

NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES
OF UKRAINE

Department of internal diseases of animals



“CONFIRMED”

Dean faculty of veterinary medicine
prof. Mykola TSVILIKHOVSKY

“ 16 ” 18 05 2024

“APPROVED”

at the meeting of the department of therapy
and clinical diagnostics

Minutes № 9 of “ 15 ” 05 2024

Head of department

 prof. Nataliia GRUSHANSKA

”REVIEWED ”

Guarantor of AP “Veterinary medicine”

Program Guarantor

 prof. Nataliia GRUSHANSKA

CURRICULUM OF ACADEMIC DISCIPLINE
«SPECIAL PROPEDEUTICS, THERAPY AND PREVENTION OF
INTERNAL ANIMAL DISEASES»

Field of knowledge «Veterinary medicine»

Specialty 211 – «Veterinary medicine»

Academic programme Veterinary medicine

Faculty of Veterinary Medicine

Authors: Sharandak P.V., d. vet. sci, professor
Zemliansky A.O., PhD of vet sci, as. prof.

Kyiv – 2024

1. Description in the course
Special propedeutics, therapy and prevention of internal animal diseases

Field of knowledge, specialty, educational degree		
Academic degree	Master	
Specialty	21 – «Veterinary medicine»	
Academic programme	«Veterinary medicine»	
Characteristics of the course		
Type	Compulsory	
Total number of hours	120	
Number of ECTS credits	4	
Number of modules	2	
Course project (work) (if any)	–	
Form of assessment	Credit, Credit	
Indicators of the discipline for full-time and part-time forms of university study		
	Full-time form of study	Part-time form of study
Course (year of education)	6	–
Semester	11	–
Lecture classes	15 hr.	–
Practical, seminar classes	–	–
Laboratory classes	15 hr.	–
Self-study	90 hr.	–
Individual assignments	–	–
Number of weekly classroom hours for the full-time form of study	2 hours	

1. Aim, objectives, competences and expected learning outcomes of the discipline

Aim of the educational discipline "Special propaedeutics, therapy and prevention of internal diseases of animals" is to improve and deepen theoretical knowledge and obtain practical skills in the recognition of internal diseases of animals, organization of preventive and therapeutic measures depending on the chosen direction, as well as to prepare the master's student for independent work in the chosen discipline .

Objectives of the discipline:

- master modern methods of clinical and laboratory research for diagnosis and differential diagnosis of animal diseases;
- master modern methods of treatment and prevention of the most common internal diseases of animals;

- to acquire the skills of analysis, generalization of the material from the selected problem while writing the master's thesis.

Acquisition of competences:

integrated competency (IC):

- IC 1 The ability to solve complex tasks and problems in the field of veterinary medicine, which involves conducting research and/or implementing innovations and is characterized by the uncertainty of conditions and requirements.

general competences (GC):

- GC 1. Ability to conduct research at an appropriate level.
- GC2 Ability to make informed decisions.

special (professional) competences (SC):

- SC 1. Ability to plan, organize and implement measures for the treatment of animals of various classes and species suffering from non-contagious, infectious and invasive diseases.
- SC 2. The ability to develop strategies for the prevention of diseases of various etiologies.

Expected Learning Outcomes (ELO):

- To establish a connection between the clinical manifestations of the disease and the results of laboratory studies.
- Develop quarantine and health measures, methods of therapy, prevention, diagnosis and treatment of diseases of various etiologies.
- Carry out educational activities among industry workers and the population.

**2. Programme and structure of the discipline for:
– complete full-time (part-time) form of study**

Module 1. Special propedeutics

Topic of the lecture 1. Physiological foundations of the ECG and its diagnostic significance.

Topic of lecture 2. Special propaedeutics for diseases of the digestive system in young children.

Topic of lecture 3. Instrumental research of animals for kidney and bladder diseases.

Topic of lecture 4. Endocrinopathies of animals. Mechanism of development, methods of diagnosis and treatment.

Module 2. Special therapy and prophylaxis

Topic of lecture 5. Immunopathology. Mechanism of development, methods of diagnosis and treatment.

Topic of lecture 6. Cardiorespiratory syndromes. The mechanism of their occurrence, methods of diagnosis and treatment.

Topic of lecture 7. Neurology. Functional diseases of the nervous system in animals.

Topic of lecture 8. General characteristics, mechanisms of development, diagnosis of allergic and autoimmune skin diseases.

Structure of education discipline

Names of content modules and topics	Number of hours						
	Full-time form						
	weeks	total	Also include				
			1	p	lab	ind	self
1	2	2	3	4	5	6	7
Content module 1. Special propedeutics.							
Topic 1. Special propedeutics animals with heart pathology.	1-2	15	2		2		11
Topic 2. Special propedeutics animals with diseases of alimentary system.	3-4	15	2		2		11
Topic 3. Special propedeutics animals with diseases of kidney and urinary tract.	5-6	15	2		2		11
Topic 4. Special propedeutics animals with diseases of endocrine organs.	7-8	15	2		2		11
Together according to the content module 1		60	8		8		44
Content module 2. Diseases of cardiovascular and pulmonary system.							
Topic 5. Immunopathology. Mechanism of development, methods of diagnosis and treatment.	9-10	15	2		2		11
Topic 6. Cardiorespiratory syndromes. The mechanism of their occurrence, methods of diagnosis and treatment.	11-12	15	2		2		11
Topic 7. Neurology. General principles of diagnosis, treatment and prevention.	13-14	15	2		2		11
Topic 8. Special propedeutics, diagnostics, therapy and prevention for allergic and autoimmune skin diseases.	15	15	1		1		13

Together according to the content module 2	60	7	7	46
Total hours	120	15	15	90

4. Topics of seminar classes are not provided.

5. Topics of practical classes are not provided.

6. Laboratory class topics

No order	Name of topics	Hours
Module 1. Special propedeutics.		
1.	Special propedeutics of animals with heart failure. Cardiomyopathies.	2
2.	Special propedeutics of animals for diseases of the stomach and intestines.	2
3.	Special propedeutics of animals with kidney failure.	2
4.	Special propedeutics of animals for diseases of endocrine organs.	2
5.	Special propedeutics, diagnostics, therapy and prevention for immunodeficiencies in animals.	2
6.	Special propedeutics, diagnostics and therapy for emergency conditions. Types of shock. Cardiogenic shock. Anaphylactic shock. Emergency aid.	2
7.	Special propedeutics, diagnostics, therapy and prevention for diseases of the brain and spinal cord.	2
8.	Special propedeutics, diagnostics, therapy and prevention for allergic and autoimmune skin diseases.	1
Total		15

7. Topics for self-study

No	Topic title	Hours
1	ECG changes due to heart pathology (myocarditis, myocardial dystrophy, pericarditis, arrhythmias)	15
2	Special propedeutics of animals with hepatobiliary pathology	15
3	Analysis of the results of clinical and laboratory studies for kidney pathology.	15
4	Differential diagnosis of endocrinopathies.	15
5	Analysis of the results of clinical and laboratory studies for immunodeficiencies.	15
6	Emergency care for diseases of the respiratory system.	15
Total		90

8. Teaching methods.

- verbal method (lecture, explanation, discussion, instruction, conversation);
- practical method (laboratory, practical classes, statistical processing);
- visual method (explanation, discussion, instruction, conversation);
- work with educational and methodical literature (summarizing, summarizing, annotating, reviewing, writing an essay);
- video method (distance, multimedia, web-oriented classes);
- independent work (task performance).

9. Forms of assessment

- oral or written survey;
- modular testing;
- team projects;
- abstracts, essays;
- protection of practical works;
- presentations and speeches at scientific events.

NUBiP of Ukraine

«Form of test tasks for credit»

Faculty of veterinary medicine

Form of education full-time

Semester 8 Year of education IV

ED«Master»

Department Internal diseases of animals

Discipline « Special propedeutics, therapy and prevention of internal animal diseases»

Lecturer _____

«Approve»

Head of department _____

« ____ » _____ 2024

Variant № 1

1. In the veal-hypotrophy there is a weight loss, cyanosis of the mucous membranes, a decrease in skin elasticity, wool is squat. Body temperature is 38.9 ° C. Breathing is accelerated, tense, superficial. Cough long. The wheezing is wet. In the lower area of the chest, respiratory noises are not listened to. In percussion of the chest, limited areas of blunts were detected on the left. Make a diagnosis

1.	Acute bronchitis
2.	Crupose pneumonia
3.	Chronic bronchopneumonia
4.	Emphisema of lungs

2. Name what infectious disease should be taken into account in the differential diagnosis of primary pharyngitis in pigs

1.	Salmonellosis
2.	Anthrax
3.	Erysipeloid
4.	Pastereliosis

3. Name the disease of the pancakes of ruminants, which can be complicated

1.	Tympania rumen
2.	Acidosis rumen
3.	Alkalosis rumen
4.	Closing of omasum
5.	Traumatic reticulitis

4. The most pronounced biological action of ultraviolet rays:

1.	Long waves
2.	Medium waves
3.	Short waves
4.	mixed

5. Name the disease in horses with a symptom complex of colic at which the sex of the animal is required to consider

1.	Catarrhal enteralgia
2.	Pinching of the inguinal and mock hernia
3.	Tromboembolism of mesenteric arteries
4.	Twist of the gut

6. With intra-abdominal introduction of piglets-sidunes fix the pelvic extremities upside down. The injection place is

1.	In the area of the hungry fossa on the left side
2.	between the penultimate pair of nipples at a distance of 3.0 cm from the white line on the right or left side
3.	In the area of the hungry fossa on the right side
4.	between the last pair of nipples at a distance of 1-1.5 cm from the white line on the right or left side

7. List novocaine blockades shown in bronchopneumonia of animals

1.	Lumbar (paraneprhal)
2.	Stellar sympathetic node
3.	Thoracic visceral nerves and border trunk
4.	Sacral
5.	Paralumbinal

18. What diseases correspond to the given treatment

1. Ulcerus disease	A. Acetic acid, sugar, sour milk
2. Ascitis	B. Furosemdie, Calcium Chloride, Digtoxin

8. Name the heart disease characterized by the growth of connective (fibrous) tissue in the myocardium and its compaction.

(In the answer sheet fit the right answer in one word)

9. The symptom complex of a number of diseases of systems and organs that are accompanied by the accumulation of transudate in the pleural cavity is called

(In the answer sheet fit the right answer in one word)

10 List the drugs used to weaken cough in small animals

1.	Codein sulfatis
2.	Silver nitrate
3.	Ascorbinic acid
4.	Libexin
5.	Tetracyclinum

11. List medicines shown in ulcer disease

1.	Binders
2.	Diuretic
3.	Hemostatic
4.	Painkillers
5.	Non -steroidal anti -inflammatory

12. Name the remedies for correction of the pH of scar in alkalosis

1.	Acide milk
2.	Sodium hydrocarbonatis
3.	Sugar
4.	Acetic acid
5.	Alkaline mixes

13. Place in accordance with heart disease symptoms

A. Myocarditis	1. Body temperature is normal 2. Tachycardia is sharply expressed 3. Weakening of the heartbeat
B. Myocardiosis	4. Edema develops rapidly, increasing every day of illness 5. Pain in the area of the heart 6. Swelling develops slowly and often have a variable character 7. Often knocking a heartbeat

14. What is called parenteral administration for therapeutic purposes of various protein substances.

(In the answer sheet fit the right answer in one word)

15. Inflammation of the mucous membrane and the submucosal layer of the nose is called.

(In the answer sheet fit the right answer in one word)

16. What is the complex stomach in newborn calves begins to function from the first day of life?

1	Rumen
2	Omasum
3	Reticulum
4	Abomasum

17. List the symptoms characteristic of larynx swelling in animals

1.	Visible mucous membranes hyperemic
2.	Difficulty breathing that is often accompanied by whistle, wheezing, moaning
3.	Expiratory shortness of breath
4.	Serous purulent leakage from nostrils
5.	Inspiratory shortness of breath

28. Place in accordance with the symptoms predominantly right or left ventricular heart failure

A. Right-ventriculom failure	1. Pulmonary edema 2. Stagnation of blood in the liver
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3. AAlkalosis rumen	C.Bismuth preparations, mucous decoctions, Belladonna preparations, Vikasol, vit u
4.Katarhal enteralgia	D.Atropine sulfate, tincture of valerian, warm shallow enemas

19. Due to localization endocarditis is:

1	Valvular
2	Vascular
3	Wall
4	Perforative
5	Warty

20. Lisatomedicines are

1	Pancreatine
2	ASD
3	HydrolysineL-130
4	Sirepar
5	Kampolon

21. Which of these drugs are shown in acute myocarditis

1	Antibiotics
2	Cardiac glycosides
3	Corticosteroids
4	Cold on heart area
5	Infared irradiation

22. What diseases of the pleura correspond to these symptoms?

1.Pleuritis	A.Body temperature is increased by 1-1.5 ° C. At auscultation, friction noises are heard, which are exacerbated by pressure on the chest with a phonendoscope. The cough is weak, painful..
2. Hydrothorax	B. Asymmetry of the chest wall. On the damaged side, percussion reveals a fairly strong box sound.
3. Pneumothorax	C.Dumped or blunt sound in the chest area, the area of which is limited by a horizontal upper line. Body temperature is normal or reduced..

23. What is called the introduction into the body through intact skin or mucous membrane of medicinal substances in the form of ions by means of galvanic current

(In the answer sheet fit the right answer in one word)

24. What is called myocardial inflammation, characterized by exudative-proliferative processes of interstitial tissue and alternative changes in muscle fibers

(In the answer sheet fit the right answer in one word)

25. List the upper respiratory tract diseases

1.	Pneumonia
2.	Tracheitis
3.	Pleuritis
4.	Laringitis
5.	Meningitis

26. Heamotherapia consists of:

1	Hemotransfusion;
2	Lactotherapy;
3	Isohemotherapy;
4	Heterohemotherapy

27. The replacement therapy is directed:

1	to replenish the lack of vital substances in the body
2	on the mechanism of disease development
3	to eliminate the cause of illness
4	to normalize the functions of the nervous system

B.Left-ventriculum failure	3. Hydrothorax and ascites 4. Shortness of breath 5. Cough 6. Swelling of subcutaneous tissue distal extremities
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29. Place in accordance with when shown and contraindicated IR irradiation

A. is shown	1. Malignant tumors
B. is contraindicated	2. myositis, arthritis 3. Hemorrhagic diathesis 4. Treatment of wet eczema 5. Cachexia 6. Bronchopneumonia

30. To place for which pericarditis is characterized by symptoms:

A. Fibrinous pericarditis	1. Overflow and tension jugular veins 2. The soreness of the cardiac area 3. Weakening and diffusion of cardiac impulse.
B.Exudated pericarditis	4. Pericardial noise friction. 5. Pericardial noises of splash

Control questions

1. Describe left ventricular heart failure.
2. Describe right ventricular heart failure.
3. Specify ECG changes for myocarditis.
4. Specify ECG changes for myocardosis.
5. List heart defects.
6. Diagnosis of cardiomyopathies.
7. Treatment of animals for cardiomyopathy.
8. Name the main syndromes for diseases of the alimentary canal.
9. Peculiarities of digestion of newborn animals.
10. Treatment of animals for gastritis.
11. Treatment of animals for enteritis.
12. Treatment of animals for ulcer disease.
13. What are the main syndromes in liver diseases?
14. What are the symptoms and treatment of acute parenchymal hepatitis?
15. What are the syndromes of parenchymal jaundice?
16. Therapy and prevention of hepatosis.
17. Describe the syndrome of mechanical jaundice?
18. Describe cholemic syndrome.
19. Describe hepatic encephalopathy.
20. Describe cholelithiasis and its prevention.
21. What are the modern approaches to treatment for liver diseases?
22. Name the most common diseases of the pancreas.
23. Syndromatics for pathology of the adrenal glands.
24. Treatment of animals for adrenal gland pathology.
25. General symptoms of diseases of the urinary system.
26. Etiology of diseases of the urinary system.
27. Symptoms and pathogenesis of acute renal failure.
28. Therapy and prevention of acute renal failure.
29. Etiology and pathogenesis of chronic renal failure.
30. Symptoms of chronic renal failure.
31. Therapy and prevention of chronic renal failure.
32. Diagnosis of diseases of the urinary tract.
33. Pathogenesis and symptoms of urocystitis.
34. Principles of therapy for diseases of the urinary tract.
35. Prevention of diseases of the urinary tract.
36. What are the etiological factors of kidney disease?
37. What are the main clinical signs of kidney diseases?
38. Principles of treatment of animals with renal pathology.
39. Peculiarities of diagnosis of nephrosis in animals.
40. Name the most common diseases of the urinary tract.
41. What are the causes of urinary tract disease?
42. Name the main clinical signs of urolithiasis.
43. Name the main syndromes for diseases of endocrine organs.
44. Differential diagnosis of endocrinopathies.
45. Etiology, pathogenesis and symptoms of diabetes.
46. Principles of treatment of animals with diabetes.
47. Basic methods of diabetes prevention.
48. Treatment measures for hypoglycemic coma.
49. The main causes, pathogenesis and symptoms of diabetes insipidus.
50. Features of diagnosis of diabetes.

51. What are the principles of animal therapy for diabetes insipidus?
52. Etiology, pathogenesis and symptoms of hyperadrenocorticism.
53. Etiology, pathogenesis and symptoms of hypoadrenocorticism.
54. Etiology, pathogenesis and symptoms of thyroid hypofunction.
55. Treatment and preventive measures for diseases of endocrine organs.
56. The mechanism of development of pathology of the immune system.
57. Methods of diagnosing pathology of the immune system.
58. Therapeutic and preventive measures for immunodeficiencies.
59. Resistance and factors influencing it.
60. Clinical value of resistance indicators.
61. The main types of shock, their characteristics.
62. Pathogenesis of cardiogenic shock.
63. Pathogenesis of anaphylactic shock.
64. Emergency aid for shock states.
65. Name the main clinical signs of non-inflammatory lung diseases.
66. Name the main clinical signs of inflammatory lung diseases.
67. Etiology, pathogenesis and symptoms of pulmonary bleeding.
68. Diagnosis of pneumonia in animals.
69. Principles of treatment of animals for pneumonia.
70. Treatment and preventive measures for lung diseases of an inflammatory nature.
71. Emergency care for respiratory pathology.
72. The mechanism of development of pathology of the nervous system.
73. Diagnosis of neuroses in animals.
74. Symptoms of sunstroke.
75. Therapy and prevention of sunstroke.
76. Symptoms of meningoencephalitis and meningomyelitis.
77. Therapy and prevention of meningoencephalitis.
78. Therapy and prevention of meningomyelitis.
79. Symptoms of diseases of the brain and spinal cord and their membranes.
80. Principles of diagnosis of meningoencephalitis.
81. Etiology and symptoms of epilepsy.
82. Principles of diagnosis of eclampsia.
83. Principles of animal therapy for neuroses.
84. Methods of diagnosis and prevention of stress syndrome in animals.
85. Methods of diagnosing allergic skin diseases.
86. Differential diagnosis of allergic skin diseases.
87. Principles of prevention and treatment for allergic diseases.
88. Describe the main syndromes of damage to the skin and skin glands.
89. General characteristics of autoimmune diseases.
90. Principles of prevention and treatment of autoimmune diseases.

ASSESSMENT POLICY

Deadlines and Reschedule Policy:	Assignments that are submitted late without valid reason will be graded at a lower grade. The rearrangement of modules takes place with the permission of the lecturer if there are good reasons (for example, sick leave).
Academic Integrity Policy:	Copying during tests and exams is prohibited (including using mobile devices). Term papers, essays must have correct text references to the used literature.
Attendance Policy:	Attendance is mandatory. For objective reasons (for example, illness, international internship), training can take place individually (in online form with the agreement of the dean of the faculty).

10. Distribution of points received by students

The assessment of students' knowledge and skills is conducted by means of a 100-point scale and is converted into national grades according to Table 1 of the current *Exam and Credit Regulations at NULES of Ukraine*.

Student rating, points	National mark for the assembly results	
	exam	credits
90-100	excellent	pass
74-89	good	
60-73	satisfactorily	
0-59	unsatisfactorily	fail

To determine a student's rating in the discipline R_{DIS} (up to 100 points), the received assessment rating R_A (up to 30 points) is added to the academic performance rating R_{AP} (up to 70 points): $R_{DIS} = R_{AP} + R_A$.

11. Teaching and learning aids

- e-learning course of the discipline (<https://elearn.nubip.edu.ua/course/view.php?id=1795>);
- lectures and presentations (in electronic form);
- textbooks, manuals, tutorials;
- guidelines for studying a discipline by full-time and part-time students; internship programmes of the discipline (if included in the curriculum).

12. Recommended sources of information.

Basic

1. Спеціальна пропедевтика, терапія і профілактика внутрішніх хвороб тварин : навч. посібник / М. І. Цвіліховський та ін. ; за ред. М. І. Цвіліховського. Київ : НУБіП України, 2023. 248 с.

Secondary

1. Stephen J. Ettinger, Edward C. Feldman, Etienne Cote Textbook of Veterinary Internal Medicine. Elsevier Health Sciences, 2016. 2736 p.

2. R.A. McPherson, M.R. Pincus Henry's Clinical diagnosis and management by laboratory methods. Elsevier. 2022. 1663 p.

3. Richard W. Nelson, C. Guillermo Couto Small Animal Internal

Medicine. Elsevier; 6th edition, 2019. 1608 p.

4. Leah Cohn, Etienne Cote Cote's Clinical Veterinary Advisor: Dogs and Cats. Mosby, 2019. 1680 p.

13. Information resources

1. <http://dspace.nubip.edu.ua:8080/jspui/> – Electronic library of NUBiP of Ukraine
2. <http://www.nbuuv.gov.ua/e-journals/nd/> – Scientific reports of the National University of Bioresources and Nature Management of Ukraine
3. <http://www.nbuuv.gov.ua/> – National Library of Ukraine named after V.I. Vernadskyi
4. <https://www.merckvetmanual.com/> Merck Veterinary Manual