

The list of academic disciplines of the university component

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)

set of 2023

Developed

By the Academic Committee of the OP
Head of AK Yessengulova N.
Manager of OP Zhexenayeva A.

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.

Bases of economics, law and ecological knowledge

Discipline cycle	General educational disciplines
Course	1
Credits count	5
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.

Learning outcomes by discipline

- ☒ analyzes the issues of safety and conservation of the natural environment as the most important priorities of life;*
- ☒ demonstrates knowledge of the fundamentals of nature management and sustainable development, assesses the impact of man-made systems on the environment;*
- ☒ shows knowledge of the main regulatory legal acts of the Republic of Kazakhstan, their understanding and application;*
- ☒ shows knowledge of the patterns of development of economic processes, clearly formulates his own position, finds and clearly sets out arguments in its defense;*
- ☒ is able to characterize the types of entrepreneurial activity and the entrepreneurial environment, draw up a business plan, create an entrepreneurial structure and organize its activities;*
- ☒ knows the fundamental provisions about the role of leadership in managing large and small social groups.*

Prerequisites

School course

Postrequisites

Basic and profile disciplines of the EP

Anatomy of domestic animals

Discipline cycle	Basic disciplines
Course	1
Credits count	5
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 philo- 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.

Learning outcomes by discipline

- 1) Describe the macroscopic structure of organs and systems, as well as the species and age characteristics of the animal organism, the division of the animal body into departments and regions, the determination of the location of organs*
- 2) Determine the location of individual organs and areas of the animal's body*
- 3) Apply the method of preparation of anatomical preparations and methods of handling and working with animals.*

Prerequisites

School course

Postrequisites

Topographic anatomy

Veterinary Latin terminology

Discipline cycle	Basic disciplines
Course	1
Credits count	5
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.

Learning outcomes by discipline

1) In the process of mastering the Latin language, consider the subject from the point of view of its originality in accordance with science, in the linguistic sense, understand the stylistic essence of the sentence and understand it as an international concept.

2) Mastering the ethics and deontological principles of the profession, since discipline is an important discipline in the formation of the profession of a veterinarian.

3) In the process of studying Latin grammar, fully master anatomical, pharmacological and clinical terminological word formation, increase the ability to further prescribe medical recommendations (prescriptions), diagnose sick animals and use Latin terms in the field of veterinary medicine, become an educated specialist in the field of veterinary science.

Prerequisites

School course

Postrequisites

Basic and profile disciplines of the EP

Introduction to the specialty

Discipline cycle	Basic disciplines
Course	1
Credits count	3
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.

Learning outcomes by discipline

1. Introduces students to the achievements of veterinary medicine in the prevention and elimination of infectious diseases common to humans and animals.

2. Studies scientific teaching on the prevention and treatment of animal diseases.

3. Protects humanity from anthroozoonosis as a result of the production of animal products through veterinary examination and examination, solving veterinary and sanitary problems in environmental protection.

Prerequisites

Veterinary Latin terminology

Postrequisites

Animal husbandry

Topographic anatomy

Discipline cycle	Basic disciplines
Course	1
Credits count	5
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.

Learning outcomes by discipline

1) Describe the macroscopic structure of organs and systems, as well as the species and age characteristics of the animal organism, the division of the animal body into departments and regions, the determination of the location of organs

2) Describe the location of individual organs and areas of the animal's body, organs of the thoracic, abdominal and pelvic cavities, determine the boundaries and divisions of departments into areas, which gives an accurate definition of the topography of organs

3) Apply methods of preparation of anatomical preparations, learn to determine the contours and topography of organs

Prerequisites

Anatomy of domestic animals

Postrequisites

Animal Physiology

Veterinary genetics

Discipline cycle	Basic disciplines
Course	2
Credits count	5
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.

Learning outcomes by discipline

- 1) To study the material foundations of heredity and variability, signs of the regularity of heredity, the basics of genetic analysis, distinguish chromosome theory*
- 2) To determine the types and causes of the variability of organisms, the current state of the problems of genetics, to determine the possibilities of managing the condition, heredity and variability of organisms*
- 3) Explain experiments on the study of heredity and variability, interpretation of the results obtained*

Prerequisites

Veterinary Latin terminology

Postrequisites

Animal Physiology

Veterinary microbiology

Discipline cycle	Basic disciplines
Course	2
Credits count	5
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.

Learning outcomes by discipline

- 1) Apply classical and genotypic methods of laboratory diagnostics of infectious diseases of animals.*
- 2) To search for promising ways to improve technologies for the production of diagnostics using the achievements of molecular biology, immunology, genetic and cellular engineering.*
- 3) Solve production issues related to the diagnosis and prevention of infectious diseases caused by bacteria, fungi, rickettsias, chlamydia, etc.*

Prerequisites

Animal Biochemistry

Postrequisites

Veterinary virology

Veterinary cytology, histology, embryolog

Discipline cycle	Basic disciplines
Course	2
Credits count	5
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.

Learning outcomes by discipline

- 1) To determine the submicroscopic structure, vital activity of cells and non-cellular forms of living matter that are part of the tissues, organs and systems of the animal organism
- 2) To determine the patterns of occurrence, development, microscopic and submicroscopic structure of the animal organism in species, breed, age characteristics, their differences and relationships with the environment
- 3) Explain the mechanisms of changing the normal structure of cells, tissues, organs in pathological conditions

Prerequisites

Veterinary Latin terminology

Postrequisites

Veterinary virology

World of Abai

Discipline cycle	Basic disciplines
Course	2
Credits count	3
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 Kudaiberdiuly, 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.

Learning outcomes by discipline

- 1) Analyzes the philosophical and artistic foundations of works, historical facts related to the creative heritage of Abai Kunanbayev, Shakarim Kudaiberdiyev, Mukhtar Auezov
- 2) Uses in practice the humanistic ideas of Abai's philosophical and artistic works
- 3) Assesses the place and significance of Abai's works in the history of literature and science

Prerequisites

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

Postrequisites

Basic and profile disciplines of the EP

Veterinary virology

Discipline cycle	Basic disciplines
Course	2
Credits count	5
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.

Learning outcomes by discipline

- 1) Detect and identify viruses in pathological material
- 2) To carry out monitoring studies, assessment of the state of the environment
- 3) Solve production issues related to the diagnosis and prevention of infectious diseases caused by viruses.

Prerequisites

Veterinary microbiology

Postrequisites

Epizootology and infectious diseases of animals

Educational practice

Discipline cycle	Basic disciplines
Course	2

Credits count	2
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.

Learning outcomes by discipline

Able to diagnose provide primary medical care to animals and birds

Prerequisites

Basic and profile disciplines of the EP

Postrequisites

Production practice

Veterinary Operative Surgery

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

- 1) Know when performing an operation, it is necessary to avoid painful sensations, protect against surgical infection, tissue separation techniques, blood stopping techniques, suture –dressing techniques, techniques of various operations on body parts.*
- 2)Organize the preparation of animals for the operation and the conduct of operations*
- 3) Perform the technique of operations on various areas of the body.*

Prerequisites

Fundamentals of diagnostic and therapeutic techniques in veterinary medicine

Postrequisites

General Veterinary Surgery

Veterinary Pharmacology

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

- 1) Know all the dosage forms and their constituent bases, be able to prescribe them in the form of a prescription;*
- 2) Possess the skills and techniques of using this knowledge for theoretical and practical purposes*
- 3)• have sufficient skills to use knowledge for the use of medicines used for therapeutic and preventive purposes*

Prerequisites

Animal Physiology

Postrequisites

Veterinary toxicology

General zoo hygiene

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

1) Carries out professional activities taking into account the influence of natural (air, water, soil) factors on the body of animals

2) To predict the impact of socio-economic, genetic and economic factors on the animal organism.

3) To justify the use of the instrument base in solving professional tasks

Prerequisites

Animal husbandry

Postrequisites

Private zoo hygiene

Pathological physiology of animals

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

1) Describes the causes and mechanisms of typical pathological processes and reactions, their manifestation and significance for the body in the development of various diseases

2) describes the etiology, pathogenesis and features of the most common animal diseases ;

3) Defines the basic concepts of general nosology

Prerequisites

Pathological physiology of animals

Postrequisites

Pathomorphology of infectious diseases

Veterinary toxicology

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

1) Classify the mechanisms of toxic action of toxic elements

2) Possess the skills and techniques of using this knowledge for theoretical and practical purposes

3) Use the acquired knowledge to build models of real methods and methods of pharmacotherapy, antidote therapy and chemical-toxicological analysis

Prerequisites

Veterinary Pharmacology

Postrequisites

Animal feed poisoning

Veterinary obstetrics

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

1) Understanding the physiology of birth, mastering the basics of obstetric care at birth.

2) Organization of treatment for diseases of the postpartum period and newborn offspring

3) Determination and treatment of udder diseases

Prerequisites

Animal Physiology

Postrequisites

Veterinary gynecology

Pathological anatomy of animals

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

- 1) analyze the problems of general pathology and adequately evaluate modern theoretical concepts and directions in the field of veterinary medicine
- 2) Describes the causes and mechanism of reactions with typical pathological processes, their essence with manifestations for the body in various diseases
- 3) plans and conducts experiments on animals, process and analyze the results of experiments, conduct research on clinical forms of pathology, apply the knowledge gained when meeting on the farm

Prerequisites

Pathological physiology of animals

Postrequisites

Pathomorphology of infectious diseases

Production practice

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

Able to diagnose provide primary medical care to animals and birds

Prerequisites

Educational practice

Postrequisites

Production practice 2

Private zoo hygiene

Discipline cycle	Basic disciplines
Course	3
Credits count	5
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.

Learning outcomes by discipline

1) To carry out professional activities in accordance with regulatory legal acts in the field of agro-industrial complex

2) Propose projects for the organization and construction of livestock facilities, complexes for different types of animals

3) Organize and carry out sanitary and preventive work to prevent non-infectious, infectious and invasive diseases of farm animals

Prerequisites

General zoo hygiene

Postrequisites

Optimization of conditions for keeping productive animals and birds

General Veterinary Surgery

Discipline cycle	Profiling discipline
Course	3
Credits count	5
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.

Learning outcomes by discipline

1) Uses the knowledge of surgery for theoretical and practical purposes, as well as in understanding the essence of the main methods used in operative surgery, in solving situational problems of the course.

2) Knows the basic concepts and definitions, the topography of organs and tissues in various animal species, types of surgical operations, surgical diseases of animals.

3) Uses the acquired knowledge for the diagnosis, treatment and prevention of surgical diseases of animals.

Prerequisites

General Veterinary Surgery

Postrequisites

Veterinary Traumatology

Veterinary gynecology

Discipline cycle	Basic disciplines
Course	4
Credits count	5
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.

Learning outcomes by discipline

1) Know about the insemination of animals, determine the herd status of each animal species and distinguish by month.

2) To identify the main diseases and classification of abortions in the pathologies of the hip joint

3) Understanding the physiology of birth, mastering the basics of obstetric care at birth.

Prerequisites

Veterinary obstetrics

Postrequisites

Organization of artificial insemination of animals and birds

Veterinary-sanitary examination

Discipline cycle	Basic disciplines
Course	4
Credits count	5
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.

Learning outcomes by discipline

1) knows the rules of preparation, transportation, delivery of slaughtered cattle and the maintenance and preparation of livestock for slaughter at meat processing enterprises.

2) knows the devices of meat production enterprises, technology and hygiene of processing of slaughtered cattle and slaughter of

livestock

3) knows the methods of examination and appropriate veterinary and sanitary assessment of healthy animals, as well as animals that have been ill with various infectious, invasive and non-communicable diseases

Prerequisites

Veterinary microbiology

Postrequisites

Veterinary and sanitary examination of animal raw materials

Pathomorphology of infectious diseases

Discipline cycle	Basic disciplines
Course	4
Credits count	5
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.

Learning outcomes by discipline

- 1) analyzes clinical and laboratory, experimental, pathomorphological and other data, drawing conclusions based on them about the causes and development of pathological processes
- 2) Describes the problems of general pathology and adequately assess modern theoretical concepts and directions in the field of veterinary medicine
- 3) Classifies the causes and mechanism of reactions with typical pathological processes, their essence with manifestations for the body in various diseases

Prerequisites

Pathological anatomy of animals

Postrequisites

Epizootology and infectious diseases of animals

Production practice 2

Discipline cycle	Basic disciplines
Course	4
Credits count	5
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.

Learning outcomes by discipline

Able to diagnose provide primary medical care to animals and birds

Prerequisites

Production practice

Postrequisites

Production practice 3

General Veterinary Parasitology and Helminthology

Discipline cycle	Profiling discipline
Course	4
Credits count	5
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 zoonotheses 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.

Learning outcomes by discipline

- 1) Knows the biological foundations of parasitology, classification of pathogens caused by helminths, morphology and biology.
- 2) Applies - modern methods of detecting helminthiasis diseases, methods of treatment.
- 3) Conducts scientifically based veterinary and sanitary measures against helminthiasis, taking into account the natural and economic features of the area, minthiasis.

Prerequisites

Animal Physiology

Postrequisites

Veterinary protozoology and arachnoentomology

Epizootology and infectious diseases of animals

Discipline cycle	Profiling discipline
Course	4
Credits count	5
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.

Learning outcomes by discipline

- 1) To reproduce the essence of the complex method of diagnosis of infectious diseases
- 2) Show the algorithm for compiling preventive and health measures for infectious diseases
- 3) Understand and participate in epizootological studies of infectious diseases, including the collection, storage and transportation of samples and samples of material for research, tracking the source of infection and spread of infectious diseases.

Prerequisites

Pathomorphology of infectious diseases

Postrequisites

Veterinary epidemiology

Veterinary protozoology and arachnoentomology

Discipline cycle	Profiling discipline
Course	5
Credits count	5
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.

Learning outcomes by discipline

- monitoring of arachnoentomosis and protozoa,

- conducting laboratory studies of arachnoentomosis and protozoa, studying morphological features and distinguishing types of pathogens, making a final diagnosis,

- treatment of arachnoentomosis and protozoa,

- arachnoentomosis and

Prerequisites

General Veterinary Parasitology and Helminthology

Postrequisites

Final examination

Zoonoses

Discipline cycle

Profiling discipline

Course

5

Credits count

5

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.

Learning outcomes by discipline

- to diagnose infectious diseases,

- to carry out preventive and health measures for infectious diseases of animals,

Prerequisites

Epizootology and infectious diseases of animals

Postrequisites

Final examination

Innovative research methods in veterinary medicine

Discipline cycle

Profiling discipline

Course

5

Credits count

4

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.

Learning outcomes by discipline

- - readiness for self-development, self-realization, self-education;

- participate in scientific discussions and procedures for the protection of scientific papers of various levels,

- to make reports and reports on the subject of ongoing research,

- to analyze domestic and foreign experience on the subject of research,

- develop plans, programs and methods of conducting scientific research,
- conduct scientific research and experiments ;
- ability and willingness to participate in the development of modern theoretical and experimental research methods in order to create new promising tools, in the organization of work on the practical use and implementation of research results,
- the ability to apply innovative methods of scientific research in veterinary medicine.

Prerequisites

Basic and profile disciplines of the EP

Postrequisites

Final examination

Production practice 3

Discipline cycle	Profiling discipline
Course	5
Credits count	5
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.

Learning outcomes by discipline

Able to diagnose provide primary medical care to animals and birds

Prerequisites

Production practice 2

Postrequisites

Final examination