

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SUMY NATIONAL AGRARIAN UNIVERSITY**

**Department of Epidemiology and Parasitology
Faculty of Veterinary Medicine**

MODULE SYLLABUS

Optional 4

(Animal health protection)

(compulsory/optional)

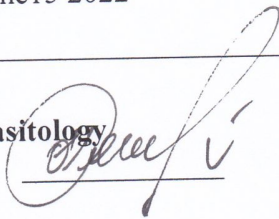
Implemented in the “Veterinary Medicine” Academic Program

Area of specialization 211 “Veterinary Medicine”

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


Sumy-2022

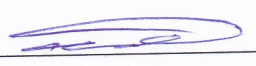
Author: Dr. Veterinary Science, Professor (O.I. Kasianenko)

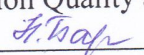
Module syllabus agreed at the Episootology and Parasitology Department meeting	Minutes No 15 dated June15 2022
	Head of Episootology and Parasitology Department  (<u>O.I. Kasianenko</u>)

Approved by:

Guarantor of the Academic program  (Shkromada O.I.)

Dean of the Faculty  (Nechyporenko O.L.)

Syllabus review (attached) is provided by :  Potrov R.V.

Representative of the Department of Education Quality assurance, licensing and accreditation  (V. Baranik)

Registered in electronic data base 19.06. 2022

Syllabus review data:

The academic year in which changes are made	The Academic program attachment number with changes description	Changes revised and approved		
		Minutes No and date of the department meeting	Head of Department	Guarantor of the Academic program

1. MODULE OVERVIEW

1.	Title	Animal health Protection		
2.	Faculty/Department	Veterinary Medicine / Epizootology and Parasitology Department		
3.	Type (compulsory or optional)	optional		
4.	Program(s) to which module is attached (to be filled in for compulsory types)	–		
5.	Module can be suggested for (to be filled in for optional types)	Veterinary hygiene, sanitation and examination		
6.	Level of the National Qualifications Framework	7 level		
7.	Semester and duration of module	2semester, 18weeks		
8.	ECTS credits number	5,0		
9.	Total workload and time allotment	Directed study		Self-directed study
		Lectures	Practicals	Labs
		14		30
				106
10.	Language of instruction	English		
11.	Module leader	Dr. Veterinary Science, Professor O.I. Kasianenko		
12.	Module leader contact information	160/3 Herasyrna Kondratieva Street, 81, Тел.: +8(096) 069 09 02; viber +8(095) 615 39 02 oksana_kasjanenko@ukr.net		
13.	Module description	The educational component is related to the general objectives of the OP and covers the aspects on which the veterinary framework of animal health is based. The study strengthens the main component of "Veterinary technologies for the prevention of infectious animal diseases" and provides additional in-depth knowledge of science-based planning, organization and implementation of measures to prevent the negative impact of factors on animal health.		
14.	Module aim	The purpose of the educational component is to form students' abilities dynamically combine knowledge, skills, communication skills, solve complex problems during professional activities and use methods of prevention, diagnosis, treatment of productive animals with infectious diseases and implement innovative technologies in professional activities.		
15.	Module Dependencies (prerequisites, co-requisites, incompatible modules)	The educational component is based on the study of EC: Epizootology and infectious diseases, Veterinary technologies for the prevention of infectious animal diseases, Veterinary technologies for the prevention of infectious animal diseases.		
16.	The policy of academic integrity	No manifestations of academic dishonesty are allowed during the study of EC. Plagiarism check algorithm systems are tools for		

		counteracting violations of academic integrity. 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 reexecution.
17	Link in Moodle	https://cdn.snau.edu.ua/moodle/course/view.php?id=4325

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

OK learning outcomes:	How assessed
<p>MLOs: On successful completion of the module the learner will be able to:</p>	
<p>MLOs 1. Identify and apply animal health tools and measures to ensure the quality and safety of agricultural products.</p>	<p>Rating control according to the 100-point scale of ECTS assessment. Polycriteria assessment of the current work of higher education students: survey of theoretical questions, written assignments during tests, assessment of knowledge, surveys during laboratory-practical classes; activity during the discussion of issues submitted for classes and role-playing epizootic games; express control during classroom classes; self-study of the topic as a whole or individual issues of independent work of higher education (writing essays, test results, individual written tests, preparation of presentations, presentation report of self-developed material). RDN is assessed during the current and final control (offset). During the current and final control in the process of assessment of the discipline are taken into account prepared by the applicant and published scientific publications in collections that are part of professional publications and / or conference proceedings.</p>
<p>MLOs 2. Identify risks, develop and implement measures to protect animals from diseases common to animals and humans.</p>	<p>Rating control according to the 100-point scale of ECTS assessment. Polycriteria assessment of the current work of higher education students: survey of theoretical questions, written assignments during tests, assessment of knowledge, surveys during laboratory-practical classes; activity during the discussion of issues submitted for classes and role-playing epizootic games; express control during classroom classes; self-study of the topic as a whole or individual issues of independent work of higher education (writing essays, test results, individual written tests, preparation of presentations, presentation report of self-developed material). RDN is assessed during the current and final control (offset). During the current</p>

	and final control in the process of assessment of the discipline are taken into account prepared by the applicant and published scientific publications in collections that are part of professional publications and / or conference proceedings.
MLOs 3. Identify and apply animal health tools and measures through the rational use of antibacterial and environmentally friendly drugs.	Rating control according to the 100-point scale of ECTS assessment. Polycriteria assessment of the current work of higher education students: survey of theoretical questions, written assignments during tests, assessment of knowledge, surveys during laboratory-practical classes; activity during the discussion of issues submitted for classes and role-playing epizootic games; express control during classroom classes; self-study of the topic as a whole or individual issues of independent work of higher education (writing essays, test results, individual written tests, preparation of presentations, presentation report of self-developed material). RDN is assessed during the current and final control (offset). During the current and final control in the process of assessment of the discipline are taken into account prepared by the applicant and published scientific publications in collections that are part of professional publications and / or conference proceedings.

3. MODULE INDICATIVE CONTENT

Autumn semester

Topics	Directed study			Learning resources ¹	
	Classroom work		Self-directed study		
	Lectures	Practicals			Labs
Topic 1. Veterinary aspects of animal health (means and measures of animal health through ensuring the quality and safety of agricultural products).	2		4	15	[1, 5, 7, 12, 13, 14, 17, 18, 19, 25, 26]
Topic 2. Infectious diseases are common to animals and humans (Structure of infectious diseases. Zoonoses)	2		6	15	[3, 5, 9, 11, 22, 24]
Topic 3. Invasive diseases that are transmitted from humans to animals.	2		4	16	[2, 3, 5, 7, 9, 11, 22, 24]
Topic 4. Antibiotic resistance of zoonotic bacteria	2		4	15	[2, 3, 5, 7, 9, 11, 13, 22, 23, 24]
Topic 5. Alternative to antibiotics (probiotics, prebiotics, symbiotics)	2		4	15	2, 3, 5, 7, 9, 11, 13, 22, 23, 24, 26]
Topic 6. Modern specific preventive measures. Factors that affect immunity (the effect of stress on the effectiveness	2		6	15	[1, 5, 7, 12, 14, 17, 18, 19, 25, 26]

¹ Specific source from the main or additional recommended literature

of vaccination; immunosuppressive effect of microorganisms; immunosuppressive effect of mycotoxins).					
Topic 7. New methods of prevention and treatment of bacterial diseases of animals (nanotechnology in veterinary medicine)	2		4	15	[1, 5, 7, 12, 13, 14, 17, 18, 19, 25]
Total	14		30	106	

4. TEACHING AND LEARNING METHODS

MLOs	Teaching methods(directed study)	Hours	Learning methods (self-directed study)	Hours
MLOs 1. Identify and apply animal health tools and measures to ensure the quality and safety of agricultural products.	<p>Narration of theoretical questions, explanations, conversation (heuristic and reproductive), lecture on the etiology, epizootology, pathogenesis, clinical signs, pathological changes, differential diagnosis of infectious diseases of companion animals.</p> <p>Laboratory-practical classes in (educational-scientific laboratory of PCR-diagnostics, inter-faculty educational-scientific laboratory of electron microscopy).</p> <p>Demonstration of methods and results of diagnostic tests, illustration, observation.</p> <p>Use of technical means of training and problem situations, excursions, on-the-job training, group research, use of training and control tests).</p> <p>Use of multimedia technologies, spreadsheets, application of the method of analysis of specific situations (case-study), dialogue training, part-time students (cooperation).</p>	15	<p>Pobota with a book, lecture notes, educational and methodical literature (reading, translation, writing, taking notes, making tables, graphs, reference notes).</p> <p>Acquaintance with the information of official sites on a subject of employment or a separate question (the instruction on prevention and elimination of an infectious disease).</p> <p>Memorization of theoretical material, observation.</p> <p>The student must apply teaching methods by the nature of the logic of cognition (analytical, synthesis methods, inductive method, deductive method, translational method).</p> <p>On the basis of the studied and processed material to independently generate an opinion during a theoretical survey, solving situational problems, debates, discussions, binary classes, business and role-playing games, group research).</p> <p>Use multimedia technologies, dialogue learning, student cooperation (cooperation).</p>	35
MLOs 2. Identify risks, develop and implement measures to protect animals from diseases common to animals and humans.	<p>Narration of theoretical questions, explanations, conversation (heuristic and reproductive), lecture on the etiology, epizootology, treatment, prevention of infectious diseases of companion animals.</p> <p>Laboratory-practical classes in (educational-scientific laboratory of PCR-</p>	15	<p>Pobota with a book, lecture notes, educational and methodical literature (reading, translation, writing, taking notes, making tables, graphs, reference notes).</p> <p>Acquaintance with the information of official sites on a subject of employment or a separate question (the</p>	35

	<p>diagnostics, inter-faculty educational-scientific laboratory of electron microscopy).</p> <p>Demonstration of methods and results of diagnostic tests, illustration, observation.</p> <p>Use of technical means of training and problem situations, excursions, on-the-job training, group research, use of training and control tests).</p> <p>Use of multimedia technologies, spreadsheets, application of the method of analysis of specific situations (case-study), dialogue training, part-time students (cooperation).</p>		<p>instruction on prevention and elimination of an infectious disease).</p> <p>Memorization of theoretical material, observation.</p> <p>The student must apply teaching methods by the nature of the logic of cognition (analytical, synthesis methods, inductive method, deductive method, translational method).</p> <p>On the basis of the studied and processed material to independently generate an opinion during a theoretical survey, solving situational problems, debates, discussions, binary classes, business and role-playing games, group research).</p> <p>Use multimedia technologies, dialogue learning, student cooperation (cooperation).</p>	
<p>MLOs 3. Identify and apply animal health tools and measures through the rational use of antibacterial and environmentally friendly drugs.</p>	<p>Narration of theoretical questions, explanations, conversation (heuristic and reproductive), lecture, instruction on biosecurity and biosafety.</p> <p>Demonstration of methods and results of diagnostic tests, illustration, observation.</p> <p>Use of technical means of training and problem situations, excursions, on-the-job training, group research, use of training and control tests).</p> <p>Use of multimedia technologies, spreadsheets, application of the method of analysis of specific situations (case-study), dialogue training, part-time students (cooperation).</p>	<p>14</p>	<p>Pobota with a book, lecture notes, educational and methodical literature (reading, translation, writing, taking notes, making tables, graphs, reference notes).</p> <p>Acquaintance with the information of official sites on a subject of employment or a separate question (the instruction on prevention and elimination of an infectious disease).</p> <p>Memorization of theoretical material, observation.</p> <p>The student must apply teaching methods by the nature of the logic of cognition (analytical, synthesis methods, inductive method, deductive method, translational method).</p> <p>On the basis of the studied and processed material to independently generate an opinion during a theoretical survey, solving situational problems, debates, discussions, binary classes, business and role-playing games, group research).</p> <p>Use multimedia technologies, dialogue learning, student cooperation (cooperation).</p>	<p>35</p>

5. ASSESSMENT

5.1. Diagnostic assessment

5.2. Summative assessment

5.2.1. Intended learning outcomes methods:

No	Summative assessment methods	Grades	Deadline
	Thematic survey	20 points / 20%	Weekly
	Execution of tasks in laboratory-practical classes	20 points / 20%	According to the schedule
	Testing	15 points / 15%	For 8-9 weeks
	Report with a presentation on the subject of independent study of the discipline	45 points / 45%	According to the schedule of delivery of modules

5.2.2. Evaluation criteria

Summative assessment method	Unsatisfactorily	Satisfactorily	Good	Excellent
Thematic survey	<12 points	12-15 points	15-18 points	19-20 points
	The student can play only individual fragments of the course.	Most requirements are met, but some components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue	All requirements of the task are fulfilled	All requirements of the task are fulfilled, creativity, thoughtfulness is shown, own solution of a problem is offered
Execution of tasks in laboratory-practical classes	<12 points	12-15 points	15-18 points	19-20 points
	Task requirements not met	Most of the tasks are done with using on the basis of basic theoretical principles, the student has difficulty explaining the rules for solving laboratory-practical problems. Execution 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 for the direction of their solutions. Understands the main provisions that are decisive in the course, can solve similar problems by those discussed with the teacher, but allows a small number of inaccuracies.	The applicant implements the theoretical material of the discipline in the performance of laboratory and practical work, is able to analyze and compare the results based on the knowledge, skills, practical skills acquired in this discipline

Multiple selection test	<i>≤5 points</i>	<i>6-9 points</i>	<i>10-13 points</i>	<i>14-15 points</i>
	The student gives the correct answer to several questions (≤ 33% of the correct answers).	The student has some knowledge provided in the program of the discipline, has the basic provisions being studied and gives the correct answer to several questions (34-59% of correct answers).	The student is generally well versed in the material, knows the basic provisions of the material, and gives the correct answer to several questions (60-89% of the correct answers).	The student demonstrates complete and solid knowledge of the study material in the amount that corresponds to the program of the discipline, correctly answers the test questions (90-100% of correct answers).
Design and presentation report of independently processed material	<i><9 points</i>	<i>10-19 points</i>	<i>20-39 points</i>	<i>40-45 points</i>
	The integrity of the student's understanding of the material on the discipline is lacking. The student did not perform independent study of the material.	Despite the fact that the student completed the program of the discipline, but some components are missing or insufficiently developed, the student worked passively.	Knows the basic provisions that are crucial in performing independent work / individual tasks. Errors in the answers are not significant.	All requirements, tasks are fulfilled, creativity, thoughtfulness is shown, own solution of a problem is offered.

5.3. Formative assessment

Formative exercises are designed to enable students to develop particular aspects of their learning, prior to summative assessments. Formative exercises are designed to help students use feedback and self-reflection to manage and develop their learning so that they can see how to improve their work.

No	Formative Assessment elements	Date
Autumn semester		
1.	Oral feedback after studying topics 1-3, 6-7	3 th week
2.	Written feedback after studying topics 4-5	8 th week
3.	Written feedback from the teacher while working on laboratory-practical tasks	During classes
4.	Oral feedback from the teacher after the report with a presentation on the topic of independent study of the discipline	During classes

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

6. LEARNING RESOURCES (LITERATURE)

The main sources

- Конституція України // Відомості Верховної Ради України, 1996, № 30, ст. 141. [Ізмінами і доповненнями, внесеними Законами України від 8.12.2004 року № 2222-IV, від 1.02.2011 року № 2952-VI, від 19.09.2013 року № 586-VII, від 21.02.2014 року № 742-VII.](#)
- Цивільний кодекс України. Доступно: <https://zakon.rada.gov.ua/laws/show/435-15/ru/ed20131011#Text>
- Закон України «Про ветеринарну медицину» (Відомості Верховної Ради Укра-

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4. Закон України «Про забезпечення санітарного та епідемічного благополуччя населення». Доступно: <https://zakon.rada.gov.ua/laws/show/4004-12#Text>

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6. Закон України «Про захист тварин від жорстокого поводження». Доступно: <https://zakon.rada.gov.ua/laws/show/3447-15#Text>

7. Кодекс України про адміністративні правопорушення. Доступно: <https://zakon.rada.gov.ua/laws/show/80731-10#Text>

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9. В.П.Литвин, А.Ф. Євтушенко та ін. Практикум із загальної епізоотології. К.: ВЦ НАУ, 2003 – 175 с.

The auxiliary sources

10. Обов'язковий мінімальний перелік досліджень сировини, продукції тваринного та рослинного походження, комбікормової сировини, комбікормів, вітамінних препаратів та ін., які слід проводити в державних лабораторіях ветеринарної медицини і за результатами яких видається ветеринарне свідоцтво (ф-2). Затверджений наказом Державного департаменту ветеринарної медицини України від 03.11.98 № 16 та зареєстрований в Міністерстві юстиції України 30.11.98 за № 761/3201.

11. Каришева А.Ф. Спеціальна епізоотологія. К.: "Вища освіта", 2002. - 701с.

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17. Зон Г. А. Патологоанатомічний розтин тварин / Г. А. Зон, М. В. Скрипка, Л. Б. Івановська. ; під ред. Г.А. Зона. – Донецьк : ПП Глазунов Р.О., 2009. – 189 с.

Methodical support

18. Касяненко О.І. Захист здоров'я тварин. Методичні вказівки щодо проведення лабораторно-практичних та самостійних занять для студентів ФВМ, спеціальність 211 «Ветеринарна медицина» освітнього ступеня «магістр», Суми, 2022 рік, 24 с.

19. Литвиненко В.М. Вакцинопрофілактика захворювань птахів. Навчальний посібник, 2016.

20. Кассіч В.Ю., Ребенко Г.І., Методичні рекомендації «Емерджентні та екзотичні інфекції.» - Суми, 2011 - 16 с.

21. Ребенко Г.І. Природно-осередкові інфекційні хвороби. Навчальний посібник. – Суми, 2012 – 52 с.

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23. Ребенко Г.І., Байдевятов Ю.А. Пробиотики та біотерапія. Методичні вказівки — Суми, 2014 рік. — 28 с.

Other sources

Website of the State Veterinary and Phytosanitary Service: <http://www.vet.gov.ua/>

MEB website: <http://www.oie.int/>

Website of the State Food and Consumer Services <http://www.consumer.gov.ua>