MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SUMY NATIONAL AGRARIAN UNIVERSITY
Faculty of Veterinary Medicine
Department of Therapy, Pharmacology, Clinical Diagnostics and Chemistry

MODULE SYLLABUS

Special propaedeutics, therapy and prevention of internal diseases of animals

(required)

Implemented in the "Veterinary Medicine" Academic Program

Area of specialization 211 " Veterinary Medicine"

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

Sumy-2021

Author: _____ Ulko LG, Ph.D., Professor

Considered, approved and approved at the meeting of the department Therapy, pharmacology, clinical diagnosis and chemistry	protocol from 08.06.2021. № 15 The head Department _____ Ph.D., Professor Ulko LG

Agreed:
Guarantor of the Academic program _____ (L. Ulko)

Dean of the Faculty _____(O. Nechyporenko)

Review of the work program provided: _____ Sklyar OI

_____ Shkromada OI

Methodist of the Department of Education Quality, licensing and accreditation _____ (Бойченко Г.О.)

Registered in the electronic database: date: 09.08.2021

Syllabus review data:

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. MODULE OVERVIEW

1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT					
1.	Name OK	Special propaedeutics, therapy and prevention of internal diseases of animals			
2.	Faculty / department	Veterinary Medicine / Therapy, Pharmacology, Clinical Diagnostics and Chemistry			
3.	Status OK	Obligatory			
4.	Program / Specialty (programs), the component of which is OK for (to be filled in for mandatory OK)	Veterinary medicine / 211 «Veterinary medicine»			
5.	OK can be suggested for (to be filled in for selective OK)	-			
6.	Semester and duration of study	1, 2 semesters, 15+ 15 weeks			
7.	Number of ECTS credits	5			
8.	The total number of hours and their distribution	Contact work (classes)			Individual work
		Lectures	Practical / seminar	Laboratory	
9.	5- Semester	16		30	44
10.	6- Semester	-		30	30
11.	Language of instruction	English			
12.	Teacher / Coordinator of the educational component	Ulko Larysa Hryhorivna, veterinarian. n., professor			
11.1	Contact Information	Corp. 3, office 72 larisau@ukr.net			

		https://vet.snau.edu.ua/kafedri/kafedra-terapi%d1%97-farmakologi%d1%97-klinichno%d1%97-diagnostiki-ta-ximi%d1%97/sklad-kafedri/ulko- larisa-grigorivna-zav-kafedri-profesor-doktor-veterinarnix-nauk /
13.	General description of the educational component	The educational component is related to the general objectives of the OP and covers aspects of the formation of a modern specialist veterinarian in-depth theoretical knowledge and gaining practical skills from diagnosis, therapy and prevention of internal diseases of animals
14.	The purpose of the educational component	**Training of highly qualified specialists who are able to solve complex issues related to production conditions**general clinical and special methods of diagnosis of internal diseases of animals and correctly determine the set of therapeutic measures. Φformation of scientific clinical thinking, in-depth special knowledge and skills of innovative nature, professional ethics in outpatient reception, as well as the development of modern methods of diagnosis, treatment and prevention of non-communicable diseases in animals
15.	Prerequisites for studying OK, the relationship with other educational components of OP	The study of "Special propaedeutics, therapy and prevention of internal diseases of animals" is based on knowledge of clinical diagnostics, which allows to master the methods of animal research, to study the main symptoms of diseases and general principles of their diagnosis. Successful treatment of animals is impossible without knowledge of pharmacology, and disease prevention is based on knowledge of feeding and hygiene of animals. The subject is closely related to such clinical disciplines as epizootology, surgery, obstetrics and gynecology.
16.	The policy of academic integrity	No manifestations of academic dishonesty are allowed during the study of OK. Systems are tools for counteracting violations of academic integrityPlagiarism check algorithm. In case of violations, the response is in accordance with the regulations on the academic integrity of participants in the educational process in Sumy NAU (https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/). If a violation of academic integrity is detected, the completed task is not credited and is sent for re-execution.
17.	Course link in Moodle	https://cdn.snau.edu.ua/moodle/course/view.php?id=3649

2. CORRELATION BETWEEN MODULE LEARNING OUTCOMES (MLOs) AND PROGRAM LEARNING OUTCOMES (PLOs)

MLOs: On successful completion of the module the learner will be able to:	Program learning outcomes to be achieved by the OK (indicate the number according to the numbering given in the OP)[1]								As estimated by RND
	PLOs 1	PLOs 2	PLOs 3	PLOs 4	PLOs 6	PLOs 7	PLOs 10	PLOs 11	
MLOs 1. Understand the importance of discipline in shaping the worldview of a veterinarian. Adhere tosafety rules when working with small animals. Distinguish the concept of symptom, prognosis, diagnosis, syndrome. Be able to capture animals. Apply the scheme of clinical research of animals. Carry out registration and collection of anamnesis. Use methods of clinical and laboratory diagnosis of internal diseases of animals. Identify symptoms and syndromes based on auscultation of the heart. Determine the limits of relative and absolute cardiac dullness. Apply physical methods to study the state of the bronchopulmonary system. Analyze the results. To determine a set of treatment measures for diseases of the cardiovascular and respiratory systems. Master the methods of prevention and treatment of diseases of the cardiovascular and respiratory systems	+	+	+	+			+		– Oral control (participation in a discussion on the topic of the lecture) – Laboratory-practical control (performance of tasks in laboratory works). – Written control (performance of tasks on independent work, self-study of the topic as a whole or individual issues of independent work (test results, preparation of presentations, presentation report of self-developed material)) – Solving situational problems
MLOs 2. Applyscheme of clinical research of animals. Carry out registration and collection of anamnesis.**Conduct**clinical and laboratory and special studies for diseases of the gastrointestinal tract and liver. Identify the main symptoms, syndromes and know the principles of treatment of gastrointestinal diseases and diseases of the urinary system in animals. Know the topographic anatomy and structure of the urinary system in animals. Know the main symptoms, syndromes and principles of	+	+	+	+		+			– Oral control (participation in a discussion on the topic of the lecture) – Laboratory-practical control (performance of tasks in laboratory works). – Written control (performance of tasks on independent work, self-study of the topic as a whole or individual issues of independent work

diagnosis and treatment of endocrine diseases in animals. Have modern methods for diagnosing pathology of the endocrine system in animals. Identify the main symptoms. Diagnose metabolic disorders. Analyze and interpret the identified changes. Determine a set of therapeutic measures.									(test results, preparation of presentations, presentation report of self-developed material)) – Solving situational problems
MLOs 3. Know the main cardiorespiratory syndromes and principles of diagnosis and treatment of diseases of the cardiovascular and respiratory systems. **Understand** norm and pathology of the upper respiratory tract in different species of animals. Analyze the identified changes in the respiratory system of animals. To understand the results obtained as a result of auscultation and X-ray examination of the respiratory system. Distinguish between physiological and pathological respiratory noises.**Conduct**sounding of different species of animals. Understand the results of a clinical trialdigestive system. **Distinguish** norm and pathology at clinical research digestive system.Use clinical methods of research of animals with pathology of the digestive system and liver. Analyze and interpret the identified changes. Determine a set of therapeutic measures.	+	+	+	+	+			+	– Oral control (participation in a discussion on the topic of the lecture) – Laboratory-practical control (performance of tasks in laboratory works). – Written control (performance of tasks on independent work, self-study of the topic as a whole or individual issues of independent work (test results, preparation of presentations, presentation report of self-developed material)) – Solving situational problems
MLOs 4. Analyze and interpret the identified changes in the study of the nervous system of animals, in particular the behavior of animals **Distinguish** norm and pathology of the nervous system of animals, in particular the behavior of animals. Know the main symptoms, syndromes and principles of diagnosis, treatment and prevention of endocrinopathies. Know the anatomical and physiological features of the kidneys and urinary tract, classification of diseases of the urinary system. Identify the main syndromes, diseases of the urinary system. Determine a set of therapeutic measures.	+	+	+	+			+		– Oral control (participation in a discussion on the topic of the lecture) – Laboratory-practical control (performance of tasks in laboratory works). – Written control (performance of tasks on independent work, self-study of the topic as a whole or individual issues of independent work (test results, preparation of presentations, presentation report of

									self-developed material)) – Solving situational problems

3. MODULE INDICATIVE CONTENT

Topic. List of issues to be addressed within the topic	Distribution within the general budget of time				Recommended Books[2]
	Classroom work			Individual work	
	Luke	P.z / semin. with	Lab. with.		
Topic 1. Introduction. The subject and content of the discipline, its structural and logical scheme, importance in the formation of a veterinarian.	2		4	4	[1,3, 7, 12,13]
Topic 2. Special propaedeutics of animals for diseases of the cardiovascular system. Special propaedeutics for diseases of the respiratory system.	2		8	8	[2,5, 9, 16, 18, 20]
Topic 3. Special propaedeutics for diseases of the digestive system and liver. Special propaedeutics for diseases of the urinary system	2		8	10	[1, 2, 6, 11, 17, 21]
Topic 4. Special propaedeutics for diseases of the endocrine system. Special propaedeutics for metabolic diseases. Special propaedeutics for diseases of the blood system. Special propaedeutics for diseases of the immune system, autoimmune diseases and allergies	2		8	10	[1, 3, 8, 13, 15, 19]
Topic 5. Clinical cardiology. Clinical pulmonology. Classification of diseases of the respiratory system. The main causes and mechanisms of development	2		8	10	[3, 5, 6, 8, 13]
Topic 6. Clinical gastroenterology and hepatology. Classification of diseases. The main causes and mechanisms of development. Principles of therapy and prevention	2		8	10	[4, 7, 10, 16, 21]
Topic 7. Clinical nephrology and urology. Clinical endocrinology. Special prevention and therapy of	2		8	14	[2, 6, 9, 12, 17, 20]

animals with metabolic diseases. Clinical immunology and immunopathology. Special prevention and therapy of animals with diseases of the blood system					
Topic 8. Clinical neurology. Diseases of the nervous system: (Vascular diseases of the nervous system. Diseases of the brain and spinal cord and meninges of inflammatory and dystrophic nature. Transmissible spongiform encephalopathies. Functional nervous diseases)	2		8	8	[1, 3, 5, 8, 19]
Together	16		60	74	

4. TEACHING AND LEARNING METHODS

MLOs	**Teaching methods (directed study)**	**Hours**	**Learning methods (self-directed study)**	**Hours**
MLOs 1.	Survey of students with an explanation of key issues of the subject. Interactive discussion of the topic in the form of a discussion, which includes information presented in diagrams and drawings, answers to students' questions. Mastering practical skills, methods of laboratory work (the concept of symptom, prognosis, diagnosis, syndrome, fixation of animals). Work with animals / biological materials.	16	Independent processing of materials on the topic. Memorization of theoretical material, observation. On the basis of the studied and processed material Fr.drawing up a synopsis of independent work Acquaintance with the information of official sites on a subject of employment or a separate question. Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals).	16
MLOs 2.	Survey of students with an explanation of key issues of the subject. Interactive discussion of the topic in the form of a discussion, which includes information presented in diagrams and drawings, answers to students' questions. Mastering practical skills, methods of laboratory work (the concept of symptom, prognosis, diagnosis, syndrome, fixation of	20	Independent processing of materials on the topic. Memorization of theoretical material, observation. On the basis of the studied and processed material Fr.drawing up a synopsis of independent work Acquaintance with the information of official sites on a subject of employment or a separate question. Solving situational tasks (orally: registration and collection of anamnesis, use	20

	animals). Work with animals / biological materials.		of the obtained data for further research of animals).	
MLOs 3.	Survey of students with an explanation of key issues of the subject. Interactive discussion of the topic in the form of a discussion, which includes information presented in diagrams and drawings, answers to students' questions. Mastering practical skills, methods of laboratory work (the concept of symptom, prognosis, diagnosis, syndrome, fixation of animals). Work with animals / biological materials.	20	Independent processing of materials on the topic. Memorization of theoretical material, observation. On the basis of the studied and processed material Fr.drawing up a synopsis of independent work Acquaintance with the information of official sites on a subject of employment or a separate question. Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals).	20
MLOs 4.	Survey of students with an explanation of key issues of the subject. Interactive discussion of the topic in the form of a discussion, which includes information presented in diagrams and drawings, answers to students' questions. Mastering practical skills, methods of laboratory work (the concept of symptom, prognosis, diagnosis, syndrome, fixation of animals). Work with animals / biological materials.	20	Independent processing of materials on the topic. Memorization of theoretical material, observation. On the basis of the studied and processed material Fr.drawing up a synopsis of independent work Acquaintance with the information of official sites on a subject of employment or a separate question. Solving situational tasks (orally: registration and collection of anamnesis, use of the obtained data for further research of animals).	18

5. ASSESSMENT

5.1. Diagnostic assessment

5.2. Summative assessment

5.2.1. Intended learning outcomes methods:

№	Methods of summative evaluation	Points / Weight in the overall score	Date of compilation
1.	Current control: Thematic survey Execution of tasks in laboratory-practical classes	40 points / 40%	4… 13 weeks
2.	Protection of the project on the study of animal behavior, problem solving. demonstrative performance of research tasks, solving situational problems, presentation and defense of a practical task	15 points / 15%	4… 13 weeks
3.	Periodic control, computer testing	15 points / 15%	8 weeks
4.	Multiple choice test (or written work)	30 points / 30%	Week 16, on schedule

5.2.2. Grading criteria

Component	Unsatisfactorily	Satisfactorily	Okay	Perfectly
Current control: thematic survey performing tasks in laboratory-practical classes	**<20 points** Task requirements not met.	**21-30 points** Most of the requirements are met, but some components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue. Partially reproduced knowledge on the basis of directly presented material within the program.	**31-39 points** Most of the requirements are met, but some components are missing. Reproduced knowledge of directly presented material within the program with some evidence of a broader study.	**40 points** All requirements of the task are fulfilled, creativity, thoughtfulness is shown, own solution of a problem is offered. Reproduced knowledge obtained outside the directly presented material within the program.
Periodic control, computer	**<3 points** Task requirements	**4-10 points** Most requirements	**11-14 points** Most of the requirements	**15 points** All requirements of the task are

testing Protection of the project on the study of animal behavior, problem solving. demonstrative performance of research tasks, solving situational problems, presentation and defense of a practical task	not met	are met, but some components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue	are met, but some components are missing	fulfilled, creativity, thoughtfulness is shown, own solution of a problem is offered
Multiple choice test (or written work)	**<11 points**	**12-20 points**	**26-29 points**	**30 points**
	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	Most of the requirements are met, but some components are missing	All requirements of the task are fulfilled, creativity, thoughtfulness is shown, own solution of a problem is offered

5.3. Formative assessment

№	**Elements of formative assessment**	**Date**
	1 semester	
1.	Oral feedback after studying topics 1-3, 4-8	3 weeks
2.	Written feedback on topics 1-3	Within 1 week after assembly
3.	Testing after studying topics 4-8	8 weeks
4.	Intermediate control	According to the schedule
5.	Current control (testing, generalization of points) 15 weeks	15 weeks
	2nd semester	
6.	Oral feedback after processing topics	3 weeks
7.	Written feedback after processing topics	Within 1 week after

		assembly
8.	Testing after studying topics	8 weeks
9.	Multiple choice exam (or written work), on schedule	According to the schedule (15 weeks)

6. LEARNING RESOURCES

6.1.Main sources

1. Clinical diagnosis of animal diseases / [Levchenko VI, Vlizlo VV, Kondrakhin IP etc.]; For order. VI Levchenko. - Bila Tserkva, 2017. - 544 p.

2. Clinical diagnosis of internal diseases of animals / [VI Levchenko, VV Vlizlo, IP Kondrakhin and others]; for order. VI Levchenko. - Bila Tserkva, 2004. - 608 p.

3. Veterinary clinical biochemistry / [VI Levchenko, VV Vlizlo, IP Kondrakhin and others]; for order. VI Levchenko and VL Галяса. - Bila Tserkva, 2002. - 400 p.

4. Internal diseases of animals / [Levchenko VI, Kondrakhin IP, Vlizlo VV etc.]; For order. VI Levchenko. - Bila Tserkva, 2012. - Part 1. - 528 p.

5. Internal diseases of animals / [Levchenko VI, Vlizlo VV, Kondrakhin IP etc.]; For order. VI Levchenko. - Bila Tserkva, 2015. - Part 2. - 610 s.

6. Methods of laboratory clinical diagnosis of animal diseases / [VI Levchenko, VI Golovakha, IP Kondrakhin and others]; for order. VI Levchenko. - К .: Урожай, 2010. - 470 с.

7. Kondrakhin IP Alimentary and endocrine diseases of animals. M .: Agropromizdat, 2009. - 256 p.

8. Sudakov MO, Bereza VI, Pogursky IG etc.; for order. MO Sudakova Microelementosis of farm animals. M .: Agropromizdat, 2001. - 144 p.

9. Urzaev NA, Nikitin V.Ya. Endemic diseases of farm animals. M .: Agropromizdat, 2000. - 272 p.

10. Kondrakhin IP, Kurilova NV Clinical laboratory diagnosis in veterinary medicine. M .: Agropromizdat, 2005 - 346 p.

1. Methodical support

5. Ulko LG Course of lectures on the subject "Special propaedeutics, therapy and prevention of internal diseases of animals" for graduate students majoring in "Veterinary Medicine. 105 s. (Minutes № 2 of November 26, 2014).

6. Ulko LG Methodical recommendations on educational practice in the discipline "Special propaedeutics, therapy and prevention of internal diseases of animals" for master students in the specialty "Veterinary Medicine". 25 s. (Minutes № 2 of November 26, 2014).

7. Ulko LG, Musienko VM, Sklyar OI [etc ..] Safe methods of fixation and methods of handling animals. Methods of clinical research of animals. Methodical instructions for laboratory-practical classes in the discipline "Special propaedeutics, therapy and prevention of internal diseases of animals". 30 s. (Minutes № 3 dated March 28, 2015).

8. Ulko LG, Sklyar OI, Musienko VM [etc ..] Research of the cardiovascular system Guidelines for the discipline "Special propaedeutics, therapy and prevention of internal diseases of animals." 26 s. (Minutes № 3 dated March 28, 2015).

9. Ulko LG Propaedeutics of internal medicine as an introduction to the clinic of internal animal diseases. Methodical recommendations for conducting laboratory-practical classes in the discipline "Special propaedeutics, therapy and prevention of internal diseases of animals" for students - master's degree EQL "Master". 83 s. (Minutes № 3 dated March 28, 2015).

10. Ulko LG Diagnosis of diseases of the cardiovascular system. Methodical recommendations for laboratory-practical classes for students - masters (EQL "Master") of the Faculty of Veterinary Medicine in the discipline "Special propaedeutics, treatment and prevention of internal diseases of animals." 38 s. (Minutes № 3 dated March 28, 2015).

1. Additional sources and Internet resources:

11. Litvin VP, Bereza VI, Skibitsky VG, etc. Diseases of young farm animals: Handbook. K .: Urozhay, 2002. 168 s.

12. Levenko VI, Sudakov NA. Haruta GG etc. Veterinary medical examination of farm animals: Handbook; Ed. VI Levchenko K .: Harvest. 2001.304 s.

13. Levchenko VI, Kondrakhin IP, Vlyzlo VV etc. Internal diseases of animals; For order. VI Levchenko. Bila Tserkva, 2001. Part 2. 544 s.

14. Shcherbakov GG, Korobov AV, Anokhin BM etc. Internal diseases of animals .; Under. common ed. GG Shcherbakova, AV Korobova. SPb .: Lan, 2002. 736 s.

15. Sudakov MO, Tsvilikhovsky MI, Birch VI etc. Internal diseases of animals; For order. M.O.Судакова. K .: Meta, 2002. 352 s.

16. Tsvilikhovsky MI, Birch VI, Sichkar VS etc. Internal diseases of animals: Workshop; Aristei, 2004. 140 p.

17. Sharabrin IG, Alikaev VA, Zamarin LG etc. Internal non-communicable diseases of farm animals; Ed. IG Sharabrina. M .: Agropromizdat, 2005. 527 s.

18. Anokhin BM, Danilevsky VM, Zamarin LG, etc. Internal non-communicable diseases of farm animals; Ed. VM Danilevsky. M .: Agropromizdat, 2001. 575 s.

19. Levchenko VI, Kondrakhin IP, Bogatko LM etc. General therapy and prevention of internal diseases of animals: Workshop; For order. VI Levchenko. Bila Tserkva, 2000. 224 p.

20. Levchenko VI, Vlizlo VV, Kondrakhin IP etc. Clinical diagnosis of internal diseases of animals; For the order of VI Levchenko. Bila Tserkva, 2004. 608 p.

21. Kuzovkin EM, Kanyuka OI, Vasiliev SI Handbook of modern drugs in veterinary medicine. Kharkiv: Espada, 2002. 448 p.

6.3. Software

1. MOODL platforms; "ZOOM"; "Viber"; Facebook.

Додаток

Рецензія на Робочу програму (силабус)

Параметр, за яким оцінюється робоча програма (силабус) освітнього компонента гарантом або членом проєктної групи	**Так**	**Ні**	**Коментар**
Результати навчання за освітнім компонентом (ДРН) відповідають НРК	+		
Результати навчання за освітнім компонентом (ДРН) відповідають передбаченим ПРН (для обов'язкових ОК)	+		
Результати навчання за освітнім компонентом дають можливість виміряти та оцінити рівень їх досягнення	+		

Член проектної групи ОП _____ _____

Параметр, за яким оцінюється робоча програма (силабус) освітнього компонента викладачем відповідної кафедри	**Так**	**Ні**	**Коментар**
Загальна інформація про освітній компонент є достатньою	+		
Результати навчання за освітнім компонентом (ДРН) відповідають НРК	+		
Результати навчання за освітнім компонентом (ДРН) дають можливість виміряти та оцінити рівень їх досягнення	+		
Результати навчання (ДРН) стосуються компетентностей студентів, а не змісту дисципліни (містять знання, уміння, навички, а не теми навчальної програми дисципліни)	+		
Зміст ОК сформовано відповідно до структурно-логічної схеми	+		
Навчальна активність (методи викладання та навчання) дає змогу студентам досягти очікуваних результатів навчання (ДРН)	+		
Освітній компонент передбачає навчання через дослідження, що є доцільним та достатнім для відповідного рівня вищої освіти	+		
Стратегія оцінювання в межах освітнього компонента відповідає політиці Університету/факультету	+		
Передбачені методи оцінювання дозволяють оцінити ступінь досягнення результатів навчання за освітнім компонентом	+		
Навантаження студентів є адекватним обсягу освітнього компонента	+		
Рекомендовані навчальні ресурси є достатніми для досягнення результатів навчання (ДРН)	+		
Література є актуальною	+		

Рецензент (викладач кафедри) _____ _____ _____

(назва) (посада, ПІБ) (підпис)