



EDUCATIONAL PROGRAM

6B09 - Veterinary

(Code and classification of the field of education)

6B091 - Veterinary

(Code and classification of the direction of training)

0841

(Code in the International Standard Classification of Education)

B083 - Veterinary Science

(Code and classification of the educational program group)

6B09103 - Veterinary

(Code and name of the educational program)

Specialist

(Level of preparation)

Semey

Educational program

6B09 - Veterinary

(Code and classification of the field of education)

6B091 - Veterinary

(Code and classification of the direction of training)

0841

(Code in the International Standard Classification of Education)

B083 - Veterinary Science

(Code and classification of the educational program group)

6B09103 - Veterinary

(Code and name of the educational program)

(Level of preparation)

PREFACE

Developed

The educational program 6B09103 - Veterinary in the direction of preparation 6B091 - 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).

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Reviewing

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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 Jamanova G.

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.

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1.Introduction

1.1.General data

The educational program, "Veterinary Medicine" implemented by the Department of Veterinary Medicine, Faculty of Veterinary Medicine and Agricultural Management of the NAO State University named after Shakarim of Semey, was developed taking into account the needs of the regional labor market, the requirements of regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan and is a system of documents for the organization of the educational process.

The educational program regulates the goals, expected results, content, conditions and technologies for the implementation of the educational process, assessment of the quality of graduate training in this field of training and contains a description of the program and the direction of professional activity of the graduate, the results of training and acquired competencies, the policy of evaluating the results of training, the organization of the educational process that ensures the quality of training of students, a description of the modules that make up the educational program, methodological materials.

The educational program provides for the education of a student with special educational needs in the conditions of a higher educational institution, as well as his socialization and integration into society.

1.2.Completion criteria

The main criterion for the completion of the educational process in the direction of training "6B09 - Veterinary" is the development of at least 265 credits of theoretical training, as well as at least 27 credits of practical training, 8 credits of final certification.

Only 300 credits.

1.3.Typical study duration: 5 years

2.PASSPORT OF THE EDUCATIONAL PROGRAM

2.1.EP purpose	Prepare competitive specialists who meet modern requirements in the field of veterinary medicine, veterinary and sanitary control and supervision in the export and import of animals, raw materials of animal and plant origin.
2.2.Map of the training profile within the educational program	
Code and classification of the field of education	6B09 - Veterinary
Code and classification of the direction of training	6B091 - Veterinary
Code in the International Standard Classification of Education	0841
Code and classification of the educational program group	B083 - Veterinary Science
Code and name of the educational program	6B09103 - Veterinary
2.3.Qualification characteristics of the graduate	
Degree awarded / qualification	veterinary specialist in the educational program
Name of the profession / list of positions of a specialist	Veterinarian / - all types of economic entities of agricultural production; - transport, circuses, hippodromes, associations engaged in breeding breeding animals; - veterinary clinics, veterinary pharmacies, laboratories, zoos, nature reserves; - institutions of the state veterinary service; - slaughterhouses, animal burial grounds, premises for keeping animals; - military veterinary service; - educational veterinary institutions.
OQF qualification level (industry qualification framework)	6
Area of professional activity	In the field of medical activity: diagnostics, treatment, prevention of non-contagious and contagious diseases of animals, birds, fish and bees. In the field of experimental research activities: study of the etiology, development mechanism and features of the manifestation of animal diseases; conducting comparative clinical, biochemical, post-mortem and immunological studies of sick animals; introduction of effective therapeutic and preventive measures for diseases of animals of various etiologies, veterinary and sanitary examination of meat, dairy products of animal husbandry. In the field of educational activity: pedagogical work in secondary vocational schools in the specialty profile; training and retraining of veterinary, livestock and biological specialists; training of owners on the basics of animal hygiene.
Object of professional activity	The objects of professional activity are: - all types of economic entities of agricultural production; - transport, circuses, hippodromes, associations engaged in breeding breeding animals; - veterinary clinics, veterinary pharmacies, laboratories, zoos, reserves, veterinary laboratories;

	<ul style="list-style-type: none"> - institutions of the state veterinary service; - slaughterhouses, animal burial grounds, premises for keeping animals; - military veterinary service; - educational veterinary institutions.
Types of professional activity	<p>A specialist in this area should be trained to:</p> <ul style="list-style-type: none"> - diagnostics, prevention and treatment of non-contagious and contagious diseases of animals, birds and fish bred in farms of various directions and forms of ownership; - prevention of diseases of non-contagious etiology, infectious diseases; - development and circulation of medicines for animals; - environmental protection.
Graduate Model	<p>As a result of training, the Bachelor of OP 6B09103-Veterinary Medicine must receive all the necessary knowledge, skills and skills that ensure the high-quality fulfillment of the functional duties of a veterinarian at work. As well as acquire socio-humanitarian, economic, organizational and managerial, general scientific competencies, which serve as a foundation that provides the graduate with mobility in the labor market.</p>

3. Modules and content of the educational program

Module 1. Fundamentals of social and humanitarian knowledge

Foreign language

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31179 (3021202)
Course	1
Term	1
Credits count	5
Practical and seminar classes	45hours
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 content of the discipline «Foreign language» assumes the formation of students` intercultural and communicative competencies at B1 level. The discipline is aimed at mastering the knowledge, skills and abilities that allow using a foreign language in interpersonal communication and professional activity. All types of speech activity are taught, such as reading, writing, listening and production of texts of level complexity with a certain degree of grammatical and lexical correctness.

Purpose of studying of the discipline

Formation of intercultural and communicative competence of students in the process of foreign language education at a sufficient level (A2, pan-European competence) and the level of basic sufficiency (B1, pan-European competence). Depending on the level of training, the student at the time of completion of the course reaches the B1 level of the pan-European competence if the language level of the student at the start is higher than the A2 level of the pan-European competence.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Foreign language

History of Kazakhstan

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31183 (3021289)
Course	1
Term	1
Credits count	5
Lectures	30hours
Practical and seminar classes	15hours
Independent work of a student under the guidance of a teacher	35hours
Independent work of the student	70hours
Total	150hours
Knowledge control form	Qualification examination

Short description of discipline

The main stages of the history of Kazakhstan are studied with: nomadic statehood, Turkic civilization, the era of colonialism, the Soviet period, independence. The driving forces, trends, patterns of historical development are analyzed; problems: ethnogenesis of the Kazakh people, the formation of statehood, national liberation movements, demographic development. The skills of analyzing historical events and facts, working with historical literature are being formed.

Purpose of studying of the discipline

The purpose of the discipline is to provide objective knowledge about the main stages of the development of the history of Kazakhstan from ancient times to the present.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Philosophy

Kazakh language

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31180 (3021204)
Course	1
Term	1
Credits count	5
Practical and seminar classes	45hours
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 is aimed at deepening the acquired knowledge of students in the framework of the school curriculum, as well as the use of language and speech means based on a full understanding of vocabulary and grammatical system of knowledge; the formation of socio-humanitarian worldview of students within the framework of the national idea of spiritual revival; free expression of mobile thought as a means of speech communication and in the process of communication; awareness of the national culture of the people, the ability to distinguish features of national cognition.

Purpose of studying of the discipline

Forms through phraseological units the recognition of national culture, its meaning as a linguistic unit related to spiritual culture; skills of identifying facts of national and cultural significance in the formation of Kazakh phraseology.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Kazakh language

Bases of economics, law and ecological knowledge

Discipline cycle	General educational disciplines
Discipline component	University component
SubjectID	31184 (3021293)
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 integrated discipline includes the main issues and principles in the field of fundamentals of law and anti-corruption culture, economics, entrepreneurship and leadership, ecology and life safety. Features of the use of regulatory legal acts, the ability to use the business, ethical, social, economic, entrepreneurial and environmental standards of society. Specifics of environmental-legal, economic, entrepreneurial relations, leadership qualities and principles of combating corruption.

Purpose of studying of the discipline

It consists in studying the basic patterns of the functioning of living organisms, the biosphere as a whole and the mechanisms of their sustainable development under the conditions of anthropogenic impact and emergency situations; in understanding the concept of corruption, the legitimacy of the fight against it, the content of the state penal policy; in the formation of students' basic fundamental stable knowledge on the basics of economic theory, in instilling the skills and abilities of economic thinking; in introducing students to the theory and practice of entrepreneurship, to the basics of creating their own business; in the formation of theoretical knowledge and practical skills for the development and improvement of leadership qualities.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Basic and profile disciplines of the EP

Russian language

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31181 (3021206)

Course	1
Term	1
Credits count	5
Practical and seminar classes	45hours
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 is intended for the development of the language personality of the student, who is able to carry out cognitive and communicative activities in Russian in the areas of interpersonal, social, professional, intercultural communication; for teaching students practical mastery of the Russian language in various areas of communication and various situations, mastering the specifics of functional semantic types and genres of functional styles of speech, enriching the vocabulary with special vocabulary, forming and improving the skills of monologue and dialogic speech.

Purpose of studying of the discipline

The purpose of the program is to form the socio-humanitarian worldview of students in the context of the national idea of spiritual modernization, involving the development on the basis of national consciousness and cultural code of the qualities of internationalism, tolerant attitude to world cultures and languages as translators of world-class knowledge, advanced modern technologies, the use and transfer of which can ensure the modernization of the country and personal career growth of future specialists.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Russian language

Physical Culture

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31182 (3021210)
Course	1
Term	1
Credits count	2
Practical and seminar classes	60hours
Total	60hours
Knowledge control form	Differentiated attestation

Short description of discipline

It provides for the joint cooperation of a teacher and a student in the process of physical education throughout the training in the context of the requirements for the level of mastering the discipline, preparing students for participation in mass sports competitions; forms motivational and value attitudes towards physical culture and the need for systematic physical exercises and sports; gives basic knowledge about the use of physical culture and sports in the development of vital physical qualities.

Purpose of studying of the discipline

The purpose of the program is the formation of social and personal competencies of students and the ability to purposefully use the means and methods of physical culture, ensuring the preservation, strengthening of health to prepare for professional activities; to the persistent transfer of physical exertion, neuropsychic stress and adverse factors in future work.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Physical Culture

Kazakh language

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31186 (3021205)
Course	1
Term	2
Credits count	5
Practical and seminar classes	45hours
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 is aimed at expanding language literacy, free communication with the environment and mental and ideological skills of the student, understanding the role of language in the process of mastering world-class knowledge through the formation of a future specialist's worldview based on national consciousness and cultural code, improving the knowledge of the state language by future specialists, increasing the scope of use of the Kazakh language by specialists.

Purpose of studying of the discipline

Ensuring high-quality mastery of the Kazakh language as a means of social, intercultural, professional communication through the formation of communicative competencies at all levels of language use.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

Kazakh language

Postrequisites

Basic and profile disciplines of the EP

Foreign language

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31185 (3021203)
Course	1
Term	2
Credits count	5
Practical and seminar classes	45hours
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 content of the discipline «Foreign language» assumes the formation of students'linguo-cultural, socio-cultural, cognitive and communicative competencies at B2 level. The discipline is aimed at deep and extended study of productive and receptive language material. As a result, the student must be able to understand all types of speech activity in accordance with the requirements of B2 level and master the subject content of the discipline and speech.

Purpose of studying of the discipline

Formation of linguo-cultural, socio-cultural, cognitive and communicative competence of students in the process of foreign language education at the B2 level, pan-European competence. Depending on the level of training, the student at the time of completing the course reaches the level B2 of the pan-European competence, if the language level of the student at the start is higher than the level B1 of the pan-European competence.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

Foreign language

Postrequisites

Basic and profile disciplines of the EP

The module of socio-political knowledge (sociology, political science, cultural studies, psychology)

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31189 (3021291)
Course	1
Term	2
Credits count	8
Lectures	30hours
Practical and seminar classes	45hours
Independent work of a student under the guidance of a teacher	55hours
Independent work of the student	110hours
Total	240hours
Knowledge control form	Examination

Short description of discipline

The module of socio-political knowledge involves the study of four scientific disciplines – sociology, political science, cultural studies, psychology, each of which has its own subject, terminology and research methods. Interactions between these scientific disciplines are carried out on the basis of the principles of information complementarity; integrativity; methodological integrity of research approaches of these disciplines; generality of the methodology of learning, result-oriented; unified system representation of the typology of learning outcomes as formed abilities.

Purpose of studying of the discipline

Formation of social and humanitarian worldview of students in the context of solving the problems of modernization of public consciousness, defined by the state program "Looking into the Future: Modernization of Public Consciousness".

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Philosophy

Russian language

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31187 (3021207)
Course	1
Term	2
Credits count	5
Practical and seminar classes	45hours
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 is intended for the development of the language personality of the student, who is able to carry out cognitive and communicative activities in Russian in the areas of interpersonal, social, professional, intercultural communication; to teach the scientific style of speech as a language of specialty, the creation of secondary texts, the formation of skills for the production of oral and written speech in accordance with the communicative goal and the professional sphere of communication, instilling the skills of speech etiquette, business rhetoric.

Purpose of studying of the discipline

The purpose of the program is to form the socio-humanitarian worldview of students in the context of the national idea of spiritual modernization, involving the development on the basis of national consciousness and cultural code of the qualities of internationalism, tolerant attitude to world cultures and languages as translators of world-class knowledge, advanced modern technologies, the use and transfer of which can ensure the modernization of the country and personal career growth of future specialists.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

Russian language

Postrequisites

Basic and profile disciplines of the EP

Physical Culture

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31188 (3021211)
Course	1
Term	2
Credits count	2
Practical and seminar classes	60hours
Total	60hours
Knowledge control form	Differentiated attestation

Short description of discipline

It provides for the joint cooperation of a teacher and a student in the process of physical education throughout the training in the context of the requirements for the level of mastering the discipline, the ability to exercise control and self-control in the process of classes, gaining knowledge on health promotion, hardening and increasing the body's resistance to the effects of adverse factors of labor activity, mastering methods of selection of physical exercises and sports.

Purpose of studying of the discipline

The purpose of the program is the formation of social and personal competencies of students and the ability to purposefully use the means and methods of physical culture, ensuring the preservation, strengthening of health to prepare for professional activities; to the persistent transfer of physical exertion, neuropsychic stress and adverse factors in future work.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

Physical Culture

Postrequisites

Physical Culture

Information and communication technology

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31191 (3021292)
Course	2
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 is aimed at mastering the conceptual foundations of the architecture of computer systems, operating systems and networks by students; formation of the ability to critically understand the role and significance of modern information and communication technologies in the era of digital globalization, new "digital" thinking, knowledge about the concepts of developing network and web applications, skills in using modern information and communication technologies in various fields of professional activity, scientific and practical work, for self-educational and other purposes.

Purpose of studying of the discipline

Formation of the ability to critically evaluate and analyze processes, methods of searching, storing and processing information, methods of collecting and transmitting information through digital technologies

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

School course

Postrequisites

Basic and profile disciplines of the EP

Physical Culture

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31190 (3021212)
Course	2
Term	1
Credits count	2
Practical and seminar classes	60hours
Total	60hours
Knowledge control form	Differentiated attestation

Short description of discipline

Provides for the joint cooperation of the teacher and the student in the process of physical education throughout the training in the context of the requirements for the level of mastering the discipline; increasing the level of physical fitness and developing physical qualities; mastering the technique of sports; education of discipline, collectivism, comradely mutual assistance; education of mental stability, development and improvement of basic motor qualities - endurance, strength, speed, dexterity, flexibility.

Purpose of studying of the discipline

The purpose of the program is the formation of social and personal competencies of students and the ability to purposefully use the means and methods of physical culture, ensuring the preservation, strengthening of health to prepare for professional activities; to the persistent transfer of physical exertion, neuropsychic stress and adverse factors in future work.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

Physical Culture

Postrequisites

Physical Culture

World of Abai

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31192 (3021285)
Course	2
Term	1

Credits count	3
Lectures	15hours
Practical and seminar classes	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

The discipline is aimed at studying historical facts, the philosophical and artistic foundations of the works of Abay Kunanbaev, Shakarim Kudaiberdiev, which form worldview and aesthetic values, the student's ability to express his opinion, practical skills and perception of such human qualities as morality, honesty, artistic character. The genius of the writers of Kazakh literature and the role of M. Auezov in the study and popularization of Abai's heritage, the significance of his works for history, literature and science are determined.

Purpose of studying of the discipline

Formation of the meaning of philosophical and ideological being, understanding of the problems raised in the works of Abai Kunanbayuly, Shakarim Kudaiberdiev, Mukhtar Auezov and application of the acquired knowledge in the practice of everyday life.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

The module of socio-political knowledge (sociology, political science, cultural studies, psychology)

Postrequisites

Basic and profile disciplines of the EP

Physical Culture

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31193 (3021213)
Course	2
Term	2
Credits count	2
Practical and seminar classes	60hours
Total	60hours
Knowledge control form	Differentiated attestation

Short description of discipline

Provides for the joint cooperation of the teacher and the student in the process of physical education throughout the training in the context of the requirements for the level of mastering the discipline; acquisition of versatile abilities and skills for the development of physical abilities, socio-cultural experience and socio-cultural values of physical culture and sports; development of communication skills, thinking, self-development, the formation of experience in the implementation of sports and recreational and training programs.

Purpose of studying of the discipline

The purpose of the program is the formation of social and personal competencies of students and the ability to purposefully use the means and methods of physical culture, ensuring the preservation, strengthening of health to prepare for professional activities; to the persistent transfer of physical exertion, neuropsychic stress and adverse factors in future work.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

Physical Culture

Postrequisites

Basic and profile disciplines of the EP

Philosophy

Discipline cycle	General educational disciplines
Discipline component	Compulsory component
SubjectID	31194 (3021209)
Course	3
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 is aimed at developing students' openness of consciousness, understanding their own national code and self-

consciousness, spiritual modernization, competitiveness, realism and pragmatism, independent critical thinking, the cult of knowledge and education, a holistic view of philosophy as a special form of understanding the world, mastering key worldview concepts, as well as the development and strengthening of the values of tolerance, intercultural dialogue and a culture of peace.

Purpose of studying of the discipline

Formation in students of a holistic view of philosophy as a special form of knowledge of the world, its main sections, problems and methods of studying them in the context of future professional activities.

Learning Outcomes

ON 1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technology, taking into account modern trends in the development of society.

Prerequisites

History of Kazakhstan The module of socio-political knowledge (sociology, political science, cultural studies, psychology)

Postrequisites

Basic and profile disciplines of the EP

Module 2. Professional and communicative

Anatomy of domestic animals

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31611 (3021214)
Course	1
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	0hours
Laboratory works	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

Biomorphological patterns of the structure and development of the organism of animals and birds. The main manifestations of life and the systems that ensure their implementation. Levels of the structural organization of the animal organism. The concept of phyllo- and ontogenesis, their main patterns. Biological bases of adaptation and factors determining species and individual variability (habitat, diet, mode of movement, etc.).

Purpose of studying of the discipline

The purpose of this course is to study the macroscopic structure and the phylo-ontogenetic development of the organ systems of domestic animals.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

School course

Postrequisites

Topographic anatomy

Veterinary Latin terminology

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31612 (3021286)
Course	1
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

He is able logically apply knowledge the Latin language in practice. He is able practically use Latin medical terms field of veterinary medicine. He knows medical terminology, understands Latin terms, writes and reads Latin words fluently. Mastering ethics and deontological principles profession. since discipline important discipline formation profession veterinarian.

Purpose of studying of the discipline

In the course of studying Latin grammar, you will be able to fully master anatomical, pharmacological and clinical terminology, and in the

future, improve the ability to write recommendations (prescriptions), diagnose sick animals and use Latin terms in the field of Veterinary Medicine, and become a knowledgeable specialist in fluency in terms of Veterinary Science.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

School course

Postrequisites

Basic and profile disciplines of the EP

Introduction to the specialty

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31615 (3021287)
Course	1
Term	2
Credits count	3
Lectons	15hours
Practical and seminar classes	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

Introduction to the specialty studies the historical stages of the development of the veterinary profession from ancient times to the present day. Will familiarize students with the achievements of veterinary medicine in the prevention and elimination of infectious diseases common to humans and animals.

Purpose of studying of the discipline

Scientific teaching on the problems of prevention of animal diseases, their treatment, protection of humanity from anthroozoonoses (transmitted to humans) as a result of veterinary examination and inspection, production of sanitary-clean animal products by solving veterinary and sanitary problems in the protection of the external environment.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Veterinary Latin terminology

Postrequisites

Animal husbandry

Topographic anatomy

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31614 (3021284)
Course	1
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	0hours
Laboratory works	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

This discipline applied morphological science that studies layered structure of body areas, location organs and anatomical formations by areas and parts body, and their anatomical functional relationship other organs and areas. The purpose of studying the discipline anatomical and surgical training of students necessary for subsequent classes clinical and surgical.

Purpose of studying of the discipline

Obtaining scientific knowledge on the topographic anatomy of animals and applying this knowledge to substantiate and perform veterinary manipulations and veterinary interventions.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Anatomy of domestic animals

Postrequisites

Animal Physiology

Bioorganic chemistry

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31617 (3021220)
Course	2
Term	1
Credits count	3
Lectures	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

Bioorganic chemistry forms an idea of the biological role of natural compounds, establishes a connection between the structure, reactivity of organic compounds and their biological functions. He also studies the effect of biopolymers on the body, which are structural components of cells and tissues. The role of the main metabolites and low-molecular bioregulators is considered.

Purpose of studying of the discipline

identification of the relationship between the structure of an organic compound and its biological function

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

School course

Postrequisites

Veterinary Pharmacology

Animal Biochemistry

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31613 (3021218)
Course	2
Term	1
Credits count	3
Lectures	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the classification, structure, biological role and ways of metabolism of the main biomolecules that make up the animal cells, methods of storage and transmission of genetic information, the principles of energy transformation in biological systems, the main methods of synthesis of biologically active substances.

Purpose of studying of the discipline

students learn the main classes of biologically important substances, the composition, structure, properties of these substances;

- biological functions performed in the body, mechanisms of action;

- changes, interactions of biological substances in the processes of life, the main ways of formation of substances;

- be able to study the basic biochemical systems and chemical reactions; acquire practical skills to study the composition, structure, and properties of biological substances;

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

School course

Postrequisites

Veterinary Pharmacology

Veterinary genetics

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31621 (3021224)

Course	2
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	30hours
Laboratory works	0hours
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 main objective of the course is to familiarize students with genetics as a fundamental and applied science that studies two important properties of living organisms – heredity and variability. At the same time, the discipline studies hereditary immunity and genetic resistance of animals to diseases, genetic diseases of animals.

Purpose of studying of the discipline

The purpose of this course is to ensure the disclosure of the content of the basic principles, laws and concepts of each section of the course and the development of genetic thinking skills for conscious perception and mastering the methods of genetics.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Veterinary Latin terminology

Postrequisites

Animal Physiology

Veterinary microbiology

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31622 (3021228)
Course	2
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

Discipline reveals the issues of morphology, structure, physiology, genetic/s, ecology of microorganisms, the influence of environmental factors on microorganisms, the role of microbes in the cycle of substances in nature. Gives the concept of infection and immunity, laboratory diagnosis of infectious diseases.

Purpose of studying of the discipline

Introducing students to the world of microscopically small living organisms - microbes and viruses and studying the patterns of their life and development, as well as changes caused by them in humans, animals, plants and inanimate nature.

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

Animal Biochemistry

Postrequisites

Veterinary virology

Veterinary cytology, histology, embryolog

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31623 (3021279)
Course	2
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours

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 deals with development of the general structure cell. Forms of living matter. The Simplast cell. Syncytium. The central organs of the immune system. Characteristics of the central organs immune system - thymus (thymus gland), Fabricius sac, bone marrow. Fabrics. Determination tissues. Principles of the structure of epithelial tissues. General classification.

Purpose of studying of the discipline

To introduce students to the micro- and submicroscopic structure of cells, tissues and organs. Specialization and pathological processes occurring in cells of various types, the study of general patterns of structural organization of living matter.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Veterinary Latin terminology

Postrequisites

Veterinary virology

Animal husbandry

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31618 (3021221)
Course	2
Term	1
Credits count	5
Lections	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 reveals the features of the selection agricultural animals breeding and commodity farms. Modern requirements, promising directions of selection and improvement of existing breeds of agricultural animals. The use information technologies animal husbandry. Application of large-scale breeding in animal husbandry. Biotechnology animal husbandry. Planning of selection and breeding work

Purpose of studying of the discipline

Theoretical foundations and practical issues of breeding certain species of animals and birds.

Learning Outcomes

ON 3 Ensure obtaining veterinary and sanitary quality of livestock and poultry products.

Prerequisites

Introduction to the specialty

Postrequisites

Animal feeding

Fundamentals of Biochemistry and BAS

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31616 (3021219)
Course	2
Term	1
Credits count	3
Lections	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

The discipline studies fundamental sciences, as well as the chemical composition and properties of substances; components of living systems and their mutual transformations in the process of metabolism. Studies the role of metabolic processes in the functioning of various organs and tissues in normal and pathological conditions.

Purpose of studying of the discipline

the study methodology for establishing the major structures of biomolecules, secondary metabolites

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

School course Basic and profile disciplines of the EP

Postrequisites

Veterinary Pharmacology

Poultry farming

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31620 (3021223)
Course	2
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 considers the formation of theoretical knowledge and practical skills necessary for the rational organization of technological processes for the production of eggs and poultry meat at poultry enterprises of industrial type of various forms of ownership. To study the issues of origin, constitution, exterior, interior and productivity of poultry of different species.

Purpose of studying of the discipline

The importance of poultry farming as a branch of the agro-industrial complex that produces high-value protein foods in a short time with minimal labor and material resources. Eggs and meat, their nutritional qualities and importance in human nutrition

Learning Outcomes

ON 3 Ensure obtaining veterinary and sanitary quality of livestock and poultry products.

Prerequisites

Introduction to the specialty

Postrequisites

Animal feeding

Private animal husbandry

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31619 (3021222)
Course	2
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

Private animal science studies the biological and economic characteristics of farm animals of different species. It includes disciplines: cattle breeding, horse breeding, sheep and goat breeding, pig breeding, poultry farming, pond fish farming, beekeeping and others. In order to fully understand animal husbandry, it is necessary to study it consistently, starting from the origins, further in the historical process of formation and up to the present time.

Purpose of studying of the discipline

The concept of the growth and development of animals. Patterns of growth and development of animals in the embryonic, fetal periods and after birth. The concept of the constitution, classification of types of constitution and their characteristics.

Learning Outcomes

ON 3 Ensure obtaining veterinary and sanitary quality of livestock and poultry products.

Prerequisites

Introduction to the specialty

Postrequisites

Animal feeding

Veterinary virology

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31635 (3021234)

Course	2
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	0hours
Laboratory works	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, nomenclature, morphology, chemical composition and properties of viruses, their stability in the external environment, the biological structure of the virus flora in the body, the development of animal pathogens, the types of diagnosis, prevention and control of infectious diseases caused by various viruses. Considers methods of cultivation and identification of viruses. It reveals the dynamics of manifestation, laboratory diagnostics and prevention of viral diseases.

Purpose of studying of the discipline

Introducing students to the world of microscopically small living organisms - microbes and viruses and studying the patterns of their life and development, as well as the changes they cause in the body of people, animals, plants and in inanimate nature.

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

Veterinary microbiology

Postrequisites

Epizootology and infectious diseases of animals

The medical examination of farm animals

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31632 (3021230)
Course	2
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

"Medical examination of animals" forming a veterinarian, as a specialist with veterinary thinking. The main goal is to provide students with theoretical and practical knowledge on the medical examination of animals, as well as a system of planned veterinary diagnostic and therapeutic and preventive measures for the timely detection of early preclinical and clinical signs of diseases, their prevention and treatment of sick animals.

Purpose of studying of the discipline

Medical examination is a system of planned diagnostic and therapeutic preventive measures aimed at timely detection of early subclinical and clinical signs of animal disease, prevention of diseases and treatment of patients.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary Latin terminology

Postrequisites

Veterinary propedeutics

Zotechnical accounting and feed analysis

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31629 (3021227)
Course	2
Term	2
Credits count	5

Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 "Zootechnical analysis of feed" studies the following disciplines that are fundamental for the study: fish farming, beekeeping, cattle breeding, sheep and cattle breeding, poultry farming, horse breeding, pig breeding. The peculiarity of the discipline is that it studies the features of the analysis of feed for feeding different types of farm animals, methods for assessing the nutritional value of feed, as well as the rules for processing special documents when compiling an analysis.

Purpose of studying of the discipline

Organizes zootechnical accounting of green and coarse feeds.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Animal husbandry

Postrequisites

General zoo hygiene

Clinical diagnosis of fur animals and birds

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31630 (3021229)
Course	2
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 is profiling and forming a veterinarian, as a specialist with veterinary thinking in the field of veterinary medicine. The discipline provides students with theoretical and practical knowledge of the clinical diagnosis of fur-bearing animals and birds, as well as some digital data on the biological characteristics, morphological and biochemical composition of the blood of fur-bearing animals and birds.

Purpose of studying of the discipline

Theoretical and practical training of students for timely and correct diagnosis, for the prevention of diseases of carnivorous animals.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary Latin terminology

Postrequisites

Veterinary propedeutics

Animal feeding

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31627 (3021225)
Course	2
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

An increase in the share of agricultural products is of great importance in the development of the country's economy. The discipline reveals the features of normalized feeding of farm animals. Teaches the rules of normalized animal feeding and the preparation of diets.

Purpose of studying of the discipline

Owns the methods of distinguishing the types of feed, evaluates the quality, determines the rationing of feeding farm animals, creates rations.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Animal husbandry

Postrequisites

General zoo hygiene

Laboratory research methods in veterinary medicine

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31626 (3021217)
Course	2
Term	2
Credits count	3
Lectons	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the basic definitions, terminology of scientific research, learn how to process scientific and technical information. a complex of operations involving tests, measurements, analyses, tests, examinations carried out in laboratories (centers) in relation to the samples (samples) under study; "biological material (biomaterial)" – samples taken from clinically healthy animals for the purpose of laboratory research (tests).

Purpose of studying of the discipline

get acquainted with the basic definitions, terminology of scientific research, learn how to process scientific and technical information.

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

Introduction to the specialty

Postrequisites

Basic and profile disciplines of the EP

Norms and optimization of the diet of animal feeding

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31628 (3021226)
Course	2
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 considers the issues of creating optimal conditions for keeping and feeding farm animals and birds that meet the physiological needs of the body, taking into account natural and climatic factors. Studies the hygiene of fur-bearing animals, commercial fish, bees and unproductive animals.

Purpose of studying of the discipline

High milk yields and at the same time a high level of profitability are ensured by following a number of rules for feeding cows: the concentration of nutrients and biologically active substances in the diet and their ratio, environmental parameters, etc.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Animal husbandry

Postrequisites

General zoo hygiene

Fundamentals of laboratory work in veterinary

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31624 (3021215)
Course	2
Term	2
Credits count	3
Lectons	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

The discipline studies methods clinical and laboratory research, therapeutic techniques. Demonstrates basic knowledge in the field of veterinary medicine. Knows basic diagnostic methods. He owns therapeutic technique. He is able conduct medical examination of animals. Occupational health and safety at work in veterinary laboratories, provides first aid in case of accidents.

Purpose of studying of the discipline

Definition and objectives of the subject, history of development. Veterinary laboratories and safety equipment when working in laboratories. Structure of veterinary laboratories. Occupational health and safety at work in veterinary laboratories, first aid in case of accidents.

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

Introduction to the specialty

Postrequisites

Basic and profile disciplines of the EP

Basics of laboratory diagnostics

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31625 (3021216)
Course	2
Term	2
Credits count	3
Lectons	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	20hours
Independent work of the student	40hours
Total	90hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the classification of laboratory vessels, their standardization. Working with dishes. Measuring devices and methods of working with them. Preparation and preparation of chemical reagents. Laboratory instruments. Laboratory animals. Examination of blood, serum, plasma, urine, feces, feed. Regulatory data.

Purpose of studying of the discipline

classification of laboratory utensils, their standardization. Working with dishes. Measuring instruments and methods of working with them.

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

Introduction to the specialty

Postrequisites

Basic and profile disciplines of the EP

Comparative physiology of agricultural animals

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31631 (3021231)
Course	2
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 method comparison studies features physiological functions contains material about processes vital activity healthy organism, their mechanisms and laws, taking into account unity and interaction with external environment, technology keeping animals. Knowledge of general and particular mechanisms and patterns activity cells, tissues, organs, organ systems and the whole organism.

Purpose of studying of the discipline

The study of the laws of life processes at different structural levels (metabolism, respiration, nutrition, etc.); identification of the mechanisms of interaction between individual systems of the body, the body and the external environment; verification of the qualitative difference in the functions of organisms of different degrees of evolutionary development and in different environmental conditions; study of the patterns of formation of various functions in the course of individual development of the body is the educational basis of Veterinary Medicine and zootechnics, knowledge of which is especially necessary for a veterinarian in effective preventive work, Diagnosis, Treatment, Organization of positive storage, effective use of animals, increasing their productivity. It is also necessary for related specialties to evaluate the quality of animal raw materials and take a special place in their processing, mastering ways and methods to improve the technology for this purpose. It involves studying the essence of the phenomena of life, determining the methods of its management and orientation.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Anatomy of domestic animals

Postrequisites

Veterinary cytology, histology, embryolog

Educational practice

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31634 (3021233)
Course	2
Term	2
Credits count	2
Study practices	60hours
Total	60hours
Knowledge control form	Total mark on practice

Short description of discipline

During the training practice, students learn the rules of work in the veterinary laboratory, skills of processing and disinfection of laboratory utensils, methods of collection, etiquette, preservation and dispatch of pathological material, get acquainted with the documents of veterinary reporting.

Purpose of studying of the discipline

The purpose of the practice is to familiarize with the basics of agricultural production, safety techniques when working with animals; mastering practical skills in the care, maintenance and feeding of animals, methods of preparation of veterinary measures, methods of preparation of chemical reagents, methods of preparation and work with general laboratory equipment.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Basic and profile disciplines of the EP

Postrequisites

Production practice

Animal Physiology

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31637 (3021280)
Course	2

Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

This discipline studies the physiology of individual systems and organs, consists of general and cellular physiology. It also provides a systematic approach to the study of the vital activity of the body: the digestive system, blood circulation, respiration, endocrine and reproductive systems, the development of immunity, the physiology and neurophysiology of animals. The discipline considers a holistic, complex and dynamic system in active interaction with the environment.

Purpose of studying of the discipline

The study of the laws of life processes at different structural levels (metabolism, respiration, nutrition, etc.); identification of the mechanisms of interaction between individual systems of the body, the body and the external environment; verification of the qualitative difference in the functions of organisms of different degrees of evolutionary development and in different environmental conditions; study of the patterns of formation of various functions in the course of individual development of the body is the educational basis of Veterinary Medicine and zootechnics, knowledge of which is especially necessary for a veterinarian in effective preventive work, Diagnosis, Treatment, Organization of positive storage, effective use of animals, increasing their productivity. It is also necessary for related specialties to evaluate the quality of animal raw materials and take a special place in their processing, mastering ways and methods to improve the technology for this purpose. It involves studying the essence of the phenomena of life, determining the methods of its management and orientation.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Anatomy of domestic animals

Postrequisites

Pathological physiology of animals

Animal Ethology

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31633 (3021232)
Course	2
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 examines study biological basis animal behavior, significance in the process ontogenesis and phylogenesis adaptation to the habitat. Behavior – external manifestations vital activity living organism. Behavior includes any type of activity shown by an individual in response to changes in the environment or necessary to meet any internal needs.

Purpose of studying of the discipline

Formation of a systematic and integral representation of a wide area of animal behavior.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

Prerequisites

Anatomy of domestic animals

Postrequisites

Veterinary cytology, histology, embryology

Veterinary Immunology

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31643 (3021240)
Course	3
Term	1

Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

Studies the issues immunity, its types. Explains the mechanisms of innate and adaptive immunity. Examines the central and peripheral organs of the immune system and their role in the formation immunity. Explains importance T-and B-lymphocytes in the formation immunity farm animals and birds. Explains structure and purpose main histocompatibility complex.

Purpose of studying of the discipline

Familiarization with the types of immunity, cellular and humoral mechanisms of its formation and practical application of the doctrine of immunity.

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

Animal Physiology

Postrequisites

Pathological anatomy of animals

Fundamentals of clinical Hematology

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31667 (3021262)
Course	4
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 hematopoietic system in a modern way, based on the basic principles of veterinary science in assessing the state of the animal organism in a physiological, clinical state. Considers the development of hematopoietic organs, research technique. Shows the definition of morphological parameters of blood in pathological changes in the body of sick, healthy animals. Considers the causes of the change, ways to restore the blood parameters of sick animals. Describes the morphology of hematopoietic cells, morphological features in domestic animals, birds.

Purpose of studying of the discipline

Understanding the mechanisms of formation of the normal composition of peripheral blood and the causes of its pathological changes. A clinical blood test is included in the standard of examination of a sick animal at all stages of veterinary care

Learning Outcomes

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

General therapy

Postrequisites

Clinical Pharmacology

Innovative research methods in veterinary medicine

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	31681 (3023871)
Course	5
Term	1
Credits count	4
Lectures	15hours
Practical and seminar classes	30hours

Independent work of a student under the guidance of a teacher	25hours
Independent work of the student	50hours
Total	120hours
Knowledge control form	Examination

Short description of discipline

The discipline contributes to the formation of a methodological and scientific practical system of knowledge, skills and abilities of the organization and conduct of scientific research in veterinary medicine. Teaches methods of planning and conducting research work (experiment) in the field of veterinary medicine, as well as the development of innovative research methods based on well-known ones, instills skills that contribute to a high degree of independence when performing scientific qualification work. Studies the scientific and information base, the ways of cognition, the choice of a topic, the methodology of innovative scientific research, the requirements for conducting research, drawing up a research plan, processing the results obtained.

Purpose of studying of the discipline

"Innovative methods of scientific research in veterinary medicine"formation of theoretical knowledge and practical skills of research activities, providing the ability to independently conduct research in accordance with the competencies being formed.

Learning Outcomes

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 10 Apply classical and innovative methods of laboratory diagnostics of diseases of animals and birds, using complex methods of diagnostics and prevention of infectious and non-contagious animal diseases.

Prerequisites

Basic and profile disciplines of the EP

Postrequisites

Final examination

Module 3. Clinical and diagnostic

Fundamentals of diagnostic and therapeutic techniques in veterinary medicine

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31636 (3021278)
Course	2
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 provides scheme clinical study agricultural and domestic animals. Symptoms and syndromes in the assessment painful condition. Chest auscultation. Vesicular respiration, bronchial physiological, bronchial pathological. Plegophonia. Studies respiratory system by graphical methods. Pneumography, rhinography, test chest puncture. Examination adnexal cavities air-carrying. Examination of the larynx, trachea, and thyroid gland.

Purpose of studying of the discipline

** mastering veterinary diagnostic methods and techniques of animal treatment.*

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary Latin terminology

Postrequisites

Veterinary propedeutics

Veterinary Pharmacology

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31641 (3021238)
Course	3
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours

Laboratory works	15hours
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

Knows the arsenal of medicinal plants used in veterinary medicine for the treatment of sick animals. He is able to apply technological methods of preparation of medicinal plant and animal raw materials for its storage and preparation of various dosage forms.

Purpose of studying of the discipline

students gain theoretical knowledge in the field of veterinary pharmacology and toxicology, as well as mastering methods for solving calculations on dosing and prescribing prescriptions for various dosage forms in order to use medicines for therapeutic and preventive purposes in various animal diseases.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Animal Physiology

Postrequisites

Veterinary toxicology

Pathological physiology of animals

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31638 (3021235)
Course	3
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 main structural and functional changes in the body of sick animals associated with the general patterns of the onset, development and outcome of the pathological process. Pathological physiology is a fundamental science that allows you to identify common causes of diseases in farm animals, analyze cause-and-effect relationships in the pathogenesis of any disease, as well as general pathological patterns in the development of the disease.

Purpose of studying of the discipline

"Pathological physiology" teaches developed functional and structural changes in the organs and tissues of systems in the body of animals suffering from various diseases. It studies the vital activity of a sick organism, functional and structural changes in it, reveals general patterns and mechanisms of development and recording of pathological processes.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Pathological physiology of animals

Postrequisites

Pathomorphology of infectious diseases

Veterinary propedeutics

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31642 (3021239)
Course	3
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

Studies modern methods of clinical laboratory research. The plan of clinical research animals. General study of the animal. Determination habitus, studies skin and its derivatives and pathological changes. Studies visible mucous membranes and their pathological changes. Studies lymph nodes. Laboratory tests of blood, urine, feces. Recognition and study pathological changes.

Purpose of studying of the discipline

these are the rules and methods of clinical research. General research methods: examination, palpation, percussion, auscultation, thermometry. Special and additional research methods. The scheme of the clinical trial. Symptoms and syndromes of the disease, diagnosis.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Fundamentals of diagnostic and therapeutic techniques in veterinary medicine

Postrequisites

General therapy

Veterinary toxicology

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31647 (3021245)
Course	3
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 theoretical and practical knowledge about the mechanism of action of toxic substances in veterinary medicine, clinical symptoms of animal poisoning, pathoanatomical changes in poisoning, preventive and therapeutic measures, indications and contraindications for the use of veterinary drugs, allows you to study the main methods of modern chemical and toxicological analysis and diagnostic methods for the study of objects of veterinary supervision.

Purpose of studying of the discipline

students gain theoretical knowledge in the field of veterinary pharmacology and toxicology, mastering methods of solving calculations on dosing and prescribing prescriptions for various dosage forms in order to use medicines for therapeutic and preventive purposes in various animal diseases, as well as the study of toxic substances, diagnosis of animal poisoning, pathogenesis, methods of treatment and prevention of poisoning.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary Pharmacology

Postrequisites

Animal feed poisoning

Pathological anatomy of animals

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31645 (3021242)
Course	3
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 morphological foundations of pathological processes in the body of animals, at the organ, tissue, cellular, subcellular, macromolecular levels, characterizing the disease, allowing an accurate diagnosis of the disease to prevent economic damage from the death of animals; pathomorphogenesis of infectious animal diseases, in particular malignant tumors, viral, metabolic diseases; the dynamics of reparative processes, taking into account the physiological status of animals.

Purpose of studying of the discipline

"Animal Pathology" teaches developed functional and structural changes in the organs and tissues of the body systems of animals suffering from various diseases. It studies the vital activity of a sick organism, functional and structural changes in it, reveals general patterns and mechanisms of development and recording of pathological processes.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Pathological physiology of animals

Postrequisites

Pathomorphology of infectious diseases

Production practice

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31648 (3021246)
Course	3
Term	2
Credits count	5
Working practice	150hours
Total	150hours
Knowledge control form	Total mark on practice

Short description of discipline

Production practice I introduces students to the rules of work in the farm, enterprise, laboratory of veterinary and sanitary examination of markets, forms practical skills of treatment, sanitary control of animal products, standards and hygienic rules of the organization, documents of veterinary reporting of laboratories.

Purpose of studying of the discipline

The purpose of the internship is to study the subject of industrial activity in accordance with the type of professional activity, gain experience in performing basic production processes, and adapt students at enterprises and organizations as qualified specialists.

Places of practice: enterprises and organizations in accordance with the objects of professional activity.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

Prerequisites

Educational practice

Postrequisites

Production practice 2

Pathomorphology of infectious diseases

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31651 (3021248)
Course	4
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 pathomorphological changes in various infectious diseases of animals for the correct and timely diagnosis, determination of the causes of death, differential diagnosis, clinical and anatomical analysis. Studies the characteristic changes of internal organs in the most important diseases of animals.

Purpose of studying of the discipline

"Pathomorphology of infectious diseases" teaches developed functional and structural changes in the organs and tissues of the body systems of animals affected by various diseases. It studies the vital activity of a sick organism, functional and structural changes in it, reveals general patterns and mechanisms of development and recording of pathological processes.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Pathological anatomy of animals

Postrequisites

Epizootology and infectious diseases of animals

Veterinary Formulation

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31655 (3021251)
Course	4
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	0hours
Laboratory works	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 technological processes of manufacturing dosage forms taking into account scientific and technical documentation (NTD). Rules for the preparation of dosage forms, their labeling and packaging. Storage, transportation and use of medicines in accordance with the procedure of scientific and technical documentation.

Purpose of studying of the discipline

students gain theoretical knowledge in the field of veterinary pharmacology, mastering methods of solving calculations for dosing and prescribing prescriptions for various dosage forms, as well as practical skills in the manufacture of various dosage forms.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary Pharmacology

Postrequisites

Clinical Pharmacology

Animal feed poisoning

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31653 (3021249)
Course	4
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

Studies causes feed poisoning, mechanism toxic action poisons, clinical symptoms, pathoanatomic changes, diagnosis, treatment and prevention animal poisoning. Regularities of the toxic effect poisons body birds, fur-bearing animals, birds and fish. Principles diagnosis and prevention poisoning. Features chemical toxicoses, phytotoxicoses and toxicoses caused by poisons animal origin. Methods treatment poisoning.

Purpose of studying of the discipline

The purpose of studying the discipline "Animal feed poisoning" is for students to gain theoretical and practical knowledge in the field of

veterinary toxicology of animal feed, to master the skills of analyzing anamnestic information, searching for rational methods when planning preventive and curative measures on this issue.

The modern development of society dictates the study of issues related to the protection of human health and the production of environmentally friendly food of animal origin.

When preparing veterinary specialists for the course "Animal feed poisoning", the following goals are set:

- to scientifically substantiate the effect of chemicals on the body of animals, taking into account the conditions of occurrence and causes of poisoning;

- based on the data of chemical and toxicological examination with the analysis of symptoms, pathological picture and anamnestic information, to make a timely and accurate diagnosis;

- it is scientifically justified to carry out preventive measures for

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary toxicology

Postrequisites

Production practice 3

Clinical Pharmacology

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31670 (3021272)
Course	5
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 issues of pharmacodynamics and pharmacokinetics modern medicines with analysis pharmacotherapeutic effect treatment sick animals. The study of the appointment of medicinal substances in the treatment animals, according the symptoms and syndromes disease. Knows the mechanism of action medicines, their classification, compatibility when combined and methods of application.

Purpose of studying of the discipline

The requirements for the development of the discipline "Clinical Pharmacology" are

- formation of in-depth professional knowledge in the field of pharmacokinetics and pharmacodynamics

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary Pharmacology

Postrequisites

Final examination

Module 4. Therapeutic and preventive

Veterinary Operative Surgery

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31640 (3021237)
Course	3
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 causes of painful processes that require surgical intervention, finds out the causes that contribute to and cause surgical diseases, studies the pathogenesis, determines the clinical signs of surgical diseases, develops therapeutic and preventive measures for surgical diseases.

Purpose of studying of the discipline

Students should study the causes of painful processes requiring surgical intervention, the causes that contribute to and cause surgical diseases are clarified, pathogenesis is studied, clinical signs of surgical diseases are determined, therapeutic and preventive measures for surgical diseases are developed.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Fundamentals of diagnostic and therapeutic techniques in veterinary medicine

Postrequisites

General Veterinary Surgery

Veterinary obstetrics

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31644 (3021241)
Course	3
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 morphology and physiology of the reproductive organs and the mammary gland of farm animals; biotechnological methods of animal reproduction; methods for controlling the reproductive ability of animals; prevention of reproductive diseases. Considers the normal and pathological state of fertilization, pregnancy, childbirth and the postpartum period of female farm animals, diseases of newborn fetuses. Develops clinical thinking, correct diagnosis, methods of treatment, prevention of gynecological diseases of animals.

Purpose of studying of the discipline

The purpose of this course is to provide students with theoretical knowledge and practical skills necessary for a general veterinarian about medical ethics and the development of clinical thinking to identify the etiology, pathogenesis, correct diagnosis, methods of treatment and prevention of gynecological diseases of animals.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Animal Physiology

Postrequisites

Veterinary gynecology

General Veterinary Surgery

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	31649 (3021244)
Course	3
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 is the theoretical basis of all surgical disciplines, studies surgical pathologies, anatomy and methods of its treatment, which are common to a group of organs or tissue systems, common to the body as a whole, a detailed study of the causes of disease processes that require surgical intervention, finds out the causes that contribute and cause surgical diseases, pathogenesis is being studied, and therapeutic and preventive measures are being developed.

Purpose of studying of the discipline

the purpose of the discipline is to study the etiology, clinic, pathogenesis, diagnosis of surgical diseases occurring in the general animal body, organs and tissues, using the achievements of many veterinary sciences (Anatomy, pathanatomy, physiology, pathophysiology, pharmacology, microbiology). Providing appropriate treatment and prevention measures. In general surgery, the principle of "treatment and Prevention of diseases are holistic, but priority is given to prevention" is observed.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

General Veterinary Surgery

Postrequisites

Veterinary Traumatology

Veterinary gynecology

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31650 (3021247)
Course	4
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Laboratory works	0hours
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 Veterinary gynecology studies the clinical branch of veterinary medicine, pathological processes in the genitals and other organs of females that occurred after the end of the postpartum period and lead to infertility. Treatment, prevention and diagnosis of sexual diseases of animals.

Purpose of studying of the discipline

Veterinary gynecology is a clinical branch of veterinary medicine that studies pathological processes in the genitals and other organs of females that have arisen after the end of the postpartum period and lead to infertility.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary obstetrics

Postrequisites

Organization of artificial insemination of animals and birds

General therapy

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31657 (3021253)
Course	4
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 subject Department of clinical veterinary medicine and the main professional discipline formation Veterinary Medicine, which teaches the mastery of research methods detecting internal diseases of animals, taking into account the achievements Veterinary, other science, technology and production, the basis which necessary treatment, prevention and other Veterinary Measures are applied.

Purpose of studying of the discipline

The purpose of studying the discipline is to master students` knowledge, skills and skills in the diagnosis, treatment and prevention of non-infectious diseases of animals, birds and fur-bearing animals.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary propedeutics

Postrequisites

Private therapy

Production practice 2

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31661 (3021264)
Course	4
Term	2
Credits count	5
Working practice	150hours
Total	150hours
Knowledge control form	Total mark on practice

Short description of discipline

During the course of industrial practice II, the skills of diagnosing internal non-infectious, infectious and invasive diseases, methods of veterinary and sanitary examination of milk and dairy products, organization of veterinary business are formed. Training of qualified workers and specialists, which takes place, as a rule, at various enterprises in real production conditions

Purpose of studying of the discipline

The purpose of the internship is to study the subject of industrial activity in accordance with the type of professional activity, gain experience in performing basic production processes, and adapt students at enterprises and organizations as qualified specialists.

Places of practice: enterprises and organizations in accordance with the objects of professional activity.

Learning Outcomes

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

Prerequisites

Production practice

Postrequisites

Production practice 3

General Veterinary Parasitology and Helminthology

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	31664 (3021259)
Course	4
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

He has specialized knowledge in the field of parasitology and arachno-entomology. It is able to provide qualified medical care to small animals and birds with helminthiasis and arachnoidosis, to organize control measures and preventive measures.

Purpose of studying of the discipline

The purpose of teaching the discipline is to protect human life from zoonothronosis by radically rehabilitating animals from parasitosis, including helminthiasis. The problems posed by Parasitology are as follows:

a) study of general theoretical questions of Parasitology in connection with the peculiarities of the locality;

B) comprehensively familiarize students with the classification, structure and development of the causative agent of diseases caused by parasitic worms, interaction with the owner of the Grove;

C) training of students in the detection and treatment of invasive diseases by modern methods;

d) master the implementation of scientifically based veterinary and sanitary measures against invasive diseases, taking into account the natural and economic characteristics of the area;

e) training of students in methods of protection of the external environment and work on combating the infection of animals with parasites.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

Prerequisites

Animal Physiology

Postrequisites

Veterinary protozoology and arachnoentomology

Private therapy

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31665 (3021260)
Course	4
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 and combines methods of treatment for specific diseases. It is a subdivision of clinical veterinary medicine and a veterinary discipline that, taking into account the achievements of veterinary and other sciences, technology and production, teaches the mastery of research methods for detecting internal diseases of animals, on the basis of which the necessary therapeutic and preventive and other veterinary measures are taken to prevent the cause of the disease.

Purpose of studying of the discipline

The purpose of studying the discipline is to master students' knowledge, skills and skills in the diagnosis, treatment and prevention of non-infectious diseases of animals, birds and fur-bearing animals.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

General therapy

Postrequisites

Clinical Pharmacology

Epizootology and infectious diseases of animals

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	31663 (3021258)
Course	4
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 of epizootology of infectious diseases of animals and birds: general patterns of development and

extinction of infectious diseases; epizootological patterns of infection and immunity, the essence of the epizootic process, the doctrine of general and special measures for the treatment of animals, the features of epizootic foci. Considers issues of diagnosis, therapy, principles of treatment and prevention measures, epizootological monitoring and veterinary and sanitary measures for infectious diseases.

Purpose of studying of the discipline

The study of a comprehensive diagnostic method, the essence of the epizootic process, means and methods of prevention and control of infectious diseases of animals.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

Prerequisites

Pathomorphology of infectious diseases

Postrequisites

Veterinary epidemiology

Veterinary Ophthalmology

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31676 (3021273)
Course	5
Term	1
Credits count	4
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	25hours
Independent work of the student	50hours
Total	120hours
Knowledge control form	Examination

Short description of discipline

The discipline considers the training of a veterinary medicine doctor, since it lays down clinical thinking, i.e. the skills to correctly analyze anamnestic data, summarize clinical facts, the results of clinical and laboratory studies, on this basis to make an objective diagnosis, develop effective treatment and prevention of animal diseases.

Purpose of studying of the discipline

Eye diseases in animals are very common. They can occur as a result of the direct action of various mechanical, chemical and physical injuries or develop in some infectious, parasitic and non-infectious diseases.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

General Veterinary Surgery

Postrequisites

Final examination

Veterinary protozoology and arachnoentomology

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	31671 (3021265)
Course	5
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

Studies the systematics, morphology, biology of protozoa, insects and mites, methods for determining the parasitological situation in farms by protozoans, arachnoses and entomoses, the basics of parasitic and parasitic economic relations, the principles of diagnosis,

treatment and prevention of protozoans and arachnoentomoses.

Purpose of studying of the discipline

training of theoretical and practical questions of Veterinary arachnoentomology and protozoology based on the peculiarities of the terrain;

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

Prerequisites

General Veterinary Parasitology and Helminthology

Postrequisites

Final examination

Veterinary Traumatology

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31678 (3021275)
Course	5
Term	1
Credits count	4
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	25hours
Independent work of the student	50hours
Total	120hours
Knowledge control form	Examination

Short description of discipline

The discipline considers supplements the material to the already completed disciplines, such as " General and private surgery"," Operative surgery with topographic anatomy", in which the etiology and pathogenesis of surgical diseases of animals are studied, including means and methods of preventing or reducing animal injuries.

Purpose of studying of the discipline

Students gain in-depth knowledge on the diagnosis of injuries

of various etiologies, taking into account the features that contribute to the occurrence of injuries of industrial, natural and other factors: the development of methods for the treatment and prevention of injuries of farm animals.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

General Veterinary Surgery

Postrequisites

Final examination

Veterinary epidemiology

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31675 (3021270)
Course	5
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 history of the disease and its spread, etiology, economic damage, pathogenesis, epizootic process and epizootic features of immunity and diagnosis, measures for the prevention and control of infectious diseases of various species of animals and birds.

Purpose of studying of the discipline

The study of means and methods of prevention and control of infectious diseases common to different species of animals and humans.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

Prerequisites

Epizootology and infectious diseases of animals

Postrequisites

Final examination

Zoonoses

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	31672 (3021266)
Course	5
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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

Possess a comprehensive method of diagnosing animal diseases. Analyze the results of professional diagnostics of infectious and non-infectious animal diseases. Predict the epidemiological and epizootological situation. Develop economically sound veterinary and sanitary measures.

Purpose of studying of the discipline

The purpose of studying the discipline: the study of means and methods of prevention and control of infectious diseases common to different species of animals and humans

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

Prerequisites

Epizootology and infectious diseases of animals

Postrequisites

Final examination

Invasive diseases of fish and bees

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31682 (3021269)
Course	5
Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 provides the veterinary medicine doctor with necessary knowledge on morphology biology pathogens infectious and invasive diseases, pathogenesis, diagnosis, therapy and prevention of infectious and non-infectious diseases of fish and bees, to promote the formation of a highly qualified specialist in the field veterinary medicine, fish farming and beekeeping.

Purpose of studying of the discipline

Formation of knowledge on the basics of general pathology, parasitology and epizootology, which are necessary for understanding the processes occurring in a sick body, the general patterns of parasitism and epizootic process.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

Prerequisites

General Veterinary Parasitology and Helminthology

Postrequisites

Final examination

Organization of artificial insemination of animals and birds

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31673 (3021267)
Course	5
Term	1
Credits count	5
Lections	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 helps students master basics of artificial insemination farm animals birds. The basics artificial insemination students begin with study physiological anatomical features sexual apparatus females and males. After studying the sexual reflexes, they acquainted with methods obtaining an ejaculate, preparing an artificial vagina, evaluating, diluting and storing semen; artificial insemination cows, sheep, mares, sows.

Purpose of studying of the discipline

Creating optimal conditions for feeding, keeping animals and birds, checking productivity and conducting their comprehensive assessment. Selection and evaluation of high-quality producers and queens.

Learning Outcomes

ON2 Use professional skills in practice in therapeutic, diagnostic, surgical activities.

ON 4 Apply biological knowledge in the development of special disciplines, for the implementation of therapeutic and preventive and sanitary measures.

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

Prerequisites

Veterinary gynecology

Postrequisites

Final examination

Production practice 3

Discipline cycle	Profiling discipline
Discipline component	University component
SubjectID	31680 (3021277)
Course	5
Term	1
Credits count	5
Study practices	150hours
Total	150hours
Knowledge control form	Total mark on practice

Short description of discipline

Industrial practice III forms the professional competencies of veterinary specialists: the ability to diagnose animal diseases various etiologies, develop veterinary and sanitary measures, conduct sanitary hygienic assessment of products of plant and animal origin. Training qualified workers and specialists, which takes place, a rule, at various enterprises in real production conditions

Purpose of studying of the discipline

The purpose of the internship is to study the subject of industrial activity in accordance with the type of professional activity, gain experience in performing basic production processes, and adapt students at enterprises and organizations as qualified specialists. Places of practice: enterprises and organizations in accordance with the objects of professional activity.

Learning Outcomes

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Production practice 2

Postrequisites

Final examination

Pre-graduate practice

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31683 (3021283)
Course	5
Term	2
Credits count	10
Undergraduate practice	300hours
Total	300hours
Knowledge control form	Total mark on practice

Short description of discipline

Undergraduate practice contributes to the formation of skills of scientific search and processing of information on the topic of the thesis, the formulation of scientific experiment and statistical processing of the data, analysis and presentation of the results of scientific research in the form of qualifying work.

Purpose of studying of the discipline

To confirm the research search, the bachelor must confirm the experiments and results by writing a thesis (project)

Learning Outcomes

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

Prerequisites

Production practice IV

Postrequisites

Final examination

Production practice IV

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31684 (3021290)
Course	5
Term	2
Credits count	10
Working practice	300hours
Total	300hours
Knowledge control form	Total mark on practice

Short description of discipline

The fourth industrial practice is conducted by students in veterinary institutions under the guidance of teachers of specialized departments, the basis of the practice is organizations (veterinary service, laboratories, enterprises, farms), libraries (when performing theoretical theses). Mastering of specialties directly in production, market structures, meat processing enterprises, laboratories of veterinary and sanitary examination of the market, border control points, scientific organizations and laboratories, structures of the security and quarantine service, enterprises of the biotechnological industry.

Purpose of studying of the discipline

Possesses the ability and willingness to prescribe therapeutic and surgical treatment to patients in accordance with the diagnosis.

Learning Outcomes

ON 5 Make a decision when prescribing treatment for diseases with various clinical symptoms and syndromes.

ON6 Conduct epizootological monitoring for infectious and invasive diseases.

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Production practice 3

Postrequisites

Final examination

Module 5. Veterinary and sanitary safety

General zoo hygiene

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31639 (3021236)
Course	3

Term	1
Credits count	5
Lectures	15hours
Practical and seminar classes	0hours
Laboratory works	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 hygienic standards and requirements aimed at protecting the health of animals and increasing their productivity. Masters methods of hygienic control of air parameters, sanitary and hygienic control of soil parameters, water and water supply, feed and animal feeding.

Purpose of studying of the discipline

To study the influence of environmental factors and their relationship with the animal body in order to create optimal use conditions for keeping animals in accordance with the physiological needs of animals, with the use of a small amount of Labor spent on feeding and raising animals, which allows you to obtain high-quality products.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Animal husbandry

Postrequisites

Private zoo hygiene

Private zoo hygiene

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31646 (3021243)
Course	3
Term	2
Credits count	5
Lectures	15hours
Practical and seminar classes	30hours
Laboratory works	0hours
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 issues of creating optimal conditions for feeding and keeping farm birds and animals, which determine the physiological needs of the body, taking into account natural and climatic factors. They consider issues of hygiene of farm animals, fur-bearing animals, marketable fish, bees and non-productive animals. Develops skills in veterinary and sanitary assessment of livestock buildings. Training of future veterinary specialists depending on the physiological characteristics of animals, creating normal conditions.

Purpose of studying of the discipline

Preparation of future veterinary specialists - depending on the physiological characteristics of animals, in order to obtain a rich harvest from them, to create normal conditions in a certain direction and meet the country's demand for animal products.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

General zoo hygiene

Postrequisites

Optimization of conditions for keeping productive animals and birds

Veterinary-sanitary examination

Discipline cycle	Basic disciplines
Discipline component	University component
SubjectID	31652 (3021255)
Course	4
Term	1
Credits count	5
Lectures	15hours

Practical and seminar classes	15hours
Laboratory works	15hours
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

He is able to conduct veterinary and sanitary studies environmental objects, premises and equipment; to control the quality meat and dairy products, raw materials animal origin and veterinary and sanitary measures carried out. Demonstrates knowledge the expertise of all livestock products obtained from both healthy and part of sick animals.

Purpose of studying of the discipline

The discipline "veterinary and sanitary expertise" teaches students in theoretical knowledge and practical work, in order to fulfill the tasks set before veterinary sanitary expertise, to conduct veterinary sanitary assessment, production technology, standardization and certification of animal products and raw materials.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Veterinary microbiology

Postrequisites

Veterinary and sanitary examination of animal raw materials

Veterinary and sanitary examination of poultry products

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31656 (3021252)
Course	4
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 direction formation of professional competencies. The ability identify the necessary improvements and develop new, more effective means for quality control of raw materials and products of animal and plant origin. Know regulatory and technical documentation on veterinary and sanitary examination of products at poultry farms and markets.

Purpose of studying of the discipline

in theoretical knowledge and practical work, students are taught to carry out veterinary and sanitary assessment of the degree of safety and quality of poultry, fish, bee and crop products in order to fulfill the tasks set for veterinary sanitary expertise

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Veterinary-sanitary examination

Postrequisites

Forensic veterinary sanitary examination

Optimization of conditions for keeping productive animals and birds

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31658 (3021254)
Course	4
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Laboratory works	0hours
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 considers the issues of creating optimal conditions for keeping and feeding farm animals and birds that meet the physiological needs of the body, taking into account natural and climatic factors. Studies the hygiene of fur-bearing animals, commercial fish, bees and unproductive animals.

Purpose of studying of the discipline

To study modern methods of creating optimal conditions for the maintenance and exploitation of animals and birds, which contribute to increasing the body's natural resistance to diseases and maximum productivity.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Private zoo hygiene

Postrequisites

Sanitary and hygienic norms of livestock facilities

Sanitary and hygienic norms of livestock facilities

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31654 (3021250)
Course	4
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Laboratory works	0hours
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 study sanitary and hygienic standards livestock facilities providing progressive technology animal husbandry, providing the highest productivity, low operating costs a high level labor productivity. Norms technological design veterinary facilities livestock enterprises. Norms of technological design of silage and haylage storages. Norms of technological design of manure storage facilities.

Purpose of studying of the discipline

training of sanitary and hygienic standards at livestock facilities, taking into account advanced technologies for ensuring productivity, low operational costs and high production labor.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Veterinary-sanitary examination

Postrequisites

Technology, hygiene, sanitation and veterinary and sanitary examination of meat and dairy products

Veterinary Radiobiology

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31662 (3021288)
Course	4
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	30hours
Laboratory works	0hours
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

This discipline introduces students to the concepts of radiometry and dosimetry. On the biological effect of ionizing radiation. Sources of ionizing radiation, migration of radionuclides along feed chains. Radiation damage and radiation sickness of animals diagnosis and

treatment. Studies the technological process of primary processing of animals exposed to external radiation, the organization of work with radioactive substances and the basics of radiation safety.

Purpose of studying of the discipline

The purpose of the "Veterinary Radiobiology" subject is to provide students with theoretical knowledge and practical skills in monitoring radioactive contamination of external environmental objects and animal products and raw materials.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Basic and profile disciplines of the EP

Postrequisites

Final examination

State Veterinary Service

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31659 (3021256)
Course	4
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 quality control in accordance with normative technical documentation. The discipline studies the system of organizations, institutions of a veterinary profile, at enterprises, transport, carrying out a complex of anti-epizootic measures. Knows the regulations in the area. Types of quality control of raw materials of animal origin. Demonstrates basic knowledge of veterinary reporting, able to make decisions in the monitoring, production and implementation of veterinary documents.

Purpose of studying of the discipline

a brief history of the development of the veterinary service in Kazakhstan. The structure of the Veterinary Service of the Republic of Kazakhstan. To determine the cost-effectiveness of preventive or curative measures of the selected disease.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Introduction to the specialty

Postrequisites

Forensic veterinary sanitary examination

Organization of veterinary affairs

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31660 (3021257)
Course	4
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 legislation of the Republic of Kazakhstan, the basics and organizational structure of veterinary business, the organization of veterinary business in the city and in rural areas, the basics of veterinary business, the economics of veterinary events, the planning and organization of veterinary events, the organization of veterinary supervision, issues of veterinary accounting, reporting and office work. Considers the organization of the veterinary service in districts, cities and farms.

Purpose of studying of the discipline

State departmental veterinary service, private veterinary service.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Introduction to the specialty

Postrequisites

Forensic veterinary sanitary examination

VSE of crop production, fish farming and beekeeping products

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31668 (3021263)
Course	4
Term	2
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 sanitary examination of food products of plant origin. Teaches methods for assessing the quality of herbal products based on ongoing research. Introduces the classification of pond and lake-commodity fish farms, beekeeping products in apiaries. Considers methods for determining nutritional and biological value. Explains the general requirements for sampling for examination, the algorithm for conducting organoleptic, laboratory studies of fish and bee products for good quality.

Purpose of studying of the discipline

in theoretical knowledge and practical work, students are taught to carry out veterinary and sanitary assessment of the degree of safety and quality of poultry, fish, bee and crop products in order to fulfill the tasks set before veterinary sanitary expertise.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Veterinary-sanitary examination

Postrequisites

Veterinary and sanitary examination of animal raw materials

Hygiene of young farm animals and birds

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31666 (3021261)
Course	4
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 influence of climate, feed, soil, water, feeding, maintenance, exploitation, rearing and care on the body of birds and animals. Prepares recommendations that contribute to high productivity, rational intake of feeding, maintenance, care and rearing, ensuring high productivity of birds and animals. Teaches the elimination and weakening of adverse influences that violate the health and hygiene of young animals.

Purpose of studying of the discipline

Preparation of future livestock specialists to meet the needs of the country's livestock products, creating normal conditions in a certain direction, in order to obtain a rich harvest due to the physiological and large-scale characteristics of animals.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Sanitary and hygienic norms of livestock facilities

Postrequisites

Forensic veterinary sanitary examination

Discipline cycle	Basic disciplines
Discipline component	Electives
SubjectID	31669 (3021271)
Course	5
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 procedural foundations general provisions and articles laws forensic examination. Forensic veterinary examination of animal corpses. Examination of cases illness and death animals due violation zoohygienic conditions; poisoning; diseases caused physical influences; disputes connection with the purchase sale animals; infectious diseases. Forensic veterinary examination based on the case materials.

Purpose of studying of the discipline

The discipline studies the procedural foundations of the general provisions and articles of the laws on forensic examination.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Veterinary-sanitary examination

Postrequisites

Final examination

Veterinary and sanitary examination of animal raw materials

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31674 (3021268)
Course	5
Term	1
Credits count	5
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
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 veterinary and sanitary requirements collection blood, intestines, endocrine enzyme raw materials, types leather raw materials, production of animal feed. Classification commodity characteristics intestines of individual animal species. VSE of endocrine-enzyme materials requirements of primary processing. The main types of leather raw materials. Technical disposal confiscated items. Production of animal feed.

Purpose of studying of the discipline

students are trained in theoretical knowledge and practical work to carry out veterinary sanitary assessment, production technology, standardization and certification of animal products and raw materials in order to fulfill the tasks set for veterinary sanitary examination.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Veterinary-sanitary examination

Postrequisites

Final examination

Veterinary and sanitary control at the border and transport

Discipline cycle	Profiling discipline
Discipline component	Electives

SubjectID	31677 (3021274)
Course	5
Term	1
Credits count	4
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	25hours
Independent work of the student	50hours
Total	120hours
Knowledge control form	Examination

Short description of discipline

The discipline examines the issues of veterinary and sanitary control over the movement of any goods both within the country or in transit, and during import or export. The issues under consideration are aimed at preventing the importation of infectious, parasitic, and anthrozoonous diseases into the country.

Purpose of studying of the discipline

Theoretical knowledge and practical skills of students on the procedure and rules of transportation of objects (objects) and goods subject to veterinary and sanitary supervision and control across the state customs borders of the Republic of Kazakhstan.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

Zoonoses

Postrequisites

Final examination

Technology, hygiene, sanitation and veterinary and sanitary examination of meat and dairy products

Discipline cycle	Profiling discipline
Discipline component	Electives
SubjectID	31679 (3021276)
Course	5
Term	1
Credits count	4
Lectons	15hours
Practical and seminar classes	15hours
Laboratory works	15hours
Independent work of a student under the guidance of a teacher	25hours
Independent work of the student	50hours
Total	120hours
Knowledge control form	Examination

Short description of discipline

The discipline studies the technology, hygiene, sanitation of the production of meat and meat products, as well as the features of the technology of milk and dairy products. Students acquire knowledge about the standardization of meat products, the technology of washing and disinfection of inventory, vehicles, containers and equipment, as well as correctly choose disinfectants, deratizing and other means for carrying out sanitary measures.

Purpose of studying of the discipline

Technology of production of meat and dairy products, various technologies of processing raw materials and production of high-quality products and veterinary and sanitary supervision of the quality of animal products and raw materials.

Learning Outcomes

ON 7 Conduct veterinary and sanitary examination and ensure the food safety of livestock and crop products.

ON 8 To carry out veterinary and sanitary supervision of objects controlled by the veterinary and sanitary service.

ON 9 To organize the protection of the population from diseases common to animals and humans.

Prerequisites

VSE of crop production, fish farming and beekeeping products

Postrequisites

Final examination

Final examination

Writing and defending a thesis or preparing and passing a comprehensive exam.

Writing and defending a thesis

Credits count	8
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Comprehensive exam

Credits count	8
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4. Summary table on the scope of the educational program

«6B09103 - Veterinary»

Name of discipline	Cycle/ Component	Term	Number of credits	Total hours	Lec	SPL	LC	IWST	IWS	Knowledge control form
Module 1. Fundamentals of social and humanitarian knowledge										
Foreign language	GER/CC	1	5	150		45		35	70	Examination
History of Kazakhstan	GER/CC	1	5	150	30	15		35	70	Qualification examination
Kazakh language	GER/CC	1	5	150		45		35	70	Examination
Bases of economics, law and ecological knowledge	GER/US	1	5	150	15	30		35	70	Examination
Russian language	GER/CC	1	5	150		45		35	70	Examination
Physical Culture	GER/CC	1	2	60		60				Differentiated attestation
Kazakh language	GER/CC	2	5	150		45		35	70	Examination
Foreign language	GER/CC	2	5	150		45		35	70	Examination
The module of socio-political knowledge (sociology, political science, cultural studies, psychology)	GER/CC	2	8	240	30	45		55	110	Examination
Russian language	GER/CC	2	5	150		45		35	70	Examination
Physical Culture	GER/CC	2	2	60		60				Differentiated attestation
Information and communication technology	GER/CC	3	5	150	15	15	15	35	70	Examination
Physical Culture	GER/CC	3	2	60		60				Differentiated attestation
World of Abai	BS/US	3	3	90	15	15		20	40	Examination
Physical Culture	GER/CC	4	2	60		60				Differentiated attestation
Philosophy	GER/CC	5	5	150	15	30		35	70	Examination
Module 2. Professional and communicative										
Anatomy of domestic animals	BS/US	1	5	150	15	0	30	35	70	Examination
Veterinary Latin terminology	BS/US	1	5	150	15	15	15	35	70	Examination
Introduction to the specialty	BS/US	2	3	90	15	15		20	40	Examination
Topographic anatomy	BS/US	2	5	150	15	0	30	35	70	Examination
Bioorganic chemistry	BS/CCh	3	3	90	15		15	20	40	Examination
Animal Biochemistry	BS/CCh	3	3	90	15		15	20	40	Examination
Veterinary genetics	BS/US	3	5	150	15	30	0	35	70	Examination
Veterinary microbiology	BS/US	3	5	150	15	15	15	35	70	Examination
Veterinary cytology, histology, embryolog	BS/US	3	5	150	15	15	15	35	70	Examination

Animal husbandry	BS/CCh	3	5	150	15	30		35	70	Examination
Fundamentals of Biochemistry and BAS	BS/CCh	3	3	90	15		15	20	40	Examination
Poultry farming	BS/CCh	3	5	150	15	30		35	70	Examination
Private animal husbandry	BS/CCh	3	5	150	15	30		35	70	Examination
Veterinary virology	BS/US	4	5	150	15	0	30	35	70	Examination
The medical examination of farm animals	BS/CCh	4	5	150	15	15	15	35	70	Examination
Zootechnical accounting and feed analysis	BS/CCh	4	5	150	15	15	15	35	70	Examination
Clinical diagnosis of fur animals and birds	BS/CCh	4	5	150	15	15	15	35	70	Examination
Animal feeding	BS/CCh	4	5	150	15	15	15	35	70	Examination
Laboratory research methods in veterinary medicine	BS/CCh	4	3	90	15		15	20	40	Examination
Norms and optimization of the diet of animal feeding	BS/CCh	4	5	150	15	15	15	35	70	Examination
Fundamentals of laboratory work in veterinary	BS/CCh	4	3	90	15		15	20	40	Examination
Basics of laboratory diagnostics	BS/CCh	4	3	90	15		15	20	40	Examination
Comparative physiology of agricultural animals	BS/CCh	4	5	150	15	15	15	35	70	Examination
Educational practice	BS/US	4	2	60						Total mark on practice
Animal Physiology	BS/CCh	4	5	150	15	15	15	35	70	Examination
Animal Ethology	BS/CCh	4	5	150	15	15	15	35	70	Examination
Veterinary Immunology	AS/CCh	5	5	150	15	15	15	35	70	Examination
Fundamentals of clinical Hematology	AS/CCh	8	5	150	15	15	15	35	70	Examination
Innovative research methods in veterinary medicine	AS/US	9	4	120	15	30		25	50	Examination
Module 3. Clinical and diagnostic										
Fundamentals of diagnostic and therapeutic techniques in veterinary medicine	BS/CCh	4	5	150	15	15	15	35	70	Examination
Veterinary Pharmacology	BS/US	5	5	150	15	15	15	35	70	Examination
Pathological physiology of animals	BS/US	5	5	150	15	15	15	35	70	Examination
Veterinary propedeutics	AS/CCh	5	5	150	15	30		35	70	Examination
Veterinary toxicology	BS/US	6	5	150	15	15	15	35	70	Examination
Pathological anatomy of animals	BS/US	6	5	150	15	15	15	35	70	Examination
Production practice	BS/US	6	5	150						Total mark on practice
Pathomorphology of infectious diseases	BS/US	7	5	150	15	15	15	35	70	Examination
Veterinary Formulation	AS/CCh	7	5	150	15	0	30	35	70	Examination
Animal feed poisoning	AS/CCh	7	5	150	15	15	15	35	70	Examination
Clinical Pharmacology	BS/CCh	9	5	150	15	15	15	35	70	Examination
Module 4. Therapeutic and preventive										

Veterinary Operative Surgery	BS/US	5	5	150	15	15	15	35	70	Examination
Veterinary obstetrics	BS/US	6	5	150	15	15	15	35	70	Examination
General Veterinary Surgery	AS/US	6	5	150	15	15	15	35	70	Examination
Veterinary gynecology	BS/US	7	5	150	15	30	0	35	70	Examination
General therapy	AS/CCh	7	5	150	15	15	15	35	70	Examination
Production practice 2	BS/US	8	5	150						Total mark on practice
General Veterinary Parasitology and Helminthology	AS/US	8	5	150	15	15	15	35	70	Examination
Private therapy	AS/CCh	8	5	150	15	15	15	35	70	Examination
Epizootology and infectious diseases of animals	AS/US	8	5	150	15	15	15	35	70	Examination
Veterinary Ophthalmology	AS/CCh	9	4	120	15	15	15	25	50	Examination
Veterinary protozoology and arachnoentomology	AS/US	9	5	150	15	15	15	35	70	Examination
Veterinary Traumatology	AS/CCh	9	4	120	15	15	15	25	50	Examination
Veterinary epidemiology	AS/CCh	9	5	150	15	15	15	35	70	Examination
Zoonoses	AS/US	9	5	150	15	15	15	35	70	Examination
Invasive diseases of fish and bees	AS/CCh	9	5	150	15	15	15	35	70	Examination
Organization of artificial insemination of animals and birds	AS/CCh	9	5	150	15	15	15	35	70	Examination
Production practice 3	AS/US	9	5	150						Total mark on practice
Pre-graduate practice	AS/CCh	10	10	300						Total mark on practice
Production practice IV	AS/CCh	10	10	300						Total mark on practice
Module 5. Veterinary and sanitary safety										
General zoo hygiene	BS/US	5	5	150	15	0	30	35	70	Examination
Private zoo hygiene	BS/US	6	5	150	15	30	0	35	70	Examination
Veterinary-sanitary examination	BS/US	7	5	150	15	15	15	35	70	Examination
Veterinary and sanitary examination of poultry products	AS/CCh	7	5	150	15	15	15	35	70	Examination
Optimization of conditions for keeping productive animals and birds	AS/CCh	7	5	150	15	30	0	35	70	Examination
Sanitary and hygienic norms of livestock facilities	AS/CCh	7	5	150	15	30	0	35	70	Examination
Veterinary Radiobiology	BS/CCh	8	5	150	15	30	0	35	70	Examination
State Veterinary Service	BS/CCh	8	5	150	15	30		35	70	Examination
Organization of veterinary affairs	BS/CCh	8	5	150	15	30		35	70	Examination
VSE of crop production, fish farming and beekeeping products	AS/CCh	8	5	150	15	15	15	35	70	Examination
Hygiene of young farm animals and birds	AS/CCh	8	5	150	15	30		35	70	Examination
Forensic veterinary sanitary examination	BS/CCh	9	5	150	15	15	15	35	70	Examination
Veterinary and sanitary examination of animal raw materials	AS/CCh	9	5	150	15	15	15	35	70	Examination
Veterinary and sanitary control at the border and transport	AS/CCh	9	4	120	15	15	15	25	50	Examination

Technology, hygiene, sanitation and veterinary and sanitary examination of meat and dairy products	AS/CCh	9	4	120	15	15	15	25	50	Examination
Final examination										
Writing and defending a thesis		9	8	240						
Comprehensive exam		10	8	240						