Ministry of Education and Science of Ukraine
Sumy National Agrarian University
Faculty of Veterinary Medicine
Department of Therapy, Pharmacology, Clinical Diagnostics and Biochemistry

MODULE SYLLABUS

Internal diseases of animals

(compulsory)

Implemented in the "Veterinary Medicine" Academic Program

Area of specialization 211 " Veterinary Medicine"

at the second (master 's) level of higher education

Sumy-2024

Author: _____ (signature) O.V. Musiienko candidate of veterinary sciences, associate professor

Considered, approved and approved at the meeting of the Department of Therapy, Pharmacology, Clinical Diagnostics and biochemistry	protocol from 05.06.2024 № 12 (signature) Oleksii Musiienko (surname, initials)

Agreed:

Guarantor of the educational program _____

Dean of the faculty where
the educational program is implemented _____ O. L.Nethiporenko

Work program review (attached) provided: _____

Methodist of the Department of Education Quality,
licensing and accreditation _____

Registered in the electronic database: date: 24.06. 2024

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Information on reviewing the work program (syllabus):

Academic year in which changes are made	The number of the appendix to the work program with a description of the changes	The changes have been reviewed and approved		
		Date and number of the minutes of the meeting of the department	Head of Department	Guarantor of the educational program

1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

<table>
<tr><td>1.</td><td>Name OK</td><td colspan="4">Internal diseases of animals</td></tr>
<tr><td>2.</td><td>Faculty / department</td><td colspan="4">Faculty of Veterinary Medicine; Department of Therapy, Pharmacology, Clinical Diagnostics and Biochemistry</td></tr>
<tr><td>3.</td><td>Status OK</td><td colspan="4">Obligatory</td></tr>
<tr><td>4.</td><td>Program / Specialty (programs), the component of which is OK for (to be filled in for mandatory OK)</td><td colspan="4">211 - veterinary hygiene, sanitation and examination</td></tr>
<tr><td>5.</td><td></td><td colspan="4"></td></tr>
<tr><td>6.</td><td>NRC level</td><td colspan="4">Level 7</td></tr>
<tr><td>7.</td><td>Semester and duration of study</td><td colspan="4">9, 10.</td></tr>
<tr><td>8.</td><td>Number of ECTS credits</td><td colspan="4">7</td></tr>
<tr><td rowspan="2">9.</td><td rowspan="2">The total number of hours and their distribution</td><td colspan="3">Contact work (classes)</td><td>Independent work</td></tr>
<tr><td>Lectures
4
2/2</td><td>Practical / seminar</td><td>Laboratory
12
6/6</td><td>194
82/112</td></tr>
<tr><td>10.</td><td>Language of instruction</td><td colspan="4">English</td></tr>
<tr><td>11.</td><td>Teacher / Coordinator of the educational component</td><td colspan="4">O.V. Musiienko candidate of veterinary sciences, associate professor</td></tr>
<tr><td>1 1.1</td><td>Contact Information</td><td colspan="4">aleksey_musya@ukr.net
0507388690</td></tr>
<tr><td>12.</td><td>General description of the educational component</td><td colspan="4">Internal diseases of animals play a major role and occupy a prominent place in the system of training veterinary medicine. The doctrine of internal diseases of animals forms medical thinking. The value of this exercise goes beyond the problem of prevention and treatment of internal diseases that the methods and means are quite widely used in other areas in eterynarnoyi medicine. The practical significance of the discipline "Internal diseases of animals" lies in the mass of these diseases, which occupy a predominant place in animal pathology, causing great economic damage.
The task of studying the discipline is to consolidate the material studied and students acquire skills in solving certain tasks, in mastering the necessary techniques, in the analysis of practical situations, phenomena, etc., in addition to general tasks, students must be equipped with skills and abilities. classes to acquaint them with the methods of scientific research and technical experiment. The study of the course is based on the generalization of the material with a philosophical inclination and the achievements of physics, chemistry, biology, genetics and practice with the use of modern methods of laboratory research.</td></tr>
<tr><td>13.</td><td>The purpose of the educational component</td><td colspan="4">During the study of the discipline, in the process of mastering theoretical knowledge from different sections of the discipline, acquaintance with modern methods of work adopted in industry laboratories, students of the second level acquire the following competencies :
Theoretical knowledge and skills will allow graduates of OS "Master" during professional activities to successfully solve practical problems of non-</td></tr>
</table>

		communicable pathology (patterns of occurrence and spread of diseases, features of their course, diagnosis and treatment, different groups in farms and clinics).
14.	Prerequisites for studying OK, the relationship with other educational components of OP	1. The educational component is based on EK Animal physiology Clinical diagnosis of animal diseases Veterinary pharmacology 2. The educational component is the basis for the following EK: Wind Mr. Arnie technology prevention of non-communicable animal diseases
15.	The policy of academic integrity	All tasks related to calculations, drawing up plans and registration of accounting documentation will have individual initial data. Violation of academic integrity in the study of EK " Internal Diseases of Animals " will be considered: academic plagiarism, academic fraud (copying, deception, publishing someone's work for their own), the use of electronic devices during the final control of knowledge. For violations of academic integrity of applicants education may beprosecuted to such academic responsibility : Academic plagiarism – grade 0, recompletion of the task . Academic fraud - cancellation of points ; repeated passage of evaluatingrepeated execution of non-self- performed work on new source data; The use of electronic devices Mr Eid a final control of knowledge - suspension of execution of work , score 0, re- passing the final control.
16.	Course link in Moodle	https://cdn.snau.edu.ua/moodle/course/view.php?id=3994

2. LEARNING RESULTS FOR THE EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH THE SOFTWARE LEARNING RESULTS

MLOs: On successful completion of the module the learner will be able to:	PLOs							How assessed
	PLOs1	PLOs 2	PLOs 4	PLOs 5	PLOs 6	PLOs 7	PLOs 8	
MLOs 1. Know the main principles, types and methods of therapy of animals.	+							Referenceabstract
MLOs 2. Be able to predict the development of the disease, prescribe treatment and prevention.Analyze the results obtained during the course of treatment.Understand the importance and responsibility for keeping clinical records of thesupervisingphysician.		+						Reviewbriefcase inand an alyzesituations
MLOs 3. Know the features of the etiology ,pathogenesis, symptoms, as well as the principles of treatment and prevention ofanimal diseases			+					Reviewbriefcase inand an alyzesituations
MLOs 4. Ability to conduct clinical trials to draw conclusions about the condition of animals or to make a diagnosis and totake, pack, record and send samples of biological material for laboratory research.				+				Group tasks, problem solving.
MLOs 5. Be able to develop quarantine and health measures, methods of therapy, diagnosis, treatment and prevention of diseases of various etiologies.					+			Practical test of application skills.
MLOs 6. Know the rules of storage of various pharmaceuticals and biologicals, ways of theirenteral orparenteral use, understand the mechanism of their action, interaction and complex action on the body of animals.Formulate conclusions on the exploitation and treatment of animals of different classes and species, prevention of infectious and non-communicable diseases.						+		Practical test of application skills.
MLOs 7. Know about the dangers of biological waste and dispose of them as required							+	Presentations

3. CONTENT OF THE EDUCATIONAL COMPONENT (PROGRAM OF THE COURSE)

Subject . List of issues to be addressed within the topic	Distribution within the total timebudget			Learning resources
	Classroom work		Self-directed study	
	Lectures	Labs		
9 semester				
Topic 1. Fundamentals of general therapy of internal diseases . Introduction. Subject, content and methods of studying the discipline, its structural and logical scheme, importance in the formation of a veterinarian. Basic rules of therapy.Classification of types of therapy.			4	1, 2, 3, 4, 5, 6, 7, 9, 11

Topic 2. Methods of therapy . Classification of methods of veterinary therapy.			6	1, 2, 3, 4, 5, 6, 7, 9, 17
Topic 3. General prevention of internal diseases of animals . Indicators of complete feeding of farm animals.Consideration of features of the organization of rational feeding of animals taking into account a kind, age, breed, a physiological condition, industrial use of animals, type of a diet. Study of the composition of feed, which may contain a significant amount of different chemical structure of substances that are potentially dangerous to animal and human health as consumers of livestock products. Analysis of animal feeding and feed quality. Anti- nutrients (antialimentary , protease inhibitors , antivitamins,antiminerals). Toxic substances of feed: glycosides (nitro- and thioglycosides , saponins, polyphenoliccompounds). The use of chemical and microbiological synthesis for the prevention of internal diseases of animals.	2		5	1, 2, 3, 4, 5, 6, 7, 20
Topic 4. Medical examination of farm animals, its theoretical foundations, stages and tasks . General prevention of internal diseases of farm animals . Medical examination. Methodology of medical examination. Consideration of the principles of sample population and continuity. Stages and plan of medical examination.			5	1, 2, 3, 4, 5, 6, 7, 13
Topic 5. Diseases of the cardiovascular system . Introduction to the main symptoms and syndromes of diseases of the cardiovascular system. Acute and chronic heart failure. Pericardial diseases. Traumatic pericarditis. Differential diagnosis of traumatic pericarditis and reticuloperitonitis . Treatment and prevention of pericardial diseases. Hydropericardium , differential diagnosis of pericarditis. Myocardial diseases: myocarditis, myocardial infarction ,myocardial fibrosis (myocardiosclerosis), myocardial infarction , myocardial infarction, heart enlargement,cardiomyopathy . Differential diagnosis of myocardial infarction . Differential diagnosis of myocardial infarction and myocarditis. Treatment of animals with myocardial damage. Endocardial diseases: endocarditis, heart disease. Differential diagnosis ofendocardial diseases . Consideration of medical history. Hypertension, its causes and diagnosis.Vascular diseases: arteriosclerosis and thrombosis.			10	1, 2, 3, 4, 5, 6, 7, 14
Topic 6. Diseases of the respiratory system . Classification of diseases of the respiratory system, their prevalence. Rhinitis. Bleeding from the nose.Sinusitis. Frontitis. Aerocystitis. Laryngitis. Swelling of the larynx. Tracheitis. Bronchial asthma.Bronchitis. Animal studies in case of nosebleeds, rhinitis, laryngitis, laryngeal edema, tracheitis, bronchitis. Pneumonia: definition, classification by etiology, nature of exudation and the degree of lung tissue damage. Catarrhal bronchopneumonia: definition, etiology, pathogenesis, symptoms.Determination of the etiology of lobar, aspiration andatelectatic pneumonia and their differential diagnosis from catarrhal bronchopneumonia and bronchitis.Treatment and prevention of pneumonia in young animals. Lobar pneumonia. Atelectatic pneumonia.Metastatic pneumonia. Hypostatic pneumonia.Aspiration pneumonia. Purule			10	1, 2, 3, 4, 5, 6, 7, 15

nt-necrotic pneumonia, pulmonary gangrene. Research of sick animals.Introduction to diagnostic methods for pneumonia.Development of treatment and prevention measures for lung diseases of inflammatory nature. Providing medical care to animals with pneumonia.Consideration of medical history. Hyperemia and pulmonary edema. Alveolar and interstitialemphysema of the lungs. Pulmonary hemorrhage.Pleural diseases. Pleurisy: etiology, pathogenesis, symptoms, diagnosis and treatment. Hydrothorax , pneumothorax. Research of sick animals.Consideration of medical history.				
Topic 7. Diseases of the digestive system, liver and bile ducts . Classification of diseases of the digestive system.Diseases of the oral cavity, pharynx and esophagus.Stomatitis. Pharyngitis. Pharyngeal paralysis.Inflammation of the esophagus. Enlargement of the esophagus. Narrowing of the esophagus. Obstruction of the esophagus. Paralysis of the esophagus.Esophageal spasm. Diseases of the pancreas and abomasum. Hypotension of the scar. Scar acidosis.Scar alkalosis. Scar overflow. Paresis of the scar.Parakeratosis of the scar. Ruminite . Acute tympanic scar. Reticulitis . Traumatic reticulitis andreticuloperitonitis . Clos ing the book. Abdominaldisplacement and abomasum inflammation, Hofflund'ssyndrome . Diseases of the stomach and intestines: gastritis, gastroenteritis, gastric ulcer, enterocolitis.Diseases of the stomach and intestines with colic syndrome: classification, main symptoms, diagnostic methods, principles of treatment. Stomach enlargement. Himostasis . Coprostasis. Enteralgia .Flatulence. Int estinal obstruction. Mechanical obstruction: torsion and torsion of the intestines, pinching, intussusception and displacement of the intestines. Thromboembolism of the mesentericarteries. Registration and consideration of medical history, diagnosis, treatment. Providing medical care for diseases of the gastrointestinal tract. Development of treatment and prevention measures for diseases of the gastrointestinal tract. Classification of diseases of the liver and bile passages . Main symptoms (jaundice , cholestasis) f or diseases of the liver andbile passages . Hepatitis. Amyloidosis . Cirrhosis .Hepato dystrophy : etiology , pathogenesis, symptoms ,diagnostic methods . Differential diagno sis (hepatodystrophy , parenchymal and purulent hepatitis,cirrhosi s), treatment and Prof. ilaktyka diseases of the liver . Diseases of the biliary tract : cholecystitis,cholangitis , gallstone disease . Prof. prevention ofliv er disease .		2	10	1, 2, 3, 4, 5, 6, 7, 16
Topic 8. Peritoneal diseases . Diseases Sectionidshlunkovoyi cancer . Peritoneal diseases. Peritonitis. Hydrocephalus.Differential diagnosis, treatment and prevention.Research of sick animals. Consideration of medical history. Classification of diseases of the pancreas.The main symptoms of diseases of the pancreas, pain,cholestatic and exocrine insufficiency. Pancreatitis.			2	1, 2, 3, 4, 5, 6, 7, 23
Topic 9. Diseases of the kidneys and urinary tract . Classification and main syndromes of diseases of the urinary system. Study of kidney diseases:glomerulonephritis (nephritis),			10	1, 2, 3, 4, 5, 6, 7, 12

pyelonephritis and its complications (peri- and paranephritis, pyonephrosis), kidney abscess, nephrosclerosis, nephrosis (nephroticsyndrome), hydronephrosis. Differential diagnosis, treatment and prevention of kidney disease. Study of urinary tract diseases: urocystitis . neurogenicdysfunction of the bladder (the sphincter spasms, paresis and paralysis of the bladder). Urolithiasis (nephro- and urolithiasis). Chronic hematuria of cattle.Diseases of the lower urinary tract: urethral obstruction and urethritis, diagnosis, appointment and treatment and prevention.				
Topic 10. Diseases of the nervous system . Classification and syndromes of diseases of thenervous system . Vascular disorders main brain , the thermal re p Joanna (hyperthermia), sun stroke (hiperinsolyatsiya); ischemia and hyperemia of thebrain and its membranes . Hydrocephalus of theventricles of the brain (hydroencephalitis). The study of diseases of the brain and spinal cord and brainmembranes inflammatory disorders, meningitis ,encephalitis , myelitis , meningoencephalitis ,meninhomislit . Functional nerve disease , neurosis ,ep ilepsiya , eclampsia . Stress and its prevention .		2	10	1, 2, 3, 4, 5, 6, 7, 13
Topic 11. Diseases of the blood system . Classification of diseases of the blood system. Study of anemias: posthemorrhagic , hypoplastic (myelotoxic and alimentary-deficient) and hemolytic (toxic, postpartum hemoglobinuria of cows, paroxysmal hemoglobinuria , iso- and autoimmune).Treatment and prevention of anemia. Hemorrhagicdiathesis: hemophilia and thrombocytopenia . Tumor lesions of the blood system (hemoblastosis): leukemia (leukemia), hematosarcoma .		2	8	1, 2, 3, 4, 5, 6, 7.
Topic 12. Diseases of the immune system .Allergic diseases (allergies) . Study of cellular and humoral mechanisms ofprotection of an organism . Immune deficiencies .Study gap iferatyvnyh diseases of the immune system: hiperleykotsytozy , hiperimunohlobulinemiyi ,limfohranulotsytoz , plasmacytoma ,macroglobulinemia , a disease " heavy chains ".Autoimmune diseases . General characteristics ofautoimmune diseases . And Dr. iopatychni disease ,autoimmune hemolytic disease of the newbornanimals , autoimmune hemolytic anemia dogs and cats(AGA), an autoimmune dermatosis (rederythematosus). Differential diagnosis , treatment andProf. il aktyka diseases of the immune system .General mechanisms of allergic reactions . Mediatorsof allergic reactions , her 's would iolohichna action .Methods of diagnosis of allergic diseases. Generalprinciples and methods for the treatment of allergicdiseases : antihistamines and anti-inflammatory , heartand antispasmodic agents . Phytotherapy for allergicdiseases . Definition , etiology , pathogenesis,diagnosis and l ikuvannya certain allergic diseases.Hemorrhagic disease . Allergic shock. Allergic rhinitisand conjunctiva it . Food allergy . Drug allergy andserum sickness. Allergy to snake venom ,bloodsucking and stinging insects. Syndrome ofcombination of immune deficiency and allergies .			2	1, 2, 3, 4, 5, 6, 7, 14
10 semester				

Topic 13. Diseases are caused by metabolic disorders . Classification, distribution, features of the course and diagnosis. Study of diseases caused by predominant disorders of protein, carbohydrate and lipid metabolism: ketosis of cows and sheep, myoglobinuria, obesity, alimentary dystrophy. Diseases caused by disorders of macronutrient metabolism : osteodystrophy (alimentary, enzootic, secondary),hypomagnesemia (pasture tetany), postpartumhypophosphatemia . Microelementosis of animals Distribution, general principles of diagnosis and prevention. Iodine deficiency. hypocobaltosis ,hypocuprose , zinc deficiency (paraxratosis ofpiglets), manganese, fluorine, selenium. Excess fluorine, boron, selenium , nickel, strontium andmolybdenum. Hypovitaminosis . Insufficiency of fat-soluble vitamins: A, D, E, K. Insufficiency of water-soluble vitamins: thiamine, riboflavin, nicotinic acid, pyridoxine, cyanocobalamin , ascorbic acid.Hypervitaminosis A and. D. Differential diagnosis, treatment and prevention of animals with metabolic disorders.	2	2	40	1, 2, 3, 4, 5, 6, 7, 15
Topic 1 4 . Diseases of the endocrine organs .Skin diseases . Study of the causes and mechanisms of endocrine diseases. Hypothalamic and pituitary dysfunction .Diabetes mellitus. Diseases of the adrenal glands:hypoadrenocorticism and Cushing's syndrome .Disorders of endocrine function of the pancreas.Diabetes. Diseases of the thyroid gland:hypoparathyroidism , postpartum hypocalcemia .Thyroid diseases: hypothyroidism, endemic goiter, diffuse toxic goiter. Disorders of endocrine function of the thymus . Allergic skin diseases: eczema, urticaria, atonic dermatitis, sputum. Autoimmune skin diseases: vesicular dermatoses, disc-shaped lupus erythematosus . Dermatosparaxia . Differential diagnosis of skin diseases. Diseases of the skin glands: seborrhea, sweat gland dysfunction , pyoderma. Symptoms of skin lesions: alopecia, excessive hair growth, changes in skin and hair pigmentation, itchy skin. Psychogenic skin lesion syndrome.		2	34	1, 2, 3, 4, 5, 6, 7, 22
Topic 1 5 . Diseases of young animals . Spread of diseases in young animals. Features of agephysiology of young animals . And m unny protection of newborn young growth . Immunodeficiency ofyoung animals. Classification of diseases of young animals. Antenatal malnutrition . Acute hypoxia introand - and neonatal periods . Neonatal diseases withdiarrhea syndrome : case in- bezoar disease, colostrumtoxicosis, dyspepsia . Differential diagn osis , treatmentand prevention of gastrointestinal diseases of newbornanimals . Omphalitis and omphalophlebitis . Metaboli c disease of young, Mr. ipohlikemiya, hypoplasticanemia piglets, calves and lambs; D -hypovitaminosis(rickets); white muscle disease of young animals;enzootic ataxia of lambs. Diseases of the digestive system . Periodic tympanic scar in calves and lambs.Bezoar disease .		2	38	1, 2, 3, 4, 5, 6, 7, 22
Total	4	12	194	

4. METHODS OF TEACHING AND TEACHING

MLOs	**Teaching methods** (directed study)	hours	**Learning methods** (self-directed study)	hours
MLOs 1.	Lecture, story, explanation, instruction, work with books and other sources . Learning the basic principles, types and shall t o e s use of drugs of different dosage forms . Work with animals / biological materials, in a group of 2-3 students		Reading (elaboration of theoretical material). Using the Moodle platform for remote control of material acquisition	
MLOs 2.	Multimedia lecture, story, explanation, instruction, work with books and other sources. Work with animals / biological materials, in a group of 2-3 students		Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals). Registration of the synopsis on independent work	
MLOs 3.	Multimedia lecture, story, explanation, instruction, work with books and other sources. Work with animals / biological materials, in a group of 2-3 students		Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals). Registration of the synopsis on independent work	
MLOs 4.	Demonstration of available equipment and devices, videos, their use during diagnostic, preventive,veterinary and sanitary works.		Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals). Registration of the synopsis on independent work	
MLOs 5.	Demonstration of available equipment and devices, videos, their use during diagnostic, preventive,veterinary and sanitary works.		Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals). Registration of the synopsis on independent work	
MLOs 6.	Thematic survey during laboratory (concept of symptom, prognosis, diagnosis, syndrome, fixation of animals, methods of laboratory work. Work with animals / biological materials, in a group of 2-3 students		Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals). Registration of the synopsis on independent work	
MLOs 7.	Thematic survey during laboratory (concept of symptom, prognosis, diagnosis, syndrome, fixation of animals, methods of laboratory work. Work with animals / biological materials, in a group of 2-3 students		Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals). Registration of the synopsis on independent work	

5. EVALUATION BY EDUCATIONAL COMPONENT

5.1. Diagnostic evaluation (indicated if necessary)

Computer testing for knowledge of the etiology, pathogenesis, symptoms and pathological signs of major non-communicable diseases and other issues on which the study of internal diseases of animals is based. The grade is not issued.

5.2. Summative assessment

5.2.1. To assess the expected learning outcomes provided

№	Methods of summative evaluation	Points / Weight in the overall score	Date of compilation
9 semester			
1.	Thematic survey	20 points / 20%	Weekly
2.	Working with animals	25 points / 25%	According to the schedule of the hospital
3.	Solving situational problems	25 points / 25%	According to the schedule
4.	Protection of the abstract from independent work	15 points / 15%	According to the schedule of delivery of modules
5.	Multiple choice tests	15 points / 15%	According to the schedule
10 semester			
1.	Thematic survey	20 points / 20%	Weekly
2.	Working with animals	25 points / 25%	According to the schedule of the hospital
3.	Solving situational problems	25 points / 25%	According to the schedule
4.	Protection of the abstract from independent work	15 points / 15%	According to the schedule of delivery of modules
5.	Multiple choice tests	15 points / 15%	According to the schedule

Component	**Unsatisfactorily**	**Satisfactorily**	**Fine**	**Perfectly**
	<12 points in	*12-15*	*15-18 points*	*20 points*
Thematic survey	The student can play only individual fragments of the course.	The student has certain knowledge provided in the program of the discipline, has the basic provisionsstudied at a level that is defined as the	The student in general is well versed in the material, knows the basic provisions of the material, makes an analysis of possible situations based on them and is able to apply in solving typical practical	The student demonstrates complete and solid knowledge of the educational material in the amount that corresponds to the program of the discipline, correctly and reasonably makes the necessary decisions in various non-standard situations.

		minimum allowable	problems, but admits some inaccuracies	
	<2 points	*2-5*	*5-8 points*	*10 points*
Working with animals	Task requirements not met	Most requirements are met, but some components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue	All the requirements of the task are met , but in violation of themethods	The task isperformedmethodicallycorrectly andqualitatively .Students in Mierealize thetheoretical position of the discipline in practice
Solving situational problems	The student is not prepared to solve problems, theanswer is incomplete, some components are missing or insufficient to disclose	Using the basic theoretical provisions, the student has difficulty performing the task.Tasks are significantly formalized: there is a correspondence of the algorithm, but there is no deep understanding of the work	The student has mastered the basic material, and understands the solution of problems, has suggestions on the direction of their solutions.Understands the main provisions that are decisive in the course, can solve similar problems with those discussed with the teacher, but allows a small number of inaccuracies	The correct answer . P ri performingtasks demonstratedthe ability toindependentlysolve the set task

5.1. Formative assessment:

To assess current progress in learning and understanding areas for further improvement

№	**Elements of formative assessment**	**Date**
1	Oral questioning by a laboratory (concept symptoms, prognosis, diagnosis , syndrome, fixing animals , methods ofimplementation of laboratory work)	During the lesson
2	Verbal feedback from the teacher Mr. Eid while working ona yrishennya of situation tasks (orally, registration and medical history, use of the data for further study of animals)during the sessions	During the lesson
3	Pysmovmy feedback from teacher Mr. donkey checkcompendium of independent study courses	Within a week, after execution

Self-assessment can be used as an element of summative assessment and formative assessment.

6. LEARNING RESOURCES (LITERATURE)

6.1. The main sources

6.1.1. Textbooks guide

1. Internal diseases of animals / Levchenko VI, etc .; VI Levchenko . Bila Tserkva, 2012. Part 1. 528 p.
2. Internal diseases of animals / Levchenko VI and others; for order. VI Levchenko . Bila Tserkva, 2001. Part 2. 544 p.
3 Internal non-communicable diseases of animals: textbook . / Tsvilikhovsky MI and others. 3rd ed., Revised . and add . Kyiv: Agrarian Education, 2014. 614 p.
4. Internal diseases of animals / Tsvilikhovsky MI and others. Kyiv: Aristei , 2004. 139 p.
5 . General therapy and prevention of internal diseases of animals: workshop / Levchenko VI and others; for order. VI Levchenko . Bila Tserkva, 2000. 224 p.
6. Internal diseases of animals: a workshop. / Tsvilikhovsky MI and others. Kyiv: Aristei , 2005. 148 p.
7. Kondrahyn Y.P, LevchenkoV.Y ., Talented , GA Handbook of veterinary therapist and toxicologist. Moscow: Kolos S. 2005. 544 p.

6.1.2. Methodical support

8. Internal diseases of animals. Methods of fixation and taming of animals and basic methods of research of animals at internal diseases. Methodical instructions for laboratory-practical classes for 3rd year students in the direction of training 6.110101 - "veterinary medicine" / L.G. Ulko, VM Musienko, OI Sklyar, OV Musienko, OI Shkromada , R.V. Dolbanosova , OS Tank . - Sumy, SNAU. - 2015. - 31 p.
9. METHODICAL MANUAL "Methods of therapeutic techniques" for independent work of students of the Faculty of Veterinary Medicine on internal diseases of animals for 3rd year students of the Faculty of Veterinary Medicine in the field of training 6.110101 - "Veterinary Medicine" - Sumy: Sumy State Agrarian University, - 49
10. The use of dietary feed for internal diseases of animals. Methodical manual. - Sumy. - 2015. - 37 p.
11. General prevention of internal diseases of animals. Methodical manual for laboratory - practical classes and independent work of 3rd year students of the Faculty of Veterinary Medicine in the discipline "Internal Diseases of Animals". - Amounts 2015 - 100 s.

6.1.3. Other sources

12. http : // zoolife.rv.ua
13. https : // studfiles . no
14. http : // tvarunu . com . ua / tsikave / 130/144 /
15. http : // ukranimals . ru
16. http : // medbib . in . ua

6.2. Additional sources

17. Workshop on clinical diagnosis of animal diseases to laboratory classes and independent work of students / [N.I. Suslova, P.P. Antonenko, P.M. Sk larov and others.]□// Dnipropetrovsk State Agrarian University, Department of Clinical Diagnostics and Internal Diseases of Animals - Dnipropetrovsk: DSAU Publishing House, 2013. - 274 p.
18. Antonenko PP Medicinal plants in animal husbandry; textbook / N.I. Suslova, VO Postoenko (etc.) Kherson Oldie- Plus , 2014, 424p.
19 . Lokes . P.I. Medicinal plants. Textbook / P.I. Lokes , I.S. Postoenko . Poltava: Environment.- K., 2010.- 264 p.
20. Lokes P.I. basics of veterinary formulation and technology of dosage forms: textbook . manual./ P.P. Shekhtakhin , TP Lokes - Krupka, NS Kanivets - Poktava , FOP Tovarov SV 2014.- 152 p.
21. Yevushenko MD Maryutin FM, Turenko VP tv etc., Phyto - pharmacology / textbook MD Yevtushenko, FM Martin, VP, VP . Turenko. Higher education, -K .:, 2004.- 432p.

22. Kozachok VS Clinical study of exotic animals: Textbook / V.S. Козачок, O.O. Skiba, MI Tsvilikhovsky . - К .: Арістей , 2010. - 252 с.
23. Mazurkevich A.Y. Pathophysiology of animals / Mazurkevich AY, Tarasevich VL, Klyugi J. - K .: Higher school, 2000. -352 p.

6.3. Software

- Computers with software for practical work
- Microsoft Power Point - data visualization Microsoft Power BI - analytics and data visualization
- Multimedia projector, whiteboard and screen;
- Moodle distance learning and control system