

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

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

MODULE SYLLABUS

Infectious diseases of productive animals

optional

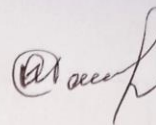
Implemented in the “Veterinary Medicine” Academic Program

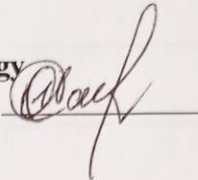
Area of specialization 211 “Veterinary Medicine”

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

Sumy-2021

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

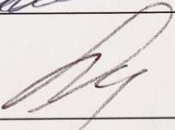


Module syllabus agreed at the Department meeting	Minutes No 22 dated June 18 2021
	Head of Episootology and Parasitology Department  (<u>O.I. Kasianenko</u>)

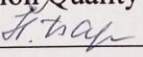
Approved by:

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

Dean of the Faculty  (Nechyporenko O.L.)

Syllabus review (attached) is provided by :  (Ulko L.G.)

 (Nahorna L.V.)

Representative of the Department of Education Quality assurance,
licensing and accreditation  (F. Bogachuk)

Registered in electronic data base 30.06. 2021

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	Infectious diseases of productive animals		
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	3 semester, 15 weeks		
8.	ECTS credits number	5,0		
9.	Total workload and time allotment	Directed study		Self-directed study
		Lectures	Practicals	Labs
		8		22
				120
10.	Language of instruction	English		
11.	Module leader	. Kasianenko		
12.	Module leader contact information	160/3 Herasyma Kondratieva Street, 81, Tel.: +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 aspects of infectious and epizootic processes that underlie the development of infectious diseases of productive animals and anti-epizootic measures. The study of the discipline strengthens the main component of "Veterinary technologies for the prevention of infectious diseases of animals" and provides additional in-depth knowledge of science-based planning, organization and conduct of preventive, curative and anti-epizootic measures for infectious diseases of productive animals.		
14.	Module aim	Training of highly qualified and professional veterinarians, able to dynamically combine knowledge, skills, communication skills, solve complex problems during professional activities and solve problems related to prevention, diagnosis, treatment of productive animals for 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 re-execution.
17	Link in Moodle	https://cdn.snau.edu.ua/moodle/course/view.php?id=1920

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:	How assessed
MLOs 1. Carry out epizootological, clinical and pathological and differential diagnosis of infectious diseases of productive animals. conduct.	Rating control according to the 100-point scale of ECTS assessment. Polycriteria assessment of the current work of applicants for higher education: surveys of theoretical questions, written assignments during tests, assessment of the level of knowledge demonstrated in laboratory and practical classes; activity during the discussion of issues raised in class; 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, preparation of presentations, presentation report of self-developed material). MLOs 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.
MLOs 2. Develop and implement methods of treatment and prevention on the farm using therapeutic and prophylactic agents and evaluate their effectiveness.	Rating control according to the 100-point scale of ECTS assessment. Polycriteria assessment of the current work of applicants for higher education: surveys of theoretical questions, written assignments during tests, assessment of the level of knowledge demonstrated in laboratory and practical classes; activity during the discussion of issues raised in class; 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, preparation of presentations, presentation report of self-developed material).

	MLOs 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.
MLOs 3. Develop and implement measures to protect the population from diseases common to animals and humans.	Rating control according to the 100-point scale of ECTS assessment. Polycriteria assessment of the current work of applicants for higher education: surveys of theoretical questions, written assignments during tests, assessment of the level of knowledge demonstrated in laboratory and practical classes; activity during the discussion of issues raised in class; 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, preparation of presentations, presentation report of self-developed material). MLOs 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	Distribution of hours			Learning resources	
	Directed study		Self-directed study		
	Lectures	Practicals	Labs		
Topic 1. Infectious diseases with septic course. (Anthrax Pasteurellosis, Tetanus, Malignant edema (gas edema). Necrobacteriosis. Botulism).	2		2	16	[1, 3, 4, 10, 17, 18]
Topic 2. Infectious diseases with a chronic course (Tuberculosis, Brucellosis).	2		2	16	[1, 2, 4, 5, 8, 14]
Topic 3. Bacterial focal infections (Leptospirosis, tularemia, Pseudotuberculosis, Rabies, Aujeszky's disease, Rickettsiosis. Mycoplasmosis)	2		2	16	[4, 6, 9, 15, 17]
Topic 4. Infectious diseases accompanied by impaired	2		2	16	[4, 6, 9, 15, 17]

reproductive function, skin and mucous membranes. Mycoses and mycotoxicosis Campylobacteriosis (vibriosis), Listeriosis Chlamydia, foot and mouth disease, vesicular stomatitis, smallpox, systemic mycoses. Dermatormycoses. Mycotoxicosis)					
Topic 5. Infectious diseases of cattle (bovine leukemia, spongiform encephalopathy of cattle, emphysematous carbuncle (emcar), paratuberculosis, contagious pleuropneumonia, bovine infectious plague, rhinitis, malignant catarrh, malignant catarrh), viral diarrhea).	–		4	18	[3, 4, 10, 16]
Topic 6. Infectious diseases of cattle (bradzet, infectious enterotoxemia of sheep, enzootic (chlamydial) abortion of sheep, infectious agalactia of sheep and goats, infectious, catarrhal fever of sheep, infectious pleuropneumonia of goats, hoof rot, secretions, eczema, spring-maedi).	–		4	18	[4, 7, 13, 17, 18]
Topic 7. Infectious diseases of horses (mit, sap, epizootic lymphangitis, Infectious anemia, Infectious equine encephalomyelitis, equine viral arteritis, rhinopneumonia African plague, contagious metritis, Horsepower measles virus infection.	–		4	18	[4, 5, 7, 12, 14]
	8		22	120	

4. TEACHING AND LEARNING METHODS

MLOs	Teaching methods (directed study)	Hours	Learning methods (self-directed study)	Hours
MLOs 1. Carry out epizootological, clinical and pathological and differential diagnosis of infectious diseases of productive animals.	Narration of theoretical questions, explanations, conversation (heuristic and reproductive), lecture, instruction. Laboratory-practical classes in (educational-scientific laboratory of PCR-diagnostics, inter-faculty educational-scientific laboratory of electron microscopy). Demonstration of	10	Work with the book, lecture notes, educational and methodical literature (reading, translation, writing, taking notes, making tables, graphs, reference notes). Acquaintance with the information of official sites on a subject of employment or a separate question (the	40

conduct.	<p>methods and results of diagnostic tests, illustration, observation.</p> <p>Use of technical means of training and problem situations, excursions, classes on production, group researches, use of educational and control tests). 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, methods of synthesis, 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 2. Develop and implement methods of treatment and prevention on the farm using therapeutic and prophylactic agents and evaluate their effectiveness.</p>	<p>Narration of theoretical questions, explanations, conversation (heuristic and reproductive), lecture, instruction.</p> <p>Demonstration of means of prevention and treatment.</p> <p>Use of technical means of training and problem situations, excursions, classes on production, group researches, use of educational 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>	10	<p>Work with the 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, methods of synthesis, inductive method, deductive method, translational method).</p> <p>Independently generate an opinion during a theoretical survey, solving situational problems, debates,</p>	40

			discussions, binary classes, business and role-playing games, group research). Use multimedia technologies, dialogue learning, student cooperation (cooperation).	
MLOs 3. Develop and implement measures to protect the population from diseases common to animals and humans.	<p>Narration of theoretical questions, explanations, conversation (heuristic and reproductive), lecture, instruction.</p> <p>Demonstration of measures to protect the population from diseases common to animals and humans.</p> <p>Use of technical means of training and problem situations, excursions, group researches, use of educational 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.</p>	10	<p>Work with the 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, methods of synthesis, inductive method, deductive method, translational method).</p> <p>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.</p>	40
		30		120

5. ASSESSMENT

5.1. Diagnostic assessment

5.2. Summative assessment

5.2.1. Intended learning outcomes methods:

No	Summative assessment methods	Grades	Deadline
Autumn semester			
1.	Thematic survey	20 points/ 20 %	Weekly
2.	Execution of tasks in laboratory-practical classes	20 points/ 20 %	According to the schedule

3.	Multiple choice test	15 points/ 15 %	for 7-8 weeks
4.	Report with a presentation on the subject of independent study of the discipline	45 points/ 45 %	According to the schedule

5.2.2. Grading criteria

Summative assessment method	Unsatisfactory	Satisfactory	Good	Excellent
Thematic survey	<i><12 points</i>	<i>12-15 points</i>	<i>15-18 points</i>	<i>19-20 points</i>
	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	<i><12 points</i>	<i>12-15 points</i>	<i>15-18 points</i>	<i>19-20 points</i>
	Task requirements not met	Most of the tasks are done without 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 choice 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	The student is generally well versed in the material, knows the basic provisions of the	The student demonstrates complete and solid knowledge of the study material in the

		being studied and gives the correct answer to several questions (34-59% of correct answers).	material, and gives the correct answer to several questions (60-89% of the correct answers).	amount that corresponds to the program of the discipline, correctly answers the test questions (90-100% of correct answers).
Report with a presentation on the subject of independent study of the discipline	<9 points	10-19 points	20-39 points	40-45 points
	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

1. Yarchuk BM, Verbytsky PI, Lytvyn VP, and others. General epizootology. Bila Tserkva, 2002 - 656 p.
2. VP Litvin, AF Yevtushenko, etc. Workshop on general epizootology. K. : VTs NAU, 2003 - 175 p.
3. Bakulov IA, etc. Guide to general epizootology. -M., "Colossus", 1979.-186p.
4. Karisheva AF Special epizootology. K. : "Higher education", 2002. - 701p.
5. VP Litvin, L.V. Oliynyk, LE Kornienko, BM Yarchuk. Factor diseases of agricultural animals. White Church. 2002.- 368 p.
6. Bozhko GK Organization of anti-epizootic measures. - Kyiv. "Harvest" 1974.-229 p.
7. R. Kravtsiv, J. Zlonkevych, B. Korzh, I. Oleksyuk Infectious diseases of cattle. Lviv, - 2001. - 394p.
8. Konopatkin AA, Bakulov IA, Nuikin Ya.V. Epizootology and infectious diseases of farm animals. M., "Kolos", 1984.-543 p.
9. Куриленко А.Л. Krupalnik VL Treatment of farm animals with infectious diseases. M. "Agropromizdat", 1986.-191p.

Methodical support

10. Milanko GO, Avramenko NO, Rebenko GI, Milanko OY, Avramenko OA "Disinfection" Guidelines for practical work for students of the Faculty of Veterinary Medicine, Sumy 2006 - 60 p.
11. Rebenko GI, Fotin AI Organization and carrying out of anti-epizootic measures, registration of documentation on them. Methodical recommendations for students of the Faculty of Veterinary Medicine, Sumy, 2008 - 28 p.
12. Kassich VY, Rebenko GI Methodical recommendations "Prevention of factor diseases of animals" - Sumy, 2010 - 23 p.
13. Rebenko GI, Gurova TV, Vershnyak TV Methodical recommendations "Biological wastes and methods of their disinfection." - Sumy, 2011 - 34 p.
14. Kassich VY, Rebenko GI, Methodical recommendations "Emerging and exotic infections." - Sumy, 2011 - 16 p.
15. Rebenko GI Natural focal infectious diseases. Tutorial. - Sumy, 2012 - 52 p.
16. Kassich VY, Rebenko GI Antimicrobial therapy for infectious diseases of animals. Tutorial. - Sumy, 2013 - 50 p.
17. Rebenko GI, Baidevlyatov Yu.A. Probiotics and biotherapy. Methodical instructions - Sumy, 2014. - 28 p.
18. Kassich VY, Rebenko GI, Baidevlyatov YA Methodical instructions Execution of course works on epizootology. - Sumy, 2014 - 32 p.

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>