



EDUCATIONAL PROGRAM

8D09 - Veterinary

(Code and classification of the field of education)

8D091 - Veterinary

(Code and classification of the direction of training)

0841

(Code in the International Standard Classification of Education)

D138 - Veterinary science

(Code and classification of the educational program group)

8D09102 - Veterinary sanitation

(Code and name of the educational program)

Doctor of philosophy (PhD)

(Level of preparation)

Semey

Educational program

8D09 - Veterinary

(Code and classification of the field of education)

8D091 - Veterinary

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0841

(Code in the International Standard Classification of Education)

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PREFACE

Developed

The educational program 8D09102 - Veterinary sanitation in the direction of preparation 8D091 - Veterinary on the basis of the State Compulsory Standards of Higher and Postgraduate Education approved by the Order of the Ministry of Science and Higher Education of the Republic of Kazakhstan dated July 20, 2022 No 2 (as amended by the order) was developed by the Academic Committee dated 20.02.2023 No 66).

Members of the Academic Committee	Full name	Academic degree, academic title, position	Signature
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Reviewing

Full name of the reviewer	Position, place of work	Signature
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Reviewed

At the meeting of the Commission on Quality Assurance of Veterinary Medicine and Agricultural Management

Recommended for approval by the Academic Council of the University

Protocol № 4.1 "06" April 2023

Chairman of the Commission G.I. Dzhamanova

Approved at the meeting of the Academic Council of the University Protocol No. 8 "25" April 2023.

Approved

at the meeting of the Academic Council of the University

Protocol № 1 "01" of September 2023

Chairman of the Academic Council of the University Orynbekov D.R.

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1.Introduction

1.1.General data

The educational program has been developed taking into account the needs of the regional labor market, the requirements of the regulatory documents of the Ministry of Science and Higher Education of the Republic of Kazakhstan and is a system of documents for organizing the educational process.

The educational program 8D09102- Veterinary Sanitation is designed on the basis of a modular system for studying disciplines. It contains two modules that form general cultural and professional competencies. The EP was developed in accordance with the State Educational Standard of Software 2022.

1.2.Completion criteria

The main criterion for the completion of the educational process for the preparation of doctoral students is the development of students at least 45 theoretical training credits, including at least 10 teaching practice credits, 10 research practice credits, at least 123 research work credits (R&D), at least 12 credits for final certification. Only 180 credits.

1.3.Typical study duration: 3 years

2.PASSPORT OF THE EDUCATIONAL PROGRAM

2.1.EP purpose	Training of scientific and pedagogical personnel of the highest qualification capable of innovations in the field of science, education, management.
2.2.Map of the training profile within the educational program	
Code and classification of the field of education	8D09 - Veterinary
Code and classification of the direction of training	8D091 - Veterinary
Code in the International Standard Classification of Education	0841
Code and classification of the educational program group	D138 - Veterinary science
Code and name of the educational program	8D09102 - Veterinary sanitation
2.3.Qualification characteristics of the graduate	
Degree awarded / qualification	Doctor of Philosophy PhD in the educational program
Name of the profession / list of positions of a specialist	Senior Lecturer, Associate Professor, Professor of the Department; Head of the department; Dean of the Faculty Researcher at universities and research institutes; Heads of departments in veterinary laboratories Chief veterinary and sanitary doctors in the field of production.
OQF qualification level (industry qualification framework)	8
Area of professional activity	Scientific, scientific-pedagogical, managerial activity
Object of professional activity	<ul style="list-style-type: none"> - Universities and colleges with EP in the direction of "Veterinary"; - research veterinary organizations; - Republican State Enterprise "Republican Veterinary Laboratory"; - State Institution "National Reference Center for Veterinary Medicine"; - enterprises for the production, processing, storage, sale of food and feed of animal and vegetable origin; - laboratories of veterinary and sanitary examination - institutions of the state customs service and checkpoints.
Types of professional activity	<p>Expert Supervisory-</p> <ul style="list-style-type: none"> -assessment of the quality and safety of products of animal and vegetable origin; - veterinary and sanitary control over the production, transportation, and sale of products and raw materials of animal origin; - prevention of diseases transmitted through products and raw materials of animal origin; - protection of the territory of the Republic of Kazakhstan from the introduction of infectious diseases through imported products and raw materials. <p>Research</p> <ul style="list-style-type: none"> - conducting scientific research and experiments in research and production institutions of the veterinary, biological, ecological and food fields. <p>Production and technological</p>

	<ul style="list-style-type: none"> - organization and control over compliance with the technology of production, processing, storage, transportation and sale of products of animal and vegetable origin; organization and control over the manufacture and use of medicines, biological preparations and feed additives; control over the harvesting and preparation of feed for feeding. <p>Organizational and managerial</p> <ul style="list-style-type: none"> - control over compliance with veterinary legislation on the territory of the Republic of Kazakhstan; - control of biological pollution of the environment; - training and monitoring compliance by veterinary personnel and other workers in livestock, poultry and fish farming with safety precautions when working with animals, birds and fish; - control over compliance with veterinary and sanitary rules in the production and sale of products of fish farming, poultry farming, animal and plant origin, biologically active substances and additives; - management of a professional team carrying out expert and supervisory activities, assessment of the economic efficiency of veterinary and sanitary measures. <p>Design</p> <ul style="list-style-type: none"> - participation in the preparation and examination of design estimates for the construction of food, meat and dairy facilities (meat processing plants, slaughterhouses, slaughterhouses, dairy plants, mini-factories for the production of sausages, canned food, cheese dairies, etc.) industry, trade network, laboratory and veterinary and sanitary market expertise. <p>educational(pedagogical)</p> <ul style="list-style-type: none"> - pedagogical work in secondary vocational schools in the specialty profile, - training and retraining of veterinary specialists carrying out expert and supervisory activities.
Graduate Model	<p>Objectives of the educational program</p> <p>The main objectives of the educational doctoral program in specialty 8D09102 - "Veterinary Sanitation" are:</p> <ul style="list-style-type: none"> -teach doctoral students modern methods of practical organization and conduct of work on veterinary and sanitary examination of food products; - mastery by doctoral students of the requirements of state veterinary and sanitary control for product safety; -to develop doctoral students' ability to self-improvement and master new knowledge; - possess modern methods for assessing the quality and safety of food products during procurement, processing, production, transportation, storage and sales; - monitor the veterinary and sanitary condition of enterprises processing products and raw materials of animal origin and ensure the production of high-quality products; - critically analyze, evaluate and synthesize new and complex ideas; -mastery of competent and developed speech, culture

of thinking and skills of scientific organization of work in the structures of veterinary medicine, education and business;

-provide an individual educational trajectory in accordance with the specialization chosen by doctoral students;

-promote the acquisition of skills to participate in scientific events at various levels, and continue scientific training in postdoctoral studies.

The results of the doctoral student's training in 8D09102 - "Veterinary Sanitation" (6th qualification level of the NQF) in accordance with the Dublin descriptors of the first level assume the ability to:

-apply scientific developments of veterinary and sanitary examination at objects of veterinary and sanitary control based on the principles of HACCP;

-conduct sanitary and environmental monitoring of livestock and poultry farming facilities;

- apply methods for assessing the quality and safety of products of animal and plant origin;

- introduce innovative methods of pedagogical technologies into the educational process;

- exercise control over the safety and quality of raw materials, materials and finished products of animal and plant origin at the stages of production and storage;

- organize and conduct scientific research in veterinary medicine;

- use modern methods in scientific, pedagogical and production activities;

- apply modern methods for determining the main foreign substances, genetically modified and other contaminants contained in food products.

Professional competencies

- assessment of the quality and safety of products of animal and plant origin;

- own modern methods for assessing the quality and safety of food products during procurement, processing, production, transportation, storage and sales;

- control over compliance with veterinary and sanitary rules in the production and sale of fish, poultry, animal and plant products, biologically active substances and additives;

- management of a professional team carrying out expert supervision activities, assessing the economic efficiency of veterinary and sanitary measures;

-training and retraining of veterinary specialists carrying out expert supervision activities;

- mastering test methods that allow qualified quality examination of products, giving an objective sanitary assessment and finding ways to use them depending on the results.

Personal qualities of a doctoral student

A doctoral student in the specialty 8D09102 - "Veterinary Sanitation" conducts active research work, carries out pedagogical activities in training, education, and development of the potential of undergraduates and students, participates in the management of the department and other types of

	<p>organizational activities.</p> <p>The main goal allows doctoral students to develop such personal qualities as high civic responsibility, legal self-awareness, spirituality and culture, initiative, independence, tolerance, patriotism, the ability for successful socialization in society, analytical and critical thinking.</p>
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3. Modules and content of the educational program

Food safety

Academic writing

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	33048 (3011035)
Course	1
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

The discipline studies concepts and models of academic writing. Genres of academic writing from the text. Use various models and technologies of academic writing in the work on the text. Methods of editing and editing of scientific text, types and techniques of its editing. Analyze and use international norms and requirements for a scientific text. The doctoral student should be able to describe the search for bibliographic sources and databases. Prepare annotation and censorship for scientific papers.

Purpose of studying of the discipline

fFamiliarization of doctoral students with the main varieties of scientific discourse, the study of the features of the scientific style of speech, its main genres, the formation of skills for creating written and oral academic texts, mastering the basic principles of communication in the academic environment.

Learning Outcomes

ON1 Own the methodology of writing scientific texts: essays, term papers, diplomas, doctoral dissertations, articles, monographs.

ON5 Introduce innovative methods of educational technology in the educational process.

Prerequisites

Masters degree course

Postrequisites

Modern problems of food safety

Veterinary-sanitary examination with the basics of HACCP

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	32676 (3011034)
Course	1
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the basics, principles and steps of HACCP implementation at livestock industry enterprises. Hazard analysis and assessment of critical control points in production. Development of a Production control Program and a HACCP Plan in production.

To analyze the veterinary and sanitary examination taking into account the analysis of hazards and the assessment of critical control points at the stages of the technological process in accordance with the requirements of HACCP.

Development of a monitoring system and conducting veterinary and sanitary examination at the stages of critical control points.

Purpose of studying of the discipline

Training of PhD students with a high level of professional culture, understanding and solving modern scientific and practical problems in science and practice; knowledge of Veterinary Information in Kazakhstan and abroad, consciously answering questions of state veterinary control over Product Safety; Promotion of research and management in various fields of Veterinary Medicine.

Learning Outcomes

ON2 Apply scientific developments of veterinary and sanitary examination at the objects of veterinary and sanitary control based on the principles of HACCP.

ON5 Introduce innovative methods of educational technology in the educational process.

ON7 To control the safety and quality of raw materials, materials and finished products of animal and vegetable origin at the stages of production and storage.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Masters degree course

Postrequisites

Modern problems of food safety

Research methods

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	32711 (3011036)
Course	1
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

Functions of science. Scientific knowledge, its principles, the laws of obtaining, the level of education. The logic of scientific research. The hypothesis of the study. A systematic approach in science and technology. Information approach in research. Modeling. Transformation of information in the process of research. The choice of a problem in scientific research. Planning and control of scientific research. Examination and presentation of the results of scientific research.

Purpose of studying of the discipline

Preparation of PhD doctors of a high level of professional culture who are able to comprehend and solve modern scientific and practical problems in science and practice; know information on veterinary medicine in Kazakhstan and abroad, consciously answer questions of state veterinary control of product safety; promote research and management in various fields of veterinary medicine.

Learning Outcomes

ON5 Introduce innovative methods of educational technology in the educational process.

ON8 Organize and conduct research on veterinary medicine.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Masters degree course

Postrequisites

Modern problems of food safety

Doctoral student research work, including internship and doctoral dissertation I

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	33049 (3011045)
Course	1
Term	1
Credits count	15
Working practice	450hours
Total	450hours
Knowledge control form	Total mark on practice

Short description of discipline

Forms in-depth knowledge and skills in the chosen doctoral program in the direction of veterinary medicine. It provides an opportunity to study general scientific and special methods of conducting modern research, as well as the basic principles of organizing and planning scientific work. Helps to master the general requirements for the structure, content and design of the doctoral student's scientific work. Develops the ability to find, process and analyze scientific literature, develop modern research methods when performing research work. Allows for the approbation and implementation of the results of scientific research into production.

Purpose of studying of the discipline

The purpose of the research work is to prepare a doctoral student who knows how to apply new theoretical, methodological and technological achievements of domestic and foreign veterinary science, apply modern methods of scientific research, processing and interpretation of experimental knowledge in the field of veterinary medicine. Planning and organization of scientific experiments on approved topics.

Learning Outcomes

ON8 Organize and conduct research on veterinary medicine.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation II Doctoral student research work, including internship and doctoral dissertation III

Food and dietary supplement safety

Discipline cycle	Profiling discipline
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Discipline component	Electives
SubjectID	33228 (3014270)
Course	1
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the classification of biological additives by groups. Hazard (risk) factors excess of toxic elements, mycotoxins, pesticides, dosage, mechanical and biological contamination of products.

To evaluate laboratory studies of the safety and quality of raw materials and finished products. Methods and results of identification of biologically active additives by codes.

Rules and forms of registration of the results of the protocol. Requirements for production, packaging and labeling in accordance with the Law of the Republic of Kazakhstan "On food safety."

Purpose of studying of the discipline

To study organoleptic, physico-chemical, microbiological, technological properties, other quality and safety indicators depending on the type of food ingredients and their purpose.

Learning Outcomes

ON4 Apply methods for assessing the quality and safety of products of animal and vegetable origin.

ON6 Apply modern methods for determining the main foreign substances, genetically modified and other contaminants contained in food products.

ON7 To control the safety and quality of raw materials, materials and finished products of animal and vegetable origin at the stages of production and storage.

ON8 Organize and conduct research on veterinary medicine.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation VI Doctoral student research work, including internship and doctoral dissertation III

Veterinary and sanitary control nitrate plant products

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	33058 (3011039)
Course	1
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the permissible levels of nitrates and nitrites in plant products. The dangers of exceeding the norms of nitrates and nitrites in plant products for humans, in feed – for cattle, cattle, poultry. Methods and equipment for determining the content of nitrates and nitrites in plant products. The reasons for the excess of nitrate and nitrite content in plant products, measures to prevent and reduce indicators.

Purpose of studying of the discipline

To study methods of veterinary and sanitary control of plant products for the presence of nitrates, nitrites and nitros compounds.

Learning Outcomes

ON4 Apply methods for assessing the quality and safety of products of animal and vegetable origin.

ON6 Apply modern methods for determining the main foreign substances, genetically modified and other contaminants contained in food products.

ON7 To control the safety and quality of raw materials, materials and finished products of animal and vegetable origin at the stages of production and storage.

ON8 Organize and conduct research on veterinary medicine.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation VI Doctoral student research work, including internship and doctoral dissertation III

Modern problems of food safety

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	33060 (3014268)
Course	1
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

When mastering the discipline, the issues of food quality and safety are considered. They study the most common contaminants and types of falsification both in the Republic of Kazakhstan and abroad. They master modern research methods and means of identification, examination, evaluation of the quality and safety of raw materials. The doctoral student should be guided by the basic laws of the Customs Union, the EAEU, the WTO, ISO standards regulating the production of quality products. Monitor the quality and safety of food.

Purpose of studying of the discipline

The purpose of studying the discipline is to form the necessary theoretical knowledge and practical skills in the field of food quality and safety management on the basis of systematic identification, assessment and management of hazardous factors affecting product safety.

Learning Outcomes

ON4 Apply methods for assessing the quality and safety of products of animal and vegetable origin.

ON6 Apply modern methods for determining the main foreign substances, genetically modified and other contaminants contained in food products.

ON7 To control the safety and quality of raw materials, materials and finished products of animal and vegetable origin at the stages of production and storage.

ON8 Organize and conduct research on veterinary medicine.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation VI Doctoral student research work, including internship and doctoral dissertation III

Модуль 2.Safety and quality of livestock products

Veterinary and sanitary examination and safety of feed of animal origin

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	33127 (3014269)
Course	1
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

When studying the discipline, the modern classification of feed and feed additives is studied. The nutritional value, chemical composition and safety indicators of feed, compound feed and raw materials for their production are being monitored at modern agro-industrial enterprises. Doctoral students acquire the skills to carry out an examination of the quality and safety of feed in accordance with the requirements of international standards and veterinary and sanitary rules in domestic conditions. Production technology, methods and requirements for storage and preparation for feeding.

Purpose of studying of the discipline

Prepare doctoral students in the field of veterinary and sanitary expertise and safety of animal feed, providing them with the necessary knowledge, skills and competencies to conduct high-quality scientific research in this field.

Learning Outcomes

ON4 Apply methods for assessing the quality and safety of products of animal and vegetable origin.

ON6 Apply modern methods for determining the main foreign substances, genetically modified and other contaminants contained in food products.

ON7 To control the safety and quality of raw materials, materials and finished products of animal and vegetable origin at the stages of production and storage.

ON8 Organize and conduct research on veterinary medicine.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation VI Doctoral student research work, including internship and doctoral dissertation III

Veterinary and environmental safety assessment of livestock production

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	33051 (3011038)
Course	1
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the goals and principles of veterinary and environmental assessment of the safety of livestock production. Norms of pollutants in feed, the environment (soil, water, air), and animal products. Legislative and regulatory acts in the field of ecology and veterinary medicine for the production of livestock products. Methods for assessing, predicting and preventing the impact of environmental hazards on livestock products, including measuring the impact on the safety of livestock products

Purpose of studying of the discipline

Training of doctors capable of assessing the safety of livestock production. To master the methods, organization and conduct of sanitary and environmental monitoring of livestock facilities.

Learning Outcomes

ON3 Conduct sanitary and environmental monitoring of livestock and poultry.

ON6 Apply modern methods for determining the main foreign substances, genetically modified and other contaminants contained in food products.

ON7 To control the safety and quality of raw materials, materials and finished products of animal and vegetable origin at the stages of production and storage.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation IV Doctoral student research work, including internship and doctoral dissertation III

Doctoral student research work, including internship and doctoral dissertation II

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	33118 (3011046)
Course	1
Term	2
Credits count	20
Working practice	600hours
Total	600hours
Knowledge control form	Total mark on practice

Short description of discipline

Forms in-depth knowledge and skills in the chosen doctoral program in the direction of veterinary medicine. It provides an opportunity to study general scientific and special methods of conducting modern research, as well as the basic principles of organizing and planning scientific work. Helps to master the general requirements for the structure, content and design of the doctoral student's scientific work. Develops the ability to find, process and analyze scientific literature, develop modern research methods when performing research work. Allows for the approbation and implementation of the results of scientific research into production.

Purpose of studying of the discipline

To prepare a doctoral student who owns new theoretical, methodological and technological achievements of domestic and foreign veterinary science, to apply modern methods of scientific research, processing and interpretation of experimental knowledge in the field of veterinary medicine. Planning and organization of scientific experiments on approved topics.

Learning Outcomes

ON1 Own the methodology of writing scientific texts: essays, term papers, diplomas, doctoral dissertations, articles, monographs.

ON8 Organize and conduct research on veterinary medicine.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation VI Doctoral student research work, including internship

and doctoral dissertation III

Veterinary and sanitary control nitrate plant products

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	33050 (3011037)
Course	1
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	30hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Examination

Short description of discipline

The discipline studies environmental and sanitary problems in animal husbandry and poultry farming. Ecological passport of the livestock complex. Conducting systematic monitoring of compliance with environmental safety on the territory of farms and complexes. The impact of environmental pollution by wastewater and waste disposal methods Monitoring of the environmental situation. Analyzes information materials on the concentration of pollutants and develops measures to eliminate violations of environmental legislation. Conducts an examination of the environmental safety of animal products

Purpose of studying of the discipline

Preparation of PhD students capable of formulating and solving modern scientific and practical problems in science and production;
-able to professionally solve issues of state veterinary control over the safety of products and possess information on the state of veterinary medicine in Kazakhstan and abroad;
- successfully carry out research and management activities in various structures of veterinary medicine.

Learning Outcomes

ON3 Conduct sanitary and environmental monitoring of livestock and poultry.

ON5 Introduce innovative methods of educational technology in the educational process.

ON7 To control the safety and quality of raw materials, materials and finished products of animal and vegetable origin at the stages of production and storage.

ON8 Organize and conduct research on veterinary medicine.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Masters degree course

Postrequisites

Doctoral student research work, including internship and doctoral dissertation VI Doctoral student research work, including internship and doctoral dissertation III

Pedagogical practice

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	33369 (3011040)
Course	2
Term	1
Credits count	10
Pedagogical practices	300hours
Total	300hours
Knowledge control form	Total mark on practice

Short description of discipline

the pedagogical practice of doctoral students is aimed at the formation of functional competencies, the development of abilities to perform tasks in the professional and educational spheres. In the process of pedagogical practice, the professional and personal development of future teachers is activated. During the practice, doctoral students draw up and implement an educational activity plan with a group of students, develop and conduct a system of classes reflecting the completed segment of the learning process based on the content of the profile disciplines, demonstrate mastery of modern technologies and teaching methods.

Purpose of studying of the discipline

The purpose of pedagogical practice: the formation and development of the doctoral student's professional skills of a higher school teacher; mastering the basics of pedagogical skills, skills and skills of independent conduct of educational work.

Learning Outcomes

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Research methods

Postrequisites

Doctoral student research work, including internship and doctoral dissertation IV Doctoral student research work, including internship and doctoral dissertation V

Doctoral student research work, including internship and doctoral dissertation III

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	33370 (3011050)
Course	2
Term	1
Credits count	20
Working practice	600hours
Total	600hours
Knowledge control form	Total mark on practice

Short description of discipline

Forms in-depth knowledge and skills in the chosen doctoral program in the direction of veterinary medicine. It provides an opportunity to study general scientific and special methods of conducting modern research, as well as the basic principles of organizing and planning scientific work. Helps to master the general requirements for the structure, content and design of the doctoral student's scientific work. Develops the ability to find, process and analyze scientific literature, develop modern research methods when performing research work. Allows for the approbation and implementation of the results of scientific research into production.

Purpose of studying of the discipline

The purpose of the research work is to prepare a doctoral student who owns new theoretical, methodological and technological achievements of domestic and foreign veterinary science, to apply modern methods of scientific research, processing and interpretation of experimental knowledge in the field of veterinary medicine. Planning, organization of scientific experiments on approved topics and implementation of research results.

Learning Outcomes

ON8 Organize and conduct research on veterinary medicine.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Research methods

Postrequisites

Doctoral student research work, including internship and doctoral dissertation IV Doctoral student research work, including internship and doctoral dissertation V

Doctoral student research work, including internship and doctoral dissertation IV

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	33371 (3011047)
Course	2
Term	2
Credits count	30
Working practice	900hours
Total	900hours
Knowledge control form	Total mark on practice

Short description of discipline

Forms in-depth knowledge and skills in the chosen doctoral program in the direction of veterinary medicine. It provides an opportunity to study general scientific and special methods of conducting modern research, as well as the basic principles of organizing and planning scientific work. Helps to master the general requirements for the structure, content and design of the doctoral student's scientific work. Develops the ability to find, process and analyze scientific literature, develop modern research methods when performing research work. Allows for the approbation and implementation of the results of scientific research into production.

Purpose of studying of the discipline

The purpose of the research work is to prepare a doctoral student who owns new theoretical, methodological and technological achievements of domestic and foreign veterinary science, to apply modern methods of scientific research, processing and interpretation of experimental knowledge in the field of veterinary medicine. Planning and organization of scientific experiments on approved topics.

Learning Outcomes

ON8 Organize and conduct research on veterinary medicine.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Doctoral student research work, including internship and doctoral dissertation IV

Postrequisites

Final examination

Research practice

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	33374 (3011044)
Course	3
Term	1
Credits count	10
Working practice	300hours
Total	300hours

Knowledge control form Total mark on practice

Short description of discipline

Purpose of studying of the discipline

Learning Outcomes

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Research methods

Postrequisites

Doctoral student research work, including internship and doctoral dissertation VI

Doctoral student research work, including internship and doctoral dissertation V

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	33375 (3011048)
Course	3
Term	1
Credits count	20
Working practice	600hours
Total	600hours
Knowledge control form	Total mark on practice

Short description of discipline

Purpose of studying of the discipline

Learning Outcomes

ON8 Organize and conduct research on veterinary medicine.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Research methods Modern problems of food safety

Postrequisites

Final examination

Doctoral student research work, including internship and doctoral dissertation VI

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	33376 (3011049)
Course	3
Term	2
Credits count	18
Working practice	540hours
Total	540hours
Knowledge control form	Total mark on practice

Short description of discipline

Purpose of studying of the discipline

Learning Outcomes

ON8 Organize and conduct research on veterinary medicine.

ON9 Use modern techniques in scientific, educational and industrial activities.

Prerequisites

Research practice Doctoral student research work, including internship and doctoral dissertation IV

Postrequisites

Final examination

Final examination

Doctoral dissertation

Credits count	12
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4. Summary table on the scope of the educational program

«8D09102 - Veterinary sanitation»

Name of discipline	Cycle/ Component	Term	Number of credits	Total hours	Lec	SPL	LC	IWST	IWS	Knowledge control form
Food safety										
Academic writing	BS/US	1	5	150	15	30		35	70	Examination
Veterinary-sanitary examination with the basics of HACCP	BS/US	1	5	150	15	30		35	70	Examination
Research methods	BS/US	1	5	150	15	30		35	70	Examination
Doctoral student research work, including internship and doctoral dissertation I	AS/US	1	15	450						Total mark on practice
Food and dietary supplement safety	AS/CCh	2	5	150	15	30		35	70	Examination
Veterinary and sanitary control nitrate plant products	AS/CCh	2	5	150	15	30		35	70	Examination
Modern problems of food safety	AS/CCh	2	5	150	15	30		35	70	Examination
Модуль 2. Safety and quality of livestock products										
Veterinary and sanitary examination and safety of feed of animal origin	AS/CCh	2	5	150	15	30		35	70	Examination
Veterinary and environmental safety assessment of livestock production	AS/CCh	2	5	150	15	30		35	70	Examination
Doctoral student research work, including internship and doctoral dissertation II	AS/US	2	20	600						Total mark on practice
Veterinary and sanitary control nitrate plant products	AS/CCh	2	5	150	15	30		35	70	Examination
Pedagogical practice	BS/US	3	10	300						Total mark on practice
Doctoral student research work, including internship and doctoral dissertation III	AS/US	3	20	600						Total mark on practice
Doctoral student research work, including internship and doctoral dissertation IV	AS/US	4	30	900						Total mark on practice
Research practice	AS/US	5	10	300						Total mark on practice
Doctoral student research work, including internship and doctoral dissertation V	AS/US	5	20	600						Total mark on practice
Doctoral student research work, including internship and doctoral dissertation VI	AS/US	6	18	540						Total mark on practice
Final examination										
Doctoral dissertation		10	12	360						