosis of animal diseases		biological fluids/ Examination of effusions, synovial fluid, cerebrospinal fluid and tissue samples		
Lecture 5	Laboratory examination of urine	LPC 4	Clinical and laboratory assessment of the animal's condition in case of shock, collapse, dehydration, ketoacidosis. Clinical and laboratory assessment of the condition of the animal in case of poisoning. Clinical and laboratory evaluation of the animal's condition in case of cardiovascular, respiratory, renal insufficiency and hepatic coma.		
Lecture 6	Laboratory profiles of small animal diseases	LPC 5	Interaction between the nervous and endocrine systems. Releasing factors: liberins and statins. Causes of endocrinopathies		
Lecture 7	Exotic animal laboratory diagnosis	LPC 6	Clinical biochemistry during dysfunction of the internal secretion of the pancreas, thyroid gland, adrenal glands, hypothalamus and pituitary gland.		
		LPC 7	Establishing the diagnostic value of laboratory tests. Diagnostic constellations of blood and urine laboratory parameters		
		LPC 8	Functional renal tests. Abnormalities in urine chemistry		
		LPC 9	Diagnosis by laboratory findings in small animals		
		LPC 10	Diagnosis by clinical signs and dynamic testing in small animals. Laboratory profiles of diseases of small animals		
		LPC 11	Interpretation of results from clinical pathologic testing of ferrets, rabbits, hystricomorph rodents, rats and mice. Interpretation of results from clinical pathologic testing of birds		
		LPC 12	Interpretation of results from clinical pathologic testing of snakes, lizards, amphibians, fish		

BASIC LITERATURE AND METHODOLOGICAL MATERIALS

Kaneko J., Harvey J., Bruss M. Clinical Biochemistry of Domestic Animals, 6th Edition. – Academic Press, 2008. – 928 p.

Squires E.James. Applied animal endocrinology. - CABI Publishing, 2003. – 252 p.

Atlas of comparative diagnostic and experimental hematology / Clifford Smith and Alfred Jarecki; foreword by Harold Tvedten. – 2nd ed. 142 p.

David L. Panciera, Anthony P. Carr. Endocrinology for the small animal practitioner. – Teton NeewMedia, 2005. – 195 p.

Kerr M.G. Veterinary laboratory medicine: clinical biochemistry and haematology. – John Wiley & Sons, 2008. – 386 p.

Harvey J.W. et al. Clinical biochemistry of pregnant and nursing mares //Veterinary clinical pathology. – 2005. – T. 34. – №. 3. – C. 248-254.

Kramer J.W., Hoffmann W.E. Clinical enzymology //Clinical biochemistry of domestic animals. – Academic Press, 1997. – C. 303-325.

Radostits O.M. et al. Veterinary clinical examination and diagnosis. – WB Saunders, 2000.

Newsholme, E. A. Functional biochemistry in health and disease / Eric Arthur Newsholme and Tony R. Leech, 2010. – 561 p.

Rosenthal, Miriam D. Miriam D. Rosenthal and Robert H. Glew. Medical biochemistry: Human metabolism in health and disease, 2009. – 439 p.

N. Mallikarjuna Rao. Medical Biochemistry. – New Age International Publishers, 2006. – 838 p.

ELECTRONIC RESOURCES

<http://moodle.btu.kharkiv.ua/course/view.php?id=425>

EVALUATION SYSTEM

	SYSTEM	POINTS	ACTIVITY THAT IS ASSESSED
Final assessment (different credit, exam)Final evaluation	100 ECTS points (standard)	up to 100	40 % - Final testing
			60 % - student's current work during the semester
Final assessment (non-differential credit)	100 points ECTS (standard)	up to 100	100 % - average grade for sections
Rating of section	100 points total	up to 30	30 % - answers to test questions
		up to 30	30 % - the result of mastering the block of independent work
		up to 40	40 % - student activity in class (oral answers)

NORMS OF ACADEMIC ETHICS AND INTEGRITY

All participants in the educational process (including students) must adhere to the code of academic integrity and the requirements stipulated in the regulation "On Academic Integrity of Participants in the Educational Process of SBTU": to demonstrate discipline, good manners, respect each other's dignity, show kindness, honesty, and responsibility.