

# SYLLABUS OF THE EDUCATIONAL COMPONENT



## INTERNAL DISEASES OF ANIMALS

speciality	211 Veterinary medicine	mandatory or optional	Mandatory
educational program	Veterinary medicine	faculty	Veterinary medicine
educational degree	master	department	Internal diseases and clinical diagnosis of animals

### Teacher

#### Matsenko Olena Victorivna



- Higher education - veterinary medicine specialty
- Scientific degree - candidate of veterinary sciences 16. 00. 01 - diagnosis and therapy of animals
- Academic title - Associate Professor of the Department of Internal Diseases and Clinical Diagnosis of Animals
- Work experience - 31 years
- Author of methodological instructions for laboratory, practical works from the course "Internal Diseases of Animals"
- Research internship "Poltava State Agrarian University"
- Participant of scientific and methodical conferences

phone	0974303676	e-mail	<a href="mailto:elenam57722@gmail.com">elenam57722@gmail.com</a>	distance support	Moodle <a href="http://moodle.btu.kharkiv.ua/course/view.php?id=407">http://moodle.btu.kharkiv.ua/course/view.php?id=407</a>
-------	------------	--------	--	------------------	---

## Sobakar Yuliia Viktorivna



**Higher education - veterinary medicine specialty**

**Scientific degree - candidate of veterinary sciences, specialty 16.00.01 - diagnosis and therapy of animals**

**Academic title - associate professor**

**Work experience - 22 years**

**Indicators of professional activity on the subject of the course:**

Author of methodological instructions for laboratory, practical works from the course "Internal Diseases of Animals"

Research internship "Poltava State Agrarian University"

- Participant of scientific and methodical conferences

phone

0935583055

e-mail

[Zemlanov1980@gmail.com](mailto:Zemlanov1980@gmail.com)

distance  
support

Moodle

<http://moodle.btu.kharkiv.ua/course/view.php?id=407>

## Ilyina Oksana Valeriivna



**Higher education - veterinary medicine specialty**

**Scientific degree - candidate of veterinary sciences, specialty 16.00.01 - diagnosis and therapy of animals**

**Work experience - 22 years**

**Indicators of professional activity on the subject of the course:**

Author of methodological instructions for laboratory, practical works from the course "Internal Diseases of Animals"

Research internship "Poltava State Agrarian University"

- Participant of scientific and methodical conferences

phone

0935583055

e-mail

[Zemlanov1980@gmail.com](mailto:Zemlanov1980@gmail.com)

distance  
support

Moodle

<http://moodle.btu.kharkiv.ua/course/view.php?id=407>

## GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT (DISCIPLINE)

<b>Aim</b>	providing applicants with thorough knowledge, skills and abilities to identify the main causes of diseases of internal organs and factors contributing to their occurrence; disease pathogenesis, delivery of diagnosis, analysis of changes in various indicators of biological fluids for the purpose of diagnosis of internal diseases, control of their development and treatment of sick animals for diseases of individual systems and organs, diseases caused by metabolic disorders, poisoning and diseases of young animals, poultry, small domestic animals and fur animals.
<b>Format</b>	lectures, practical classes, independent work, individual tasks, laboratory work, team work
<b>Form of control</b>	14 ECTS credits (420 hours): 56 hours of lectures, 118 hours of laboratory hours, 186 hours of independent work; 30 hours of medical history, current control (8 tests); final control - undifferentiated assessment, medical history, exam.
<b>Requirements</b>	timely completion of laboratory and practical tasks, activity, teamwork
<b>Enrollment conditions</b>	according to the curriculum

## COMPLIANCE WITH THE STANDARD OF EDUCATION AND THE EDUCATIONAL PROGRAM

<b>Competencia</b>	<p>GC1 Ability to abstract thinking, analysis and synthesis</p> <p>GC2 Ability to apply knowledge in practical situations</p> <p>GC7 Ability to conduct research at the appropriate level</p> <p>GC9 Ability to make informed decisions</p> <p>SC2 Ability to use tools, special devices, instruments, laboratory equipment and other technical means to carry out the necessary manipulations during professional activities</p> <p>SC 3 Ability to comply with the rules of labor protection, asepsis and antiseptics during professional activities.</p> <p>SC 4 Ability to conduct clinical studies in order to formulate conclusions about the condition of animals or establish a diagnosis</p> <p>SC 6 Ability to select, pack, fix and send samples of biological material for laboratory research</p> <p>SC 7 Ability to organize and conduct laboratory and special diagnostic studies and analyze their results</p> <p>SC 8. Ability to plan, organize and implement measures to treat animals of different classes and species, sick with non-communicable, infectious and invasive diseases.</p> <p>SC 13. Ability to develop strategies for the prevention of diseases of various etiologies.</p> <p>SC 16. Ability to protect the environment from pollution by livestock waste, as well as materials and means for veterinary purposes.</p>	<b>Program learning outcomes</b>	<p>PLO 1 Know and correctly use the terminology of veterinary medicine</p> <p>PLO 2 Use information from domestic and foreign sources to develop diagnostic, treatment and business strategies</p> <p>PLO 3 Determine the essence of physico-chemical and biological processes that occur in the body of animals in normal and pathological conditions</p> <p>PLO 4. Collect anamnestic data during registration and examination of animals, make decisions on the choice of effective methods of diagnosis, treatment and prevention of animal diseases.</p> <p>PLO 5 Establish a connection between the clinical manifestations of the disease and the results of laboratory tests</p> <p>PLO 6 Develop quarantine and health measures, methods of therapy, prevention, diagnosis and treatment of diseases of various etiologies</p> <p>PLO 7 Formulate conclusions regarding the effectiveness of selected methods and means of keeping, feeding and treating animals, prevention of contagious and non-contagious diseases, as well as production and technological processes at enterprises for keeping, breeding or exploiting animals of various classes and species</p> <p>PLO 15 Know the rules of storage of various pharmaceuticals and biological preparations, ways of their enteral or parenteral use, understand the mechanism of their action, interaction and complex action on the animal body.</p>
--------------------	---	----------------------------------	--

# STRUCTURE OF EDUCATIONAL COMPONENT

## Chapter I Basics of general prevention and therapy

<b>Lecture 1</b>	Introduction to the course of internal diseases of animals. Definition of the discipline, the role of veterinary science and practice in the prevention and treatment of internal diseases of animals; direct tasks facing students when studying the discipline	<b>LPL 1</b>	Introduction to the course of internal diseases of animals. Peculiarities of dispensation of productive animals. Methods of studying the discipline, tasks of the department. Requirements for students. Safety rules when working with animals. Analysis of production indicators, analysis of maintenance and feeding of animals. Peculiarities of dispensation of productive animals.	<b>Self work</b>	Examination of calves in the maternity ward. Methodology of dispensation of horses, pigs, sheep. Methods of therapy: antidote therapy, probiotic therapy, reflex therapy, laser and ultrasound therapy. General prevention of internal diseases of animals. Analysis of keeping and feeding animals.
<b>Lecture 2</b>	Basics of general prevention of internal diseases: general prevention of IDA. Planning of prevention measures and their control. Dispensaryisation, its essence and meaning, stages. Health monitoring of productive animals.	<b>LPL 2</b>	Carrying out the clinical stage of dispensation. Development of clinical research methods during dispensation in farm conditions. Formation of reference groups of animals and their research. Obtaining biological fluids (blood, urine, milk).		
		<b>LPL 3-5</b>	Laboratory studies during dispensation of animals. Study of clinical (erythrocytes, leukocytes, hemoglobin, ESR, leucoformula) and biochemical indicators of blood (total protein, calcium, phosphorus, carotene, alkaline reserve. Determination of physical and biochemical composition of urine, detection of ketone bodies in milk. Interpretation of results)		

		<b>LPL 6-7</b>	Compilation of recommendations on planned prevention of internal diseases based on dispensary materials. Analysis of the results of clinical and laboratory animal studies. Appointment of general and special preventive measures. Compilation of the act of dispensary.		
<b>Lecture 3</b>	Basics of general therapy. Basic rules of therapy, its types. Etiotropic and pathogenetic therapy: essence and varieties.	<b>LPL 8</b>	Basics of general therapy. Enteral and parenteral methods of drug administration. Types of therapy (etiotropic, substitute, symptomatic). Enteral methods of administration of medicinal substances (through the mouth using a probe, etc.). Practicing techniques of therapeutic techniques. Working out the methods of applying different types of therapy to animals, studying their effects on the animal's body..		
<b>Lecture 4</b>	Methods of therapy: non-specific stimulating therapy: varieties, mechanism of action, application in veterinary medicine, symptomatic therapy.	<b>LPL 9</b>	Methods of general pathogenetic therapy. Non-specific stimulating therapy. Practicing the technique of protein therapy, hemotherapy, tissue therapy). Working out of novocaine blockades in internal diseases		

Lecture 5	Therapy methods: replacement therapy, vitamin, enzyme, hormone therapy, use of mineral substances. Diet therapy, physiotherapy (light-, electro-, mechanical-, thermo-, hydrotherapy)..	LPL 10-11	Physiotherapy: the technique of using water procedures, thermo- and mechanotherapy Washing of the rumen in cattle, washing of the stomach, bladder, intestines. Compresses, paraffin and ozokerite therapy. Massage of individual parts of the body.		
		LPL 12	Physiotherapy. Phototherapy. The use of visible, thermal rays for the treatment and prevention of internal diseases of animals. The use of ultraviolet rays for the treatment and prevention of internal diseases of animals.		
		LPL 13	Physiotherapy. Methods of electro treatment. Techniques of galvanization, electrophoresis, electrostimulation, UHF therapy.		
		LPL 14	Basics of general prevention and therapy. Solving test tasks		
Chapter II. Diseases of the cardiovascular system					
Lecture 6	Diseases of the heart and blood vessels General symptoms of cardiovascular failure. Diseases of the pericardium: pericarditis and hydropericardium.	LPL 15	Diseases of the pericardium (pericarditis, traumatic pericarditis, hydropericardium). Clinical studies of animals with lesions of pericardium. Provision of medical assistance; the technique of administration of medicinal substances in diseases of the heart and blood vessels.	Self work	The main symptoms of cardiovascular failure. Myocardiofibrosis, heart enlargement, vascular thrombosis. Differentiation of pericarditis and hydropericardium. Heart defects.

Lecture 7	Diseases of the myocardium, endocardium and blood vessels: Diagnosis, therapy and prevention.	LPL 16	Myocardial diseases Clinical studies of animals with lesions of myocardium. Provision of medical assistance; technique of administration of medicinal substances for myocarditis, myocardial dystrophy, heart attack.		
		LPL 17-18	Diseases of the endocardium, blood vessels Development of diagnostic and therapeutic measures for lesions of the endocardium and blood vessels. Laboratory diagnosis of diseases of the cardiovascular system.		
		LPL 19	Diseases of the cardiovascular system. Development of methods of diagnosis and treatment of animals for cardiovascular pathology in farm conditions. Appointment of curators.		
		LPL 20	Diseases of the cardiovascular system. Solving situation situations..		
		LPL 21	<i>Diseases of the cardiovascular system. Solving test tasks</i>		
		LPL 22	Final lesson		
		Chapter III Diseases of the respiratory system			
Lecture 8	Respiratory diseases. The main symptoms of respiratory diseases. Diseases of the upper respiratory tract: rhinitis, sinusitis, frontitis, laryngitis, bronchitis.	LPL 23	Respiratory diseases. Research and treatment of animals for diseases of the upper respiratory tract (rhinitis, laryngitis, tracheitis, bronchitis).	Self work	Etiology, pathogenesis, diagnosis, treatment and prevention of the following diseases: nosebleeds, swelling of the larynx and lungs, pulmonary hemorrhage, hydro and pneumothorax
Lecture 9	Pneumonia: classification, diagnosis and treatment of pneumonia	LPL 24	Respiratory diseases. Research and treatment of		



	(bronchopneumonia, croupous, atelectatic, hypostatic, aspiration, metastatic). Lung diseases of a non-inflammatory nature (alveolar and interstitial emphysema). Diseases of the pleura (pleurisy, hydrothorax).		animals for inflammatory diseases of the lower respiratory tract (pneumonia, pleurisy). Research and treatment of animals for non-inflammatory diseases of the lower respiratory tract (alveolar and interstitial lung emphysema, bronchial asthma).		
		LPL 25	Respiratory diseases. Carrying out laboratory tests of blood and their interpretation for diseases of the organs of the respiratory system..		
		ЛПЗ 26	Respiratory diseases. Development of diagnostic and treatment measures for diseases of the respiratory organs of animals in farm conditions. Appointment of curators..		
		LPL 27	Diseases of respiratory organs. Solving industrial situations.		
		LPL 28	Diseases of the organs of the respiratory system. Solving situational tasks.		
Chapter IV Diseases of the organs of the digestive system in animals					
Lecture 10	Diseases of the mouth, pharynx, esophagus. General information about diseases of the digestive system. Classification of diseases of the digestive system. Diseases of the mouth, pharynx and esophagus.	LPL 29	Diseases of the mouth, pharynx and esophagus. Studying diagnostic techniques and methods of treatment for diseases of the mouth, pharynx and esophagus in animals. Rinsing and lubrication of the mucous membranes of the mouth, introduction of antimicrobial ointment into	Self work	Paralysis of the pharynx. Inflammation, paralysis, narrowing, dilatation and spasms of the esophagus. Inflammation of the ileum (Hoflund's syndrome). General therapy of diseases with colic syndrome. Mechanical intestinal obstruction. Mechanical obstruction: twisting and twisting of the intestines, entrapment, intussusception and displacement of the intestines.



			the pharynx in case of pharyngitis.		
<b>Lecture 11</b>	Diseases of ruminants' stomachs. Peculiarities of ruminant digestion. Classification of stomach diseases. Congestive dystonia of the forestomach. Acidosis, paresis of rumen.	<b>LPL 30</b>	Diseases of the forestomach and abomasum. Practical assimilation of methods of diagnosis, differential diagnosis, treatment and prevention of diseases of the forestomach (hypo-, atony of the rumen), Ruminography, gastric lavage.		
<b>Lecture 12</b>	Bloat of the rumen: simple and foamy. Traumatic reticulitis and its complications. Diseases of the omasum and abomasum. Clogging of the omasum. Displacement, expansion and rotation of the abomasum.				
<b>Lecture 13</b>	Diseases of the stomach and intestines. Classification of diseases of the stomach and intestines. Gastritis, gastroenteritis, enterocolitis, peptic ulcer.	<b>LPL31</b>	Diseases of the stomach and intestines in monogastric animals. Development of diagnostic and treatment methods for stomach and intestinal dyspepsia in animals, gastritis, gastroenteritis and peptic ulcer disease in animals. Research of gastric juice in different species of animals. Examination of blood and feces		
<b>Lecture14</b>	Diseases of the stomach and intestines with colic symptom complex. Classification. Stomach distension, enteralgia, intestinal flatulence. Dynamic (paralytic) and mechanical obstruction. Causes, treatment and prevention of paralytic dynamic obstruction in horses (hemostasis and coprostasis of the intestines); Mechanical obstruction (obturatoral ileus;	<b>LPL 32</b>	Diseases of the stomach and intestines with the symptom complex of colic. Diagnosis, features of treatment for certain types of colic: acute gastric dilatation, enteralgia. Development of methods of providing emergency first aid for colic horses..		
		<b>LPL 33</b>	Diseases of the stomach and intestines with the symptom complex of colic. Diagnosis,		

	hemostatic obstruction).		features of treatment for certain types of colic, hemostasis, coprostasis, intestinal flatulence, intestinal obstruction. Development of methods of providing emergency first aid.		
		<b>LPL 34</b>	Diseases of the stomach and intestines. Development of methods of diagnosis and treatment of horses with colic in farm conditions (equestrian school). Appointment of curators.		
		<b>LPL 35</b>	Diseases of the stomach and intestines. Solving situations.		
		<b>LPL 36</b>	<i>Diseases of the organs of the digestive system in animals</i> <i>Solving test tasks.</i>		

#### V course

### Chapter V Diseases of organs of the hepatobiliary system, pancreas and diseases of the urinary and nervous systems

<b>Lecture 15</b>	Diseases of the liver and biliary tract. Classification of liver diseases. Main syndromes in liver diseases. Hepatitis. Hepatodystrophy.	<b>LPL 37</b>	Diseases of the liver, biliary tract, and peritoneum. Clinical examination of animals with liver, biliary tract, and peritoneal diseases. Laboratory diagnostics (Weltman's test, total protein, and others). Decision-making in clinical case scenarios.	<b>Self work</b>	Syndromes for diseases of the liver and biliary tract. Liver abscesses, cirrhosis, liver amyloidosis. Ascites Pancreatitis. Pancreatic cyst, pancreatic tumors. Acute and chronic renal failure. Kidney abscess. Hydronephrosis. Neurogenic bladder dysfunction. Chronic hematuria of cattle. Hyperemia and ischemia of the brain, hydrocephalus of the ventricles of the brain. Meningoencephalitis, epilepsy, eclampsia. Stress syndrome, porcine stress syndrome, spongiform encephalopathy.
<b>Lecture 16</b>	Gallstone disease. Diseases of the peritoneum. Peritonitis. Ascites.				
<b>Lecture 17</b>	Kidney and urinary tract diseases. Main syndromes. Glomerulonephritis, pyelonephritis, nephrosis. Urocystitis.	<b>LPL 38</b>	Diseases of the kidneys and urinary tract. Diagnostics of renal diseases. Major renal syndromes in animals, urine		

Lecture 18	Kidney and urinary tract diseases Urolithiasis. Chronic hematuria of cattle. Diseases of the lower parts of the urinary tract..		collection for laboratory testing. Laboratory analysis of urine and blood in kidney and urinary tract diseases.		
Lecture 19	Diseases of the nervous system. Classification of diseases of the nervous system. Organic diseases of the brain and spinal cord and meninges (Hyperemia, ischemia, meningitis, meningoencephalitis). Functional nervous diseases (neurosis, epilepsy, eclampsia).	LPL 39	Diseases of the nervous system. Practical training in clinical diagnostic methods and treatment of organic and functional disorders of the nervous system. Clinical and laboratory diagnostics.		
		LPL 40	Practical training in diagnostic and treatment methods for animals with urinary and nervous system diseases under farm conditions.		
		LPL 41	Diseases of the hepatobiliary system, pancreas, urinary and nervous systems. Solving test questions and case-based clinical scenarios.		
Chapter VI Diseases of the blood system and the immune system					
Lecture 20	Diseases of the blood system. Classification of blood diseases. Anemias: posthemorrhagic, hemolytic and hypoplastic. Hemorrhagic diatheses: hemophilia, thrombocytopenia, hemorrhagic disease..	LPL 42	Diseases of the blood system. Practical training in clinical and hematological examinations in animals with blood disorders.	Self work	Classification of anemias, hemophilia, allergic diseases, drug and food allergies, immune deficiencies.
Lecture 21	Diseases of the immune system.	LPL 43	Diseases of the immune		

	<p>Characteristics of immunodeficiencies. Immunity to the introduction of pathogens of infectious and invasive diseases - as a cause of ID and AID.</p> <p>Allergic diseases (drug and food allergy).</p>		system: main clinical signs, diagnostics, and treatment of affected animals.		
		<b>LPL 44</b>	Diseases of the blood and immune systems. Laboratory diagnostic methods (clinical and biochemical blood analysis). Solving test questions and case-based clinical scenarios related to blood and immune system diseases.		

#### ***VI course***

### **Chapter VII Diseases caused by metabolic disorders, endocrine organs and skin. Poisoning of animals with fodder and feed additives**

<b>Lecture 22</b>	Ketosis of cows and sheep. Myoglobinuria. Obesity. Alimentary dystrophy.	<b>LPL 45</b>	Diseases caused by metabolic disorders. Study of clinical manifestations and laboratory methods of diagnosis of metabolic disorders.	<b>Self work</b>	Secondary osteodystrophy of cows, secondary osteodystrophy of bulls. An excess of selenium, fluorine, boron, molybdenum.
<b>Lecture 23</b>	Macroelementoses. Osteodystrophy, hypomagnesemia. Postpartum hypophosphatemia; Microelementosis, Iodine deficiency. Hypocobaltosis, hypocuprosis, Parakeratosis, deficiency of manganese, selenium. Hypovitaminosis Insufficiency of fat-soluble vitamins A, D, E, K. Vitaminosis of water-soluble vitamins of group B, C, etc				
<b>Lecture 24</b>	Diseases of endocrine organs. Diabetes and non-diabetes; Hypoparathyroidism, hypothyroidism; diffuse toxic goiter..	<b>LPL 46</b>	Diseases of endocrine organs in animals. Diseases of endocrine organs. Development of methods of diagnosis and treatment of certain diseases (diabetes and non-diabetes, hypoparathyroidism, hypothyroidism; diffuse toxic goiter). Laboratory diagnostics.		

<b>Lecture 25</b>	Diseases of endocrine organs. Diabetes and non-diabetes; Hypoparathyroidism, hypothyroidism; diffuse toxic goiter.	<b>LPL 47</b>	Skin diseases in animals. Working out the methods of diagnosis and treatment of certain diseases (allergic lesions (hives, ringworm, eczema); autoimmune skin diseases).		
<b>Lecture 26</b>	Poisoning by feed and feed additives.	<b>LPL 48</b>	Poisoning by feed and feed additives. Development of methods of diagnosis and treatment of certain types of food poisoning. Laboratory methods of diagnosis of fodder poisoning..		
		<b>LPL 49</b>	<i>Diseases caused by metabolic disorders, endocrine organs and skin. Poisoning of animals with fodder and feed additives. Solutions test tasks.</i>		
<b>Chapter VIII Diseases of young animals, poultry and fur animals</b>					
<b>Lecture 27</b>	Diseases of young animals.	<b>LPL 50</b>	Diseases of young animals. Classification. Development of methods of diagnosis and treatment of animals.	<b>Self work</b>	Hemolytic disease of the young. Bezoar disease of young. Hypoplastic anemia of young animals. Periodic tympany of calves. Apteriosis and alopecia of birds, aerocystitis, inflammation of the ox, alimentary gastritis, inflammation of the cloaca: principles of disease prevention: diagnosis and control Poisoning of birds, toxins. Diseases of fur animals: B-hypovitaminoses, steatitis, wetting, red-footedness, big-headedness, acute expansion of the stomach, liver dystrophy, urolithiasis, lactational exhaustion, allopecia.
<b>Lecture 28</b>	Diseases of poultry and fur animals.	<b>LPL 51</b>	Diseases of poultry and fur animals. Development of methods of diagnosis and treatment of poultry and animals.		
		<b>LPL 52</b>	<i>Diseases of young animals, poultry and fur animals. Solutions of test tasks.</i>		

## BASIC LITERATURE ANS ADDITIONAL MATERIALS

**Basic**

1. Large Animal Internal Diseases 5 th edition Bradford P. Smith. Elsevier, 2015. 2024 p.
2. The Merck Veterinary Manual, 11-th edition. Susan E. Aiello and Michael A. Moses.
3. Cardiology for Veterinary Technicians and Nurses Edward Durham Jr, 2017. 536 p.
4. Digestive Disorders in Ruminants, An Issue of Veterinary Clinics of North America: Food Animal Practice. Meredith L. Jones, Robert J. Kallan. Elsevier, 2018, 365 p.
5. Diagnostic Atlas of Renal Pathology. Agnes B. Fogo, Michael Kashkarian. Elsevier, 2021, 435 p.
6. Veterinary Neuroanatomy and Clinical Neurology. de Lahunta's. Elsevier, 2020. 324 p.
7. Hematology Techniques and Concepts for Veterinary Technicians. Greg L. Foit, Shannon L. Swist. John Wiley and Sons LTD, 2011. 254 p.
8. Veterinary Immunology. Ian Tizard. Elsevier, 2017. 453 p.
9. Color Atlas of Farm Animal Dermatology. Danny W. Scott. John Wiley and Sons LTD, 2018. 254 p.

**Additional**

1. Weinberger S.E. 2006. Presentation of the patient with pulmonary disease, p 22. In Weinberger SE (ed), Principles of pulmonary medicine. Saunders, Philadelphia, PA.
2. Pierce JA. 19980. Cough, p 317. In Blacklow RS (ed), MacBryde's signs and symptoms: applied pathologic physiology and clinical interpretation, ed 6. Lippincott, Philadelphia, PA.
3. Muran O. 2002. Cough, p 12. In Glauser FL (ed), Signs and symptoms in pulmonary medicine. Lippincott, Philadelphia, PA.
4. Robinson NE. 1986. Pathophysiology of coughing. Proc Am Assoc Equine Pract 32:291.
5. Cornelius LM. 2007. Coughing, p 207. In Lorenz MD, Cornelius LM (eds), Small animal medical diagnosis, ed 2. Lippincott, Philadelphia, PA.

1. Workbook for laboratory classes on the discipline "Internal diseases of animals. Module I" / Matsenko O. V., Mogilovsky V. M., Maslak Yu. V., et al. – Kh., 2022.- 87 p.
2. Workbook for laboratory classes on the discipline "Internal diseases of animals. Module II" / Matsenko O. V., Shchepetilnikov Yu. O., Mogilovsky V. M. et al. – Kh., 2022.- 34 p.
3. Workbook for laboratory classes on the discipline "Internal diseases of animals Module III" / Matsenko O. V., Shchepetilnikov Yu. O., Mogilovsky V. M. et al. – Kh., 2022.- 30 p.
4. Workbook for laboratory classes on the discipline "Internal diseases of animals. Module IV" / Matsenko O. V., Shchepetilnikov Yu. O., Mogilovsky V. M. and others - Kh., 2022.- 62 p.
5. Workbook for laboratory classes on the discipline "Internal diseases of animals. Module V" / Matsenko O. V., Shchepetilnikov Yu. O., Mogilovsky V. M. and others - Kh., 2022.- 67 p.
6. Workbook for laboratory classes on the discipline "Internal diseases of animals. Module VI" / Matsenko O. V., Shchepetilnikov Yu. O., Mogilovsky V. M. and others - Kh., 2022.- 35 p.
7. Workbook for laboratory classes on the discipline "Internal diseases of animals. Module VII" / Matsenko O. V., Shchepetilnikov Yu. O., Mogilovsky V. M. and others - Kh., 2022.- 34 p.
8. Workbook for laboratory classes on the discipline "Internal diseases of animals. Module VIII" / Matsenko O. V., Shchepetilnikov Yu. O., Mogilovsky V. M. and others - Kh., 2022.- 24 p.
9. Ilyina O. V., Matsenko O. V., Tymoshenko O. P., Maslak Yu. V., Shchepetilnikov Yu. O., Mogilovsky V. M. Methodological recommendations: Phytotherapy for diseases of the nervous and cardiovascular systems in animals: methodological recommendations. Kharkiv: DBTU, 2023 - 46 p.
10. Sobakar Yu.V., Matsenko O.V., Mogilovsky V.M., Shchepetilnikov Yu.O., Ilyina O.V., Furda I.V. Clinical and laboratory and special methods of research of dogs and cats for diseases of the endocrine system. Kharkiv, DBTU, 2024

To prepare for classes with the aim of more fully mastering the discipline, students can use the following electronic sites:

1. [www.consumer.gov.ua](http://www.consumer.gov.ua)
2. <http://www.who.int/en/>
3. <http://www.oie.int/> <https://veteriankey.com/noninfectious-diseases-of-the-gastrointestinal-tract/>
4. [https://www.youtube.com/watch?v=NQN2UvWKC0&ab\\_channel=Dr.Bestoonvet](https://www.youtube.com/watch?v=NQN2UvWKC0&ab_channel=Dr.Bestoonvet)
5. <https://goodhouse.com.ua/poradi/19274-zaxvoryuvannya-pechinki-u-sobak-simptomi-oznaki-prichini-likuvannya-diyeta-i-xarchuvannya-sobaki-pri-zaxvoryuvannyax-pechinki-likuvalnij-korm.html>
6. <http://dSPACE.nubip.edu.ua:8080/jspui/> <https://library.btu.kharkov.ua/> - <http://http://www.nbu.gov.ua/>

**ASSESSMENT SYSTEM****SYSTEM****SCORE****ACTIVITY THAT 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 SBU": show discipline, education, respect each other's dignity, show kindness, honesty, responsibility.