Ministry of Education and Science of Ukraine
Sumy National Agrarian University
Faculty of Veterinary Medicine
Department of Epizootology and Parasitology

Work program (syllabus) of the educational component
Anti-epizootic measures in animal husbandry

mandatory
(mandatory/optional)
It is implemented within the educational program
"Veterinary Medicine"
(name)
in specialty 211 "Veterinary Medicine"
(code, name)

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

Sumy - 2023

Developer: **Kasianenko O.I.,** doctor of veterinary sciences, professor.
(signature) (surname, initials) (degree and title, position)

Considered, approved and approved at the meeting of the departmentepizootology and parasitology (name of department)	protocol dated June 19, 2023 No. 20		
	Head department	(signature)	**Kasianenko O.I.** (surname, initials)

Agreed:

Guarantor of the educational program _____ **Petrov R.V.**
(signature) (surname)

Dean of the faculty where the educational program is implemented

_____ Nechiporenko O.L.
(signature) (surname)

Review of the work program (attached) provided: _____
(surname)

_____
(surname)

Methodist of the Education Quality Department,
licensing and accreditation _____ (Hagia Bapaniu)
(signature) (surname)

Registered in the electronic database: date: 26.06 2023.

Information on viewing the work program (syllabus):

The academic year in which the changes are made	The number of the annex to the work program with a description of the changes	The changes were reviewed and approved		
		Date and number of the protocol of the meeting of the department	Head of Department	Guarantor of the educational program

GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

1.	The name is OK	Anti-epizootic measures in animal husbandry
2.	Faculty/department	Faculty of Veterinary Medicine / Department of Epizootology and Parasitology
3.	The status is OK	Mandatory
4.	Program/Specialty (programs), which is a component of the OK for (to be filled in for mandatory OKs)	211 Veterinary medicine
5.	OK can be offered for (to be completed for selective OKs)	
6.	NRK level	7th level
7.	Semester and duration of study	semester 10 (s) 11 (o), weeks 15
8.	Number of ECTS credits	3.0
9.	The total number of hours and their distribution	Contact work (class): Lectures 4 / 8; Practical/seminar -; Laboratory 8 / 14; Independent work 78 / 68
10.	Language of education	Ukrainian
11.	Teacher/Coordinator of the educational component	doctor of veterinary sciences, professor Kassich V.Yu..
11.1	Contact Information	Corp. 3, room 3, Phone: 0960690902; viber 0956153902 **oksana_kasjanenko@ukr.net**
12.	General description of the educational component	The educational component of the discipline "Anti-epizootic measures in animals" studies and provides knowledge of the objective laws of the processes of emergence, development, spread and extinction of infectious diseases of animals, the basics of veterinary sanitation, develops rational measures for the diagnosis, prevention, regulation and elimination of epizootics.
13.	The purpose of the educational component	**The purpose of teaching**academic discipline "Anti-epizootic measures in animals" is: a scientific discipline that studies issues of general and special epizootology, objective regularities of the processes of occurrence, development, spread of the main infectious diseases of animals and poultry, clinical manifestations, patho-anatomical changes, issues of diagnosis, prevention and control of the main zoonotic diseases , organizational forms of veterinary medicine, organization of veterinary events, technological methods of work of veterinary medicine specialists, veterinary and livestock enterprises, institutions and organizations.

14.	Prerequisites for studying OK, connection with other educational components of OP	The educational component is based on the study of OK: Internal diseases of animals Epizootology and infectious diseases
15.	Policy of academic integrity	Any manifestations of academic dishonesty are not allowed during the study of OK. Systems are tools for countering violations of academic integrityPlagiarism check algorithm.In the event of violations, the response takes place in accordance with the regulatory documentation regarding the academic integrity of the participants of the educational process at the 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 counted and sent for re-execution.

2. LEARNING RESULTS UNDER THE EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH PROGRAM LEARNING OUTCOMES

Study results for OK: After studying the educational component, the student is expected to be able to conduct epizootological monitoring, analyze and apply its results in practice, establish a complex diagnosis of a certain infectious disease based on the results of epizootological, clinical, allergic, patho-anatomical and laboratory studies, develop and implement technological schemes of diagnosis, prevention and control of zoonotic diseases based on the legislative framework of veterinary legislation, namely:	Program learning outcomes, to be achieved by the OK (indicate the number according to the numbering given in the OP)									As estimatedRND
	PRN 1	**PRN 2**	**PRN 3**	**PRN 4**	**PRN 5**	**PRN 6**	**PRN 7**	**PRN 10**	**PRN 11**	
DRN 1. Carry out diagnostics, prevention and eradication of viral, bacterial and fungal highly contagious and emergent diseases - zoonoses. Implement veterinary and sanitary measures that contribute to the efficiency of animal husbandry by conducting timely and effective diagnostics, treatment, prevention and rehabilitation, including measures of specific prevention, disinfection, disinsection, deratization;		+	+	+	+		+			- survey of theoretical questions, - performance of tasks in laboratory-practical classes, - testing, performance of tasks of independent work

DRN 2. Apply modern methods of diagnosis, prevention, and elimination of viral, bacterial, and fungal diseases of cattle and cattle, implement and apply the principles of conducting veterinary, sanitary, and health measures that contribute to the effective management of animal husbandry;	+	+			+		+		+	- survey of theoretical questions, - performance of tasks in laboratory-practical classes, - testing, performance of tasks of independent work
DRN 3. Use the methods of diagnosis and prevention of viral, bacterial, fungal diseases of pigs, implement and apply the principles of conducting veterinary and sanitary preventive, anti-epizootic and health measures in pig farming; methods of diagnosis, treatment and elimination of infectious diseases of pigs;	+	+			+		+		+	- survey of theoretical questions, - performance of tasks in laboratory-practical classes, - testing, performance of tasks of independent work
DRN 4. Use methods of diagnosis and elimination of viral, bacterial, fungal diseases of horses, implement and apply the principles of conducting veterinary, sanitary and health measures; principles of preventive, anti-epizootic and health measures in horse breeding.	+	+		+			+		+	- survey of theoretical questions, - performance of tasks in laboratory-practical classes, - testing, performance of tasks of independent work
DRN 5. Analyze the main clinical manifestations, patho-anatomical signs, the results of laboratory tests, establish a diagnosis, carry out measures for the prevention and improvement of the main infectious diseases of dogs, cats, fur animals, fish, bees and poultry.		+	+		+		+		+	- survey of theoretical questions, - performance of tasks in laboratory-practical classes, - testing, performance of tasks of independent work

3. CONTENTS OF THE EDUCATIONAL COMPONENT (COURSE PROGRAM)

Topic. List of issues to be considered within the topic	Distribution within the general limits time budget			Recommended Books
	Aud. work		Independent work)	
	Lk	Lab. with.		
Topic 1. Preventive measures for particularly dangerous zoonoses with an acute course.	2	4	14	9,8,9,10,11,15, 31
Topic 2. Preventive measures against zoonoses with a chronic course.	2	4	14	4,6,8,9,10,11,15,16, 25
Topic 3. Preventive measures against infectious diseases of cattle.	2	2	14	2,4,6,8,9,10,12,14,16
Topic 4. Preventive measures against infectious diseases of pigs.	2	2	14	4,6,8,9,10, 11,12,15,30
Topic 5. Preventive measures against infectious diseases of horses.	-	2	12	4,6,10,12,14,16, 32
In total 10 semestr	**4**	**8**	**78**	
Topic 6. Factoral diseases of the young animals	2	4	14	2,4,6,8,9,10,12,14,16
Topic 7. Diseases of dogs, cats and fur animals.	2	4	14	2,4,6,8,9,10,12,14
Topic 8. Avian Diseases	2	2	14	2,4,6,8,9,10,12,14,16
Topic 9. Bee diseases	2	2	14	2,4,6,8,9,10,12,14 16
Topic 10. Fish Diseases	-	2	12	2,4,6,8,9,10,14,16
In total 11 semestr	**8**	**14**	**68**	

4. TEACHING AND LEARNING METHODS

DRN	**Teaching methods**(work to be carried out by the teacher during classroom classes, consultations)	**Number of hours**	**Teaching methods**(what types of educational activities should the student perform independently)	Number of hours
DRN 1. Viral, bacterial and fungal highly contagious and emergent diseases of zoonotic animals (zooanthroponosis).	**Teaching methods by source of knowledge:** *Verbal:*story, explanation, conversation (heuristic and reproductive), lecture, instruction. *In person:*demonstration, illustration, observation.	6	**Learning methods by source of knowledge:** *Verbal*: work with a book (reading, retelling, writing, taking notes, making tables, graphs, reference notes), In-person: observations. **Methods of learning according**	14

Veterinary and sanitary measures that contribute to the efficiency of animal husbandry, methods of diagnosis, treatment and health measures, including specific prevention, disinfection, disinsection, deratization;	**Active methods**:(use of technical teaching aids, use of educational and control tests) **Interactive teaching methods**:(use of multimedia technologies, electronic spreadsheets. •		**to the nature of the logic of cognition**(analytical, synthesis methods, inductive method,deductive method, traductive method). **Active methods** (brainstorming, solving crosswords, debates, round tables, binary classes, business and role-playing games, group studies). **Interactive learning technologies** (use of multimedia technologies, dialogic learning, student cooperation (cooperation)	
DRN 2. Methods of diagnosis, treatment, and elimination of viral, bacterial, and fungal diseases of cattle, principles of conducting \eterinary, sanitary, and health measures that contribute to the effective management of animal husbandry;	**Teaching methods by source of knowledge:** *Verbal:* story, explanation, conversation (heuristic and reproductive), lecture, instruction. *In* /?erso«:demonstration, illustration, observation. **Active methods**:(use of technical teaching aids, yse of educational and control tests) **Interactive teaching methods**:(use of multimedia technologies, electronic spreadsheets.	**6**	**Learning methods by source of knowledge:** *Verbal*: work with a book (reading, retelling, writing, taking notes, making tables, graphs, reference notes), In-person: observations. **Methods of learning according to the nature of the logic of cognition**(analytical, synthesis methods, inductive method,deductive method, traductive method). **Active methods** (brainstorming, solving crosswords, debates, round tables, binary classes, business and role-playing games, group studies). **Interactive learning technologies** (use of multimedia technologies, dialogic learning, student cooperation (cooperation).	**14**
DRN 3Methods of diagnosis, treatment , prevention and elimination of viral, bacterial, fungal diseases of the DRH, principles of conducting veterinary- sanitary and health- improving measures that contribute to the effective management of animal husbandry;	**Teaching methods by sourct of knowledge:** *Verbal:story*, explanation^ conversation (heuristic and reproductive), lecture, instruction. *In* person-demonstration, illustration, observation. **Active methods**:(use of technical teaching aids, use of educational and control tests) **Interactive teaching methods**:(use of multimedia technologies, electronic spreadsheets.	**6**	**Learning methods by source of knowledge:** *Verbal*: work with a book (reading, retelling, writing, taking notes, making tables, graphs, reference notes), In-person: observations. **Methods of learning according to the nature of the logic of cognition**(analytical, synthesis methods, inductive method,deductive method, traductive method). **Active methods** (brainstorming, solving crosswords, debates, round tables, binary classes, business and role-playing games, group studies). **Interactive learning technologies** (use of multimedia technologies, dialogic learning,	**14**

			student cooperation (cooperation)	
DRN 4.Methods of diagnosis and elimination of viral, bacterial, fungal diseases of pigs, principles of conducting veterinary, sanitary and health measures; principles of preventive anti- epizootic and health measures in pig farming; methods of diagnosis, treatment and elimination of infectious diseases of pigs;	**Teaching methods by source of knowledge:** *Verbal:*story, explanation, conversation (heuristic and reproductive), lecture, instruction. *In* /^sow/demonstration, illustration, observation. **Active methods**:(use of technical teaching aids, use of educational and control tests) **Interactive teaching methods**:(use of multimedia technologies, electronic spreadsheets.	6	**Learning methods by source of knowledge:** *Verbal*: work with a book (reading, retelling, writing, taking notes, making tables, graphs, reference notes), In-person: observations. **Methods of learning according to the nature of the logic of cognition**(analytical, synthesis methods, inductive method,deductive method, traductive method). **Active methods** (brainstorming, solving crosswords, debates, round tables, binary classes, business and role-playing games, group studies). **Interactive learning technologies** (use of multimedia technologies, dialogic learning, student cooperation (cooperation)	14
DRN 5. Methods of diagnosis and elimination of viral, bacterial, fungal diseases of horses, principles of conducting veterinary, sanitary and health measures; principles of preventive, anti- epizootic and health measures in horse breeding. Organization, planning, and logistical support of veterinary events in horse breeding.	**Teaching methods by source of knowledge:** *Verbal:*story, explanation, conversation (heuristic and reproductive), lecture, instruction. *In person:*demonstration, illustration, observation. **Active methods**:(use of technical teaching aids, use of educational and control tests) **Interactive teaching methods**:(use of multimedia technologies, electronic spreadsheets.	2	**Learning methods by source of knowledge:** *Verbal*: -work with a book (reading, retelling, writing, taking notes, making tables, graphs, reference notes), In-person: observations. **Methods of learning according to the nature of the logic of cognition**(analytical, synthesis methods, inductive method,deductive method, traductive method). **Active methods** (brainstorming, solving crosswords, debates, round tables, binary classes, business and role-playing games, group studies). **Interactive learning technologies** (use of multimedia technologies, dialogic learning, student cooperation (cooperation)	12

5- EVALUATION BY THE EDUCATIONAL COMPONENT

5.1. Diagnostic assessment (specified as necessary) 5.2. Summative assessment

5.2.1. To assess the expected learning outcomes, it is provided

No	Methods of summative assessment	Points / Weight in the overall assessment	Compilation date
1.	Thematic survey	***35 points /35%***	Weekly
2.	Performance of tasks in laboratory-practical classes	***35 points /35 %***	According to the schedule
3.	Testing	***15 points/15%***	During 7-8 weeks
4.	A report with a presentation on the topic of independent study of the discipline	***5 points / 5%***	According to the module delivery schedule

5.2.2. Evaluation criteria

Component[1]	**Unsatisfactoril y**	**Satisfactorily**	**Fine**	**Perfectly[2]**
Thematic survey	***<-12 points***	***12-15 points***	***15-18 points***	***20 points***
	The student can reproduce only individual fragments from the course.	**Most of the requirements are met, but individual components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue**	**All requirements of the task have been fulfilled**	**All the requirements of the task were met, creativity, thoughtfulness was demonstrated, and an own solution to the problem was proposed**
Performance of tasks in laboratory-practical classes	***<12 points***	***12-15 points***	***15-18 points***	***20 points***
	Task requirements not met »	**Most of the tasks were completed withusing based on the main theoretical provisions, the student explains with difficulty the rules for solving laboratory-practical tasks. The performance of individual control tasks is significantly formalized, there is no deep understanding of** the **work %**	The student has mastered the basic material, and understands and performs laboratory-practical tasks, has suggestions regarding the direction of their solutions. Understands the main provisions that are decisive in the course, can solve similar tasks to those discussed	The applicant implements the theoretical material of the discipline while performing laboratory and practical work, is able to analyze and compare the results obtained on the basis of the knowledge, skills, and practical skills acquired from this discipline

[1] Specify the summative assessment component

[2]Specify the distribution of points and the criteria determining the level of assessment

			with the teacher, but allows a small number of inaccuracies.	
Multiple choice test	*< 5 points*	*6-9 points*	*10-13 points*	*14-15 points*
	The student gives the correct answer to several questions (< 33% of correct answers).	The student has certain knowledge provided for in the discipline program, possesses the main provisions being studied and gives the correct answer to several questions (34- 59% of correct answers).	In general, the student has a good command of the material, knows the main provisions of the material, and gives the correct answer to several questions (60-89% of correct answers).	The student demonstrates full and solid knowledge of the educational material in the amount corresponding to the discipline program, answers the test questions correctly (90- 100% of correct answers).
Preparation and presentation report of self- developed material	*<9 points*	*10-19 points*	*20-39 points*	*40-45 points*
	The student lacks complete understanding of the subject material. The student did not complete the independent processing of the maferial.	Despite the fact that the student completed the program of the academic discipline, but individual components were missing or insufficiently worked out, the * student worked passively.	Knows the main provisions that are of decisive importance in performing independent work / individual tasks. Errors in the answers are not significant.	All requirements and tasks were fulfilled, creativity and thoughtfulness were demonstrated, and an own solution to the problem was proposed.

5.3. Formative assessment:

To assess the current progress in learning and understand the directions for further improvement is provided

No	**Elements of formative assessment**	**Date**
1	Verbal feedback after studying topics 1-3, 4-6	3 week
2	Written feedback after studying topics 4-5	8 week
3	Written feedback from the teacher while working on laboratory-practical tasks	Within 1 week of execution
4	Verbal feedback from the teacfter after dstories with a presentation on the topic of independent study of the discipline	During classes

6. EDUCATIONAL RESOURCES (LITERATURE)

Methodical support

1. Epizootology and infectious diseases. Special epizootology. "The fight against zoonoses as the basis of biological security of Ukraine". Kassich V.Yu., Volosyanko O.V. Methodical manual for students of specialties 211 - "Veterinary medicine", 212 - "Veterinary hygiene and expertise". Educational level: "bachelor", "master" of veterinary medicine. Sumy, 2020. - 178 p. Approved by the methodical board of SNAU, protocol No. 9 dated March 10, **2020.**
2. Bacterial diseases of animals. Study guide for specialties: "epizootology and infectious diseases", "veterinary technologies for diagnosis and prevention of infectious diseases" for students studying at the educational and qualification level "bachelor", "specialist", "master", doctors and paramedics of veterinary medicine. Composers: Kassych V.Yu., Rebenko G.Y., Kassych A.V., Baydevlyatov Yu.A. Approved by the methodical council of SNAU, protocol No. 7 of April 12, 2016.
3. Veterinary phthisiology. Microbiology and pathogenesis of tuberculosis in modern conditions. Textbook for students of the faculties of veterinary medicine. Compilers: V. Yu. Kassich, G. I. Rebenko, O. V. Kassich, Yu. A. Baidevlyatov, Reviewers T. I. Fotina, A. Y. Kraevskyi. Sumy. 2015. - 144 p. Approved by SNAU method board, protocol No. 3 dated 03/28/2015.
4. Quality management in biotechnological production. Study guide for students of "Veterinary Medicine", "Pharmacy" specialties, as well as employees of the biological industry and students of advanced training courses. Composers: Kassych V.Yu., Gladukh E.V., Rebenko G.I., Kassych A.V., Baydevlyatov Yu.A. Approved by the methodical council of SNAU, protocol No. 3 dated March 28, 2015.
5. Special epizootology. Diseases of cattle (viral, prion and rickettsial diseases). Composers: Kassych V.Yu., Krasochko P.A., Leonenko O.G. Textbook. Educational level: "bachelor", "master" of veterinary medicine. Sumy, 2019. Approved by the methodical council of SNAU, protocol No. 5 dated April 8, 2019.
6. Biotechnology of veterinary immunobiological preparations. Composers: Kassych V.Yu., Voronin E.S., Fedotov A.E., Golovko A.N., Ushkalov V.A., Kassych A.V. Study guide for students in specialties 211 - "Veterinary medicine", 212 - "Veterinary hygiene and expertise" Educational level: "bachelor", "master" of veterinary medicine. Sumy, 2017. Approved by the methodical board of SNAU, protocol No. 3 dated 12.12.2017.
7. Kassich V*.Yu. Immunology of mammals / V. Yu. Kassich and others. Methodical manual. Sumy, 2018. Approved by the methodical board of SNAU, protocol No. 2 dated March 27, 2018.
8. Study guide. "Biotechnology of veterinary immunobiological preparations" for students from the specialty 211 - "Veterinary Medicine", 212 - "Veterinary Hygiene, Sanitation and Expertise", full-time education, educational level: bachelor; Master of Veterinary Medicine. Compiler: Doctor of Veterinary Medicine, Professor V.Yu. Kassich, Protocol No. 8 of February 22, 2021, approved by the Scientific Council of SNAU -117 pages.

Recommended Books

9. Rebenko G.I., Hurova T.V., Vershniak T.V. Methodological recommendations "Sanitary threat of rodents and measures to combat them." — Sumy, 2010 - 48p.
10. Rebenko G.I. Educational manual "Glossary of terms of general epizootology" - Sumy, 2010- 115p.
11. Kassich V.Yu., Rebenko G.I. Methodical recommendations "Prevention of animal factor diseases" — Sumy, 2010 - 23 p.
12. Rebenko G.I., Hurova T.V., Vershniak T.V. Methodical recommendations "Biological waste and methods of its decontamination." - Sumy, 2011 - 34 p.
13. Kassich V.Yu., Rebenko G.I., Methodical recommendations "Emergent and exotic

infections." - Sumy, 2011 - 16 p.
14. Rebenko G.I. Natural focal infectious diseases. Tutorial. - Sumy, 2012 - 52 p.
15. Kassich V.Yu., Rebenko G.I. Antimicrobial therapy for infectious diseases of animals. Tutorial. - Sumy, 2013 - 50 p.

Basic

16. B.M. Yarchuk, P.I. Verbytskyi, V.P. Lytvyn, and others. General epizootology. Bila Tserkva, 2002 - 656 p.
17. V.P. Lytvyn, A.F. Yevtushenko et al. Workshop on general epizootology. K.: VC NAU, 2003 - 175 p.
18. Bakulov I. A. et al. Guide to general epizootology. - M., "Colossus", I979.-186p.
19. Karysheva A.F. Special epizootology. K.: "higher education", 2002. - 701p.
20. V.P. Lytvyn, L.V. Oliynyk, L.E. Kornienko, B.M. Yarchuk. Factor diseases of agricultural animals. White Church. 2002.- 368 p.
21. Bozhko H.K. Organization of antiepizootic measures. - Kyiv. "Harvest" 1974.- 229 p.
22. R. Kravtsiv, Ya. Zlonkevich, B. Korzh, I. Oleksyuk. Infectious diseases of cattle. Lviv, - 2001. - 394p.
23. 6. Nedosekov V.V. Haunhorst E., Sytnik V.A. Organization and economics of veterinary work. Odesa educational edition, Helvetyka publishing house. P.405.
24. 7. Directory of the state inspector of veterinary medicine on the state border of Ukraine / Yatsenko I.V., Babaruk A.V., Fotina G.A. Kharkiv, Style-Izdat.
25. **Auxiliary**
26. Verbytskyi P.I., Dostoevskyi P.P., Busol V.O. etc. Handbook of a doctor of veterinary medicine. - K.: Urozhai, 2004.- 1280 p.
27. Infectious diseases of animals / B.F. Bessarabov, A.A., E.S. Voronin and others; Under the editorship A.A. Sydorchuk - M.: Kolos, 2007. - 671 p.
28. Instructions on the prevention of infectious diseases of animals. Methods of prevention of animal salmonellosis / Kassich V.Yu., Kiprich V.V., Truskova T.I., Petrenkouk E.P., Horbenko O.V. et al. // SOU Adopted and put into effect by the Ministry of Agrarian Policy of Ukraine, 2006.
29. Cattle. Methods of laboratory diagnostics pseudomonosis / V. Kassich, O. Volosyanko, N. Chechetkina, S. Levchuk // SOU 85.20-37-302.2005. Adopted and put into effect by the Ministry of Agrarian Policy of Ukraine on December 8, 2005.
30. Methods of laboratory diagnosis of horse diseases / Kassich V.Yu., Volosyanko O.V. // SOU 85.20-37-302..2005.
31. Law of Ukraine "On Veterinary Medicine", Kyiv, 2008.
32. Regulations and instructions of the State Production and Consumer Service of Ukraine