Ministry of Education and Science of Ukraine
Sumy National Agrarian University
Faculty of Veterinary Medicine
Department of Veterinary and Sanitary Inspection, Microbiology,
Hygiene and Pathological Anatomy

Working program (syllabus) of the educational component

Veterinary Hygiene and Sanitation of Animal Husbandry
Compulsory

Specialty	211 "Veterinary Medicine"
Educational program	"Veterinary Medicine"
Level of higher education	second (master's)

Sumy — 2025

Developer: _____ Liudmyla NAHORNA, doctor of veterinary science, professor departments of veterinary and sanitary inspection, microbiology, hygiene and pathological anatomy

Considered, approved and approved at the meeting of the department of veterinary and sanitary inspection, microbiology, hygiene and pathological anatomy	protocol dated June 9, 2025 No. 16	
	Head department	_____ (signature) Roman PETROV (surname, initials)

Agreed:

Guarantor of the educational program _____ Oleksandr CHEKAN

Dean of the faculty where the educational program is implemented

_____ Liudmyla NAHORNA

Review of the work program (attached) provided by:

Oksana SHKROMADA _____

Svitlana NAZARENKO _____

Methodist of the Education Quality Department,
licensing and accreditation _____ (_____

Registered in the electronic database: date: 26.06. 2025

Information on revision of 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	Veterinary hygiene and sanitation animal husbandry				
2.	Faculty/department	Faculty of Veterinary Medicine / Department of veterinary and sanitary inspection, microbiology, hygiene and pathological anatomy				
3.	The status is OK	Mandatory component				
4.	Program/Specialty (programs), the component of which is OK for (*to be filled in for mandatory OK)*	EPP "Veterinary Medicine" 211 Veterinary medicine				
5.	OK can be offered for (to be *filled in for selective OK)*					
6.	NRK level	7-th level				
7.	Semester and duration of study	4-th semester, 15 weeks				
8.	Number of ECTS credits	5.0				
9.	The total number of hours and their distribution	Contact work (class)				Individual work
		Lectures	Pr/sem	Laboratory	Educational practice	
		4	-	4	30	112
10.	Language of education	English				
11.	Teacher/Coordinator of the educational component	d.vet.s., professor Nahorna L.V.				
11.	Contact Information	Phone: +8(050) 628 66 85; lvn_10@ukr.net				
12.	General description of the educational component	The educational component is related to the general objectives of the OP and provides the study of the parameters of the environment and the microclimate of livestock premises, the analysis and implementation of preventive measures to combat animal diseases, in particular those caused by non-compliance with sanitary and hygienic standards of keeping, care and feeding, hygienic standards and rules of keeping, feeding , feeding, care and breeding of various types of productive agricultural animals, methods of researching environmental objects.				
13.	The purpose of the educational component	To form among the applicants an understanding of the theoretical and practical basis of the influence of normal and abnormal environmental factors on the animal body, zoohygiene standards and rules for keeping, feeding, watering, care and cultivation of different age groups of productive agricultural animals, methods of researching environmental objects, ways their improvement, preservation of health and increase in productivity to obtain high-quality and safe animal husbandry products				
14.	Prerequisites for studying OK, connection with other educational	The educational component is based on the study of EC: Animal physiology, Genetics and animal breeding The educational component is the basis for studying the following OKs:				

	components of OP	Internal Animal Diseases, Parasitology and Invasive Animal Diseases, Epizootology and Infectious Diseases, Veterinary Toxicology
15.	Policy of academic integrity	Any manifestations of academic dishonesty are not allowed during the study of OK. If a violation of academic integrity is detected (writing off, academic plagiarism, use of gadgets while completing final tasks), completed tasks are canceled and not counted, the winner is directed to repeat the set of tasks. In case 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 National University (https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/).
16.	Link to the course in the Moodle system	https://cdn.snau.edu.ua/moodle/course/view.php?id=4050

2. RESULTS TEACHING BY EDUCATIONAL COMPONENT AND THEIR COMMUNICATION WITHSOFTWARE LEARNING RESULTS

The results teaching by OK: After study educational componentstudent is expected will be able to…"	Program learning outcomes, which is aimed at achieving EC (specify the number according to numbering, given in profiles EP) 3					How the LOD is evaluated
	PLO 3	P PLO 7	PLO 10	PLO 12	PLO 17	
LOD 1. Determine indicators of microclimate parameters in production premises for keeping productive animals: (temperature, gas composition of air, humidity, bacterial air pollution, speed of its movement, lighting of premises, etc.). Interpret the received data, propose a set of measures to maintain the parameters of the microclimate of industrial premises.	h		h	h		Rating control according to the 100-point rating scale of the ECTS. Examination of theoretical questions, assessment of the level of knowledge demonstrated in laboratory-practical classes; independent processing of individual issues of independent work by applicants of higher education, with the presentation of the processed material in the form of a presentation report. The activity of applicants is taken into account during the discussion of the issues brought to class; express control (oral survey) during classroom classes. Analysis of practical skills in using devices for determining microclimate parameters.
LOD 2. To determine with the help of devices and special laboratory studies the physical, chemical, and biological properties of soil, water, and fodder. Interpret the obtained results, compare them with sanitary and hygienic standards and develop measures (action	x	x	x	x		Rating control according to the 100-point rating scale of the ECTS. Examination of theoretical questions, assessment of the level of knowledge demonstrated in laboratory-practical classes; independent processing of individual issues of independent work of higher education

algorithm) to eliminate and prevent the identified deficiencies in the future .						applicants, with presentation of the processed material in the form of a presentation report. The activity of the students is taken into account during the discussion of the issues brought to the class; express control (oral survey) during classroom classes. Analysis of practical skills in the use of devices and laboratory methods. Solving situational tasks.
LOD 3. Develop measures aimed at improving the sanitary and hygienic conditions of keeping productive animals and poultry.		x		x	x	Rating control according to the 100-point rating scale of the ECTS. Examination of theoretical questions, assessment of the level of knowledge demonstrated in laboratory-practical classes; independent processing of individual issues of independent work by applicants of higher education, with the presentation of the processed material in the form of a presentation report. The activity of applicants is taken into account during the discussion of the issues brought to class; express control (oral survey) during classroom classes. Solving situational tasks.
LOD 4. Conduct analysis and evaluation of farm projects, equipment; control: the quality of construction, care of animals, compliance with hygienic requirements for keeping animals, operation of equipment; develop the necessary measures to eliminate hygienic violations.	x		x	x		Rating control according to the 100-point rating scale of the ECTS. Examination of theoretical questions, assessment of the level of knowledge demonstrated in laboratory-practical classes; independent processing of individual issues of independent work of higher education applicants, with presentation of the processed material in the form of a presentation report. The activity of the students is taken into account during the discussion of the issues brought to the class; express control (oral survey) during classroom classes. Analysis of practical skills in the use of devices and laboratory methods. Solving situational tasks.
LOD 5. Conduct a sanitary and hygienic evaluation of the technology of keeping various types of productive animals; develop schemes for eliminating technological and hygienic				x	x	Rating control according to the 100-point rating scale of the ECTS. Examination of theoretical questions, assessment of the level of knowledge demonstrated in laboratory-practical classes;

deficiencies.						independent processing of individual issues of independent work by applicants of higher education, with the presentation of the processed material in the form of a presentation report. The activity of the students is taken into account during the discussion of the issues brought to the class; express control (oral survey) during classroom classes. Solving situational tasks.
LOD 6. To evaluate the well-being and well-being of productive animals under different technologies of their cultivation.	x				x	Rating control according to the 100-point rating scale of the ECTS. Examination of theoretical questions, assessment of the level of knowledge demonstrated in laboratory-practical classes; independent processing of individual issues of independent work of higher education applicants, with presentation of the processed material in the form of a presentation report. The activity of the students is taken into account during the discussion of the issues brought to the class; express control (oral survey) during classroom classes. Solving situational tasks.

3. CONTENT OF THE EDUCATIONAL COMPONENT (CURRICULUM PROGRAM)

Topic. List of issues to be considered within the topic	Distribution within the general time budget				Recommended Books[1]
	Auditory work			Independent work	
	Lk	P.z / semin. with	Lab. with.		
Topic 1. Hygienic value of physical properties of air (Hygienic value of temperature, heat exchange of animal bodies, hypothermia. Air humidity, its hygienic value, hygrometric indicators. Air movement, its hygienic value, atmospheric pressure, solar radiation and its components. Ultraviolet and infrared rays and their hygienic value. Devices for measuring air temperature, enclosing structures. Methods for measuring air temperature, enclosing structures. Measurement of indoor air temperature. Measuring the temperature of the enclosing structures of the premises. Devices for determining air humidity, their structure, rules of operation. Measurement of air humidity	-		2	10	[1, 4, 5, 6, 7, 8, 11, 18]

[1] A specific source from the main or additional recommended literature

in the indoor and outdoor environment. Calculations of air humidity indicators. Hygrometric indicators, their definitions and calculations. Methods of determining the wind rose. Wind rose calculations. Determination of illumination, devices, measurement of natural and artificial illumination. Methods of determination of dust and bacterial air pollution. The concept of "dead zone", aerorumbogram, their practical application under intensive technologies of animal husbandry.					
Topic 2. Hygienic value of gas composition of air. Gas composition of atmospheric air and air of livestock premises. The main toxic gases: carbon dioxide, hydrogen sulfide, ammonia, methane. Their GDC. Weather, climate, microclimate. Acclimatization and adaptation of animals. Protection of the external environment. Methods of determination of CO_2, NH_3, H_2S in air. Familiarization with titrometric methods of determination of harmful gases. Determination of CO_2, NH_3, H_2S, familiarization with other methods.	-		-	10	[1, 2, 4, 5, 6, 7, 8, 11, 18, 28, 38]
Topic 3. Sanitary and hygienic significance of soils, their improvement, self-cleaning, disinfection. Hygienic significance of mechanical composition and physical properties of soils. Biological properties of soils. Biogeochemical enzootics and their prevention. Soil improvement (self-cleaning, disinfection). A system of measures to protect soils from contamination by livestock waste. Determination of the mechanical composition of soils. Determination of physical properties of soils. Determination of the presence of organic substances in soils. Determination of nitrates in soils. Determination of chlorides in soils. Determination of soil homogeneity. Determination of bacterial and helminthological contamination of soils.	2		-	10	[1, 2, 4, 5, 6, 7, 8, 9, 18, 26, 28, 38]
Topic 4. Hygienic requirements for water, water supply, animal watering, its sanitary assessment. Hygienic requirements for fodder and animal feeding, prevention of fodder poisoning. Water properties, pollution protection, and quality control. Water	2		-	10	[1, 2, 4, 5, 6, 7, 8, 12, 13, 14, 18, 21-26, 28, 29, 38]

supply and watering of animals. Methods of drinking water and wastewater treatment. Rules of sanitary and topographic survey of water sources. Devices and rules for sampling water from different water sources. Acquaintance with devices, methods of water research. Determination of physical properties of water: smell, transparency, turbidity, color, etc. Familiarization with the method of determining the chemical properties of water. DST of water quality. Determination of carbonate, permanent and removable hardness of water. Acquaintance with water disinfection methods. Hygienic requirements for feeding animals. Prevention of fodder poisoning of animals. Sanitary and hygienic assessment of roughage. Sanitary and hygienic assessment of succulent fodder. Sanitary and hygienic evaluation of concentrated feeds.					
Topic 5. Animal hygiene requirements for the design of livestock premises, building materials. Zoohygienic requirements for ventilation, heating, sewage. Animal objects and their meaning. Sanitary and hygienic requirements for the planning and construction of livestock premises. Sanitary and hygienic control over the design and construction of livestock premises. Sanitary - hygienic requirements for equipment and microclimate. Sanitary and hygienic requirements for ventilation. Sanitary and hygienic requirements for heating. Sanitary and hygienic requirements for sewage. Layout plan of farms and premises for cattle. Layout plan of farms and premises for pigs. The layout of farms and premises for sheep and poultry farms. Sanitary and hygienic requirements for building materials. Sanitary and hygienic requirements for individual structures of premises: foundation, walls, ceilings, floors, etc. Natural and artificial ventilation, calculation. Space heating (heat balance) calculation. Types of sewers.	-		-	10	[1, 2, 4, 5, 6, 7, 8, 10, 18, 26, 28, 30-38]
Topic 6. Sanitary and hygienic requirements for the territory of	-		-	10	[1, 2, 4, 5, 6, 7, 8, 10, 18, 26, 28, 30-

livestock farms, equipment, premises. Animal care hygiene in the cold and warm period of the year. Sanitary and hygienic requirements for the territory of livestock farms. Arrangement of sanitary facilities of livestock farms. Systems of summer maintenance of various types of animals, hygienic requirements. Systems of keeping different types of animals in the cold period of the year, hygienic requirements.					38]
Topic 7. Hygiene of keeping cattle and pigs. Systems and hygiene of cattle keeping. Hygiene of growing young cattle **.** Pig housing systems. Hygienic requirements for keeping different age and technological groups of pigs. Types of buildings, equipment. Hygiene of maintenance and care of cattle in the stable and warm period of the year. Hygiene of growing young animals. Types of buildings, equipment in pig farming. Conditions for keeping and caring for different age groups of pigs.	-		-	10	[1, 2, 4, 5, 6, 7, 8, 11, 14, 17, 18, 28, 38, 39]
Topic 8. Hygiene of keeping sheep, horses, poultry and fur animals. Hygiene of keeping sheep. Hygiene of keeping horses. Poultry keeping hygiene. Hygiene of keeping fur animals. Sanitary and hygienic requirements for premises. Sanitary and hygienic requirements for the equipment of stables, poultry houses and farms for breeding fur animals. Hygiene of care for sheep, horses, poultry and fur animals. Sanitary and hygienic requirements for premises. Hygiene of care for sheep, horses, poultry and fur animals.	-		2	20	[1, 2, 4, 5, 6, 7, 8, 11, 14, 17, 18, 28, 38, 39]
Topic 9. Hygiene of pond fish farming. Systems and directions of fish farms. Peculiarities of conditions of keeping, feeding and veterinary and sanitary measures during fish farming. Water supply systems for fish ponds. Influence of physical and chemical factors on fish.	-		-	10	[1, 2, 4, 5, 6, 7, 8, 11, 14, 17, 18, 28, 38]

Salt mode of water. Features of maintenance in the winter period.					
Topic 10. Hygiene in beekeeping. Hygienic requirements for the location of the apiary. Production and auxiliary premises of the apiary. Types of beehives. Requirements for their structure. Optimum conditions for keeping bees. Microclimate of hives. Peculiarities of wintering bees. Wintering in special premises and in the yard. Storage conditions for fodder and honeycombs. Peculiarities of bee transportation. Veterinary and sanitary measures at the apiary	-		-	12	[1, 2, 4, 5, 6, 7, 8, 11, 14, 17, 18, 28, 38, 39]
Educational practice					
Study of the sanitary and hygienic condition of the soil, water, and air of livestock premises. Sanitary assessment. Research on the quality of fodder of plant origin: coarse, juicy, concentrated. Carrying out their sanitary assessment. Research of methods and methods of disinfection, disposal of manure and biological waste				**30**	
In total	**4**		**4**	**142**	

4. TEACHING AND LEARNING METHODS

DRN	Teaching methods (work to be carried out by the teacher during classroom classes , consultations)	Learning methods (what types of learning activities should be performed by the student independently)
DRN 1. Determine indicators of microclimate parameters in production premises for keeping productive animals: (temperature, gas composition of air, humidity, bacterial air pollution, speed of its movement, lighting of premises, etc.). Interpret the received data, propose a set of measures to maintain the parameters of the microclimate of	Narration of theoretical questions, explanations, conversation (heuristic and reproductive), multimedia lecture, instruction. Laboratory and practical classes in the educational and production laboratory "Vivariy SNAU". Demonstration of methods for determining microclimate parameters and interpretation of the obtained data, illustration, observation. Use of technical teaching aids, broadcast of video files related to the topic of the lesson, analysis of problem situations, lessons at the factory, group studies, use of educational and control tests).	Working with books, lecture notes, educational and methodical literature (reading, retelling, writing, note-taking). Acquaintance with information from official sites on the topic of the lesson or a separate issue (modern methods of controlling microclimate parameters in the conditions of industrial farms for breeding productive animals). Memorization of theoretical material, observation. The student must apply learning methods based on the nature of the logic of knowledge (analytical, synthesis methods, inductive method, deductive method). On the basis of the studied and processed material, independently generate an opinion during a theoretical survey, solving situational tasks, disputes, discussions **).** Use multimedia technologies to work on topics assigned for independent study, dialogic learning, student cooperation (cooperation).

industrial premises.	Use of multimedia technologies, application of the method of analysis of specific situations (case- study), dialogic learning, cooperation of students (cooperation).	
DRN 2. To determine with the help of devices and special laboratory studies the physical, chemical, and biological properties of soil, water, and fodder. Interpret the obtained results, compare them with sanitary and hygienic standards and develop measures (action algorithm) to eliminate and prevent the identified deficiencies in the future.	Narration of theoretical questions, explanations, conversation (heuristic and reproductive), multimedia lecture, instruction. Laboratory-practical classes in the (educational-production laboratory "Vivariy SNAU"). Demonstration of methods of determination of physico-chemical and biological properties of soil, water, feed and interpretation of the obtained data, illustration, observation. Use of technical teaching aids, broadcast of video files related to the subject of the lesson, analysis of problem situations, training at the workplace (Sumy Regional State Laboratory of the State Service of Ukraine on Food Safety and Consumer Protection) , group research, use of educational and control tests, solving situational problems tasks). Use of multimedia technologies, application of the method of analysis of specific situations (case-study), dialogic learning, cooperation of students (cooperation).	Working with books, lecture notes, educational and methodical literature (reading, retelling, writing, note-taking). Acquaintance with the information of official sites on the topic of the lesson or a separate issue (control of the quality of drinking water, feed in the conditions of industrial farms for raising productive animals). Memorization of theoretical material, observation. The student must apply learning methods based on the nature of the logic of knowledge (analytical, synthesis methods, inductive method, deductive method). On the basis of the studied and processed material, independently generate an opinion during a theoretical survey, solving situational tasks, disputes, discussions **).** Use multimedia technologies to work on topics assigned for independent study, dialogic learning, student cooperation (cooperation).
DRN 3. Develop measures aimed at improving the sanitary and hygienic conditions of keeping productive animals and poultry.	Narration of theoretical questions, explanations, conversation (heuristic and reproductive), multimedia lecture, instruction. Laboratory-practical classes in the (educational-production laboratory "Vivariy SNAU"). Use of technical teaching aids and problem situations, excursions to production (within dual education), group studies, use of educational and control tests , consideration of situational tasks). Use of multimedia technologies, application of the method of analysis of specific situations (case-study),	Working with books, lecture notes, educational and methodical literature (reading, retelling, writing, note-taking). Acquaintance with information from official websites on the topic of the lesson or a separate issue (characteristics of sanitary and hygienic conditions for keeping productive animals). Memorization of theoretical material, observation. The student must apply learning methods based on the nature of the logic of knowledge (analytical, synthesis methods, inductive method, deductive method). On the basis of the studied and processed material, independently generate an opinion during a theoretical survey, solving situational tasks, disputes, discussions **).** Use multimedia technologies to work on topics assigned for independent study, dialogic learning, student cooperation (cooperation).

	dialogic learning, cooperation of students (cooperation).	
DRN 4. Conduct analysis and evaluation of farm projects, equipment; control: the quality of construction, care of animals, compliance with hygienic requirements for keeping animals, operation of equipment; develop the necessary measures to eliminate hygienic violations.	Narration of theoretical questions, explanations, conversation (heuristic and reproductive), multimedia lecture, instruction. Laboratory-practical classes in (educational-production laboratory "Vivariy SNAU",). Use of technical teaching aids and problem situations, excursions to production (within dual education), group studies, use of educational and control tests, consideration of situational tasks). Use of multimedia technologies, application of the method of analysis of specific situations (case-study), dialogic learning, cooperation of students (cooperation).	Working with books, lecture notes, educational and methodical literature (reading, retelling, writing, note-taking). Acquaintance with the information of official sites on the subject of the lesson or a separate issue (constructive features of livestock premises and modern equipment for various types of productive animals). Memorization of theoretical material, observation. The student must apply learning methods based on the nature of the logic of knowledge (analytical, synthesis methods, inductive method, deductive method). On the basis of the studied and processed material, independently generate an opinion during a theoretical survey, solving situational tasks, disputes, discussions **).** Use multimedia technologies to work on topics assigned for independent study, dialogic learning, student cooperation (cooperation).
DRN 5. Conduct a sanitary and hygienic assessment of the technology of keeping various types of productive animals; develop schemes for eliminating technological and hygienic deficiencies.	Narration of theoretical questions, explanations, conversation (heuristic and reproductive), multimedia lecture, instruction. Laboratory-practical classes in the educational and production laboratory "Vivariy of SNAU", simulation classes on pig breeding and milk production of SNAU. Use of technical teaching aids and problem situations, field trips to production (as part of dual education), group studies, use of educational and control tests , consideration of situational tasks). Use of multimedia technologies, application of the method of analysis of specific situations (case-study), dialogic learning, cooperation of students (cooperation).	Working with books, lecture notes, educational and methodical literature (reading, retelling, writing, note-taking). Acquaintance with the information of official sites on the topic of the lesson or a separate issue (hygiene of keeping various types of productive animals). Memorization of theoretical material, observation. The student must apply learning methods based on the nature of the logic of knowledge (analytical, synthesis methods, inductive method, deductive method). On the basis of the studied and processed material, independently generate an opinion during a theoretical survey, solving situational tasks, disputes, discussions **).** Use multimedia technologies to work on topics assigned for independent study, dialogic learning, student cooperation (cooperation).
DRN 6. To evaluate the well-being and well-being of productive animals under different technologies of their cultivation.	Narration of theoretical questions, explanations, conversation (heuristic and reproductive), multimedia lecture, instruction. Laboratory-practical classes in the (educational-production laboratory "Vivariy SNAU"). Use of technical teaching aids and problem situations,	Working with books, lecture notes, educational and methodical literature (reading, retelling, writing, note-taking). Acquaintance with the information of official sites on the topic of the lesson or a separate issue (hygiene of keeping various types of productive animals). Memorization of theoretical material, observation. The student must apply learning methods based on the nature of the logic of knowledge (analytical,

	excursions to production (within dual education), group studies, use of educational and control tests, consideration of situational tasks). Use of multimedia technologies, application of the method of analysis of specific situations (case-study), dialogic learning, cooperation of students (cooperation).	synthesis methods, inductive method, deductive method). On the basis of the studied and processed material, independently generate an opinion during a theoretical survey, solving situational tasks, disputes, discussions **).** Use multimedia technologies to work on topics assigned for independent study, dialogic learning, student cooperation (cooperation).

5. EVALUATION BY THE EDUCATIONAL COMPONENT

5.1. Diagnostic assessment

Testing for mastery of the terminology used in the study of OK. No assessment is given.

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 oral survey	*15points / 15%*	During the study of OK
2	Performance of tasks in laboratory-practical classes	*15points / 15%*	According to the schedule
3	Multiple choice test in the Moodle system	*15 points / 15%*	During 7-8 weeks
4	A report with a presentation on the topic of independent study of the discipline	*15 points / 15%*	According to the schedule
5	Report and presentation report based on the results of educational practice	*10 points / 10%*	According to the schedule
6	Examination	*30 points/30%*	According to the schedule
	Together for the 4th semester	*100 points/100%*	

5.2.2. Evaluation criteria

Component[2]	**Unsatisfactorily**	**Satisfactorily**	**Fine**	**Perfectly**[3]
Thematic oral survey	*<5 points*	*5 points*	*10 points*	*15 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	the requirements of the task were fulfilled , creativity, thoughtfulness was demonstrated, and an own solution to the problem was proposed
Performance of	*<5 points*	*5 points*	*10 points*	*15 points*

[2] Specify the summative assessment component

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

tasks in laboratory-practical classes	Task requirements not met	Most of the tasks are performed using basic theoretical principles, the student has difficulty explaining 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 with the teacher, but allows a small number of inaccuracies.	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
Multiple choice test in the Moodle system	*≤ 5 points*	*5 points*	*10 points*	*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 complete and solid knowledge of the educational material in the amount corresponding to the discipline program, correctly answers the test questions (90–100% of correct answers).
A report with a presentation on the topic of independent study of the discipline	*<5 points*	*5 points*	*10 points*	*15 points*
	The student lacks complete understanding of the subject material. The student did not complete the independent processing of the material.	Despite the fact that the student completed the program of the academic discipline, but individual components were missing or insufficiently studied, 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.
Report and	*<2 points*	*3 points*	*5 points*	*10 points*

presentation report based on the results of educational practice	The student lacks complete understanding of the subject material. The student did not complete the practice program.	Despite the fact that the student completed the educational practice program, but individual components were missing or insufficiently worked out, the student worked passively.	Knows the main provisions that are of decisive importance in performance of practice tasks. Errors in the answers are not significant.	All requirements regarding the completion of educational practice, tasks, creativity and thoughtfulness were demonstrated, and an own solution 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 each topic	At every lesson
2	Verbal feedback from the teacher during the performance of laboratory-practical tasks	At the end of the lesson
3	Verbal feedback from the teacher after listening to a report based on the results of educational practice and testing practical skills	After completing the practice
4	Verbal feedback from the teacher after the awardee's presentation on the topic of independent study of individual topics of the OK	During classes after the winner's report

6. EDUCATIONAL RESOURCES (LITERATURE)

Main sources

1. Animal hygiene M.V. Demchuk, M.V. Black, M.O. Zakharenko, M.P. Vysokos, Kharkiv: Espada, 2006, 520 p.
2. Zasekin D.A. Sanitary standards for livestock and processing enterprises of Ukraine / D.A. Zasekin, V. M. Polyakovsky. K.: "NVP INTERSERVICE" LLC. 2011. 220 p.
3. Bukalova N.V. Veterinary and sanitary examination of feed, feed additives and raw materials for their production: training. manual / N.V. Bukalova, N.M. Bogatko, O.A. Hitska K.: Agrarian education, 2010. 461 p.
4. Methodological foundations and methods of scientific research in veterinary hygiene, sanitation and expertise: educational and methodological manual / [Antonenko P.P., Dorovskikh A.V., Vysokos M.P., Mylostyviy R.V., Kalinichenko O.O ., Vasylenko T.O.]. Dnipro: Svidler A.L. Publishing House, 2018. 276 p.
5. Animal hygiene / M.V. Demchuk, M.V. Chorniy, M.P. Vysokos, Ya.S. Pavlyuk; under the editorship M. V. Demchuk. K.: Urozhai, 1996. 384 p.
6. Demchuk M.V., Chornyi M.V., Vysokos M.P. Workshop for laboratory-practical classes on hygiene. Kharkiv, Espada, 2003. 215 p.
7. Demchuk M.V. Animal hygiene: Workshop / V.V. Demchuk, Y.V. Andrusyshyn, E.S. Gavrilets and others; Under the editorship M. V. Demchuk. K.: "Agricultural Education", 1994. 328 p.
8. Zakharenko M.O., Polovyi L.V., Shevchenko L.V., Yaremchuk O.S. etc. Normative requirements for the microclimate of premises for keeping farm animals and their energy-saving justification. Education manual. Kyiv. Center of educational literature. 2019. 248 p.

Methodical support

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