CATALOG OF ELECTIVE DISCIPLINES

7M09 - Veterinary
(Code and classification of the field of education)

7M091 - Veterinary
(Code and classification of the direction of training)

0841
(Code in the International Standard Classification of Education)

M138 - Veterinary Science
(Code and classification of the educational program group)

7M09101 - Veterinary medicine
(Code and name of the educational program)

Master
(Level of preparation)

set of 2023

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Chairman of the Academic Council Oralkanova I.A.

Theory and methods of experiment

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

Based on the basic requirements of science, the student learns to determine the tasks of his research work and theoretically form and consolidate a system of methodological thinking. At the same time, he logically builds the position of the scientific theoretical principle, formulates search sequences in the analysis of experimental methods. Based on these basic principles, it is possible to determine the flexibility in the formation of a research form of using modern scientific achievements of veterinary medicine for purposes.

Purpose of studying of the discipline

The purpose of studying the discipline is in-depth theoretical and practical training of a specialist with a high level of professional training in various areas of veterinary medicine, biology, medicine and biotechnology. When studying the discipline, students must master the methods of experiment, questions of the organization of scientific research, planning of scientific research, methods of organization and methodology of research, methods of evaluation and analysis of the results of scientific research.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.

Learning outcomes by discipline

- know:
1. experimental methods, organization of scientific research, planning of scientific research
2. methods of organization and methodology of research
3. methods of evaluation and analysis of the results of scientific research
4. special and additional research methods in the diagnosis of animal diseases.
- possess:
1. Theoretical knowledge
2. Foreign languages, to get acquainted with foreign works (at least with a dictionary)
- to learn:
1. experimental methods, questions of the organization of scientific research, planning of scientific research
2. special and additional research methods in the diagnosis of animal diseases.

- have:
1. Equipment, reagents, equipment and other materials for research
2. Specially equipped research laboratory.
- purchase:
1. Theoretical and practical skills in the specialty "Theory and methods of experiment".
2. All the necessary data on the theory and

Prerequisites

Bachelor

Postrequisites

Nontraditional treatments for non-communicable animal diseases

Veterinary office-work

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

Veterinary records management meets the basic requirements for the registration of veterinary accompanying and mandatory documents in the implementation of veterinary and sanitary measures, transportation of animals and products of animal origin in compliance with the requirements of the legislation of the Republic of Kazakhstan. In the process of training and paperwork, in addition to the main legislative documents, the student learns to make out economic, statistical, accounting and other data related to the production necessity.

Purpose of studying of the discipline

The purpose of mastering the subject is to teach formality in veterinary activities on the basis of legal principles corresponding to the type of veterinary field. In this regard, in the course of theoretical and practical training, the student learns how to keep records of the types of veterinary services in the treatment and prevention of animals at the level of veterinary biological science. He also learns to describe the importance of relevance and potential practical value in the development of conceptual projects related to the problem in the relevant field.

Learning Outcomes

ON1 Apply fundamental scientific, pedagogical, managerial, communicative knowledge and skills in professional activities.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.

Learning outcomes by discipline

Knowledge of the design of regulatory legal acts in the field of veterinary medicine and related activities and the ability to organize anti-epizootic veterinary and sanitary measures. Perfectly understand the meaning of the witness documents transferred to the veterinary service and duties. Be able to draw up a general plan of work carried out in connection with quarantine and restrictive measures and clearly represent the tasks of authorized organizations and enterprises in relation to the performance of these works and involve in the joint implementation of various types of contractual activities.

Prerequisites

Bachelor

Postrequisites

Modern problems of veterinary medicine

Organization of scientific researches and technique of writing of the master thesis

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The researcher has the opportunity to develop a research plan and organize activities and analysis of the results, as well as refer to relevant scientific papers and justify them. In addition, according to the basic requirements for writing a master`s thesis, students learn to formulate research results with appropriate descriptions and their general semantic content in accordance with the main goals and objectives of the specialty and research work.

Purpose of studying of the discipline

To master research methods in order to formulate a research plan based on the principles of solving professional problems suitable for the subject program of mastering. It is also possible to analyze the compatibility of positions with modern technologies with a systematic expansion of the volume of theoretical and practical knowledge acquired during education. At the same time, they learn to analyze the results of research and further realize the needs of their implementation in the field of production.

Learning Outcomes

ON1 Apply fundamental scientific, pedagogical, managerial, communicative knowledge and skills in professional activities.
ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON8 Be able to adequately understand the legal principles of protecting the population from diseases of zooanthroponosis and conduct propaganda work on veterinary education of the population.

Learning outcomes by discipline

Knowledge of the design of regulatory legal acts related to scientific research in the field of veterinary medicine. Possess the skills of organizing and conducting antiepizootic measures, drawing up and justifying a plan for clinical examination and medical examination of animals. Be able to argue the results obtained in the course of special studies and give specific recommendations for their implementation in production. In addition, he will learn how to write a research paper worthy of the results of scientific research, in accordance with the requirements of a master`s thesis.

Prerequisites

Bachelor

Postrequisites

Problems of diseases of a noncontagious etiology

Veterinary Ortopediy

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

Veterinary orthopedics teaches methods for determining and verifying the anatomical and topographic structure of the bone apparatus and hooves of animals in the sequence of biomechanical movements in them. It also teaches to consistently describe hoof diseases known in veterinary practice. Students master the techniques of restoring hoof deformity. When identifying deviations in relation to the general orthopedic concept, it teaches the identification of etiopathogenetic and clinical signs depending on the setting of the limbs of animals with the disease.

Purpose of studying of the discipline

The purpose of the discipline is the theoretical and practical basis for detecting anomalies of the musculoskeletal system of animals and providing surgical care. At the same time, in the process of mastering basic skills, he develops the field of clinical thinking and learns the basics of surgical operations.

Learning Outcomes

ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.

Learning outcomes by discipline

Be able to assess and identify deviations in the formation of hooves of animals depending on their age conditions, maturity and maintenance. Possess the performance of various veterinary and surgical measures related to structural changes in the hooves and pathological phenomena arising in it.

Prerequisites

Bachelor

Postrequisites

Biotechnology in animal husbandry

Veterinary Ophthalmology

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline
Veterinary ophthalmology allows you to master the skills of procedures and work with the organs of vision. Based on the biological characteristics of animals, methods of examination of the functional capabilities of the organ of vision and its anatomical structure are studied. Forms skills for the development of pathological processes in eye diseases and the use of therapeutic and surgical techniques. Teaches to develop a plan of modern measures for the prevention and treatment of diseases of the visual organs.
Purpose of studying of the discipline
The purpose of the subject is to form prerequisites for the acquisition of theoretical and practical knowledge on the provision of ophthalmological services to animals. At the same time, it teaches the realization of surgical needs related to ophthalmological diseases in animals.
Learning Outcomes
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.
Learning outcomes by discipline
Masters clinical observation, treatment and prevention of major diseases and injuries of the visual organ, concerning the anatomical and physiological state of the visual organ, depending on the biological specificity of the animal. Be able to understand the basic functions related to the anatomical structure of the eye and provide emergency care for circulatory insufficiency in the retina and optic nerve. The possibility of examining the eyeball and eye appendages and studying their signs.
Prerequisites
Bachelor
Postrequisites
Practical therapy in veterinary medicine

Surgical diseases of cats and dogs

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline
The subject surgical diseases of dogs and cats teaches to determine the pathogenesis, pathological process in an animal and determine the need for surgical intervention. In other words, the discipline teaches the anatomical structure of organs in need of surgical care, based on its task and the topographic description of the pathological focus in this organ, to determine surgical access to it, to plan the operation and its conduct.
Purpose of studying of the discipline
Purpose of studying of the discipline: to give students the sum of practical and theoretical skills of recognizing pathological processes in the body of a sick animal, the causes and conditions for their manifestation, the essence of diseases, the measures of their prevention and control.
Learning Outcomes
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON8 Be able to adequately understand the legal principles of protecting the population from diseases of zooanthroponosis and conduct propaganda work on veterinary education of the population.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.
Learning outcomes by discipline
Prerequisites
Bachelor
Postrequisites
Kinologia and felinology

GIS technology in epizootology

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline
Geographical information system (GIS) in epizootology is distinguished by its veterinary significance. GIS technology allows computer automation to constantly get acquainted with program data, systematizing epizootological information and long-term statistical data. In the GIS structure, students are trained on an electronic map and the requirements for the introduction of cause-and-effect relationships in relation to the disease and the dynamics of the spread of infectious diseases in animals.
Purpose of studying of the discipline
The purpose of the discipline is to study the theoretical and practical justifications for the diversity of infectious diseases, their decline and disappearance. In this regard, for geoinformation analysis, they learn to collect and analyze data for systematic input into cartographic monitoring in automatic mode.
Learning Outcomes
ON1 Apply fundamental scientific, pedagogical, managerial, communicative knowledge and skills in professional activities.
ON4 Possess epizootological analysis, diagnosis and treatment of non-infectious and invasive diseases. Determine the causes of death of animals.
ON6 To apply veterinary legislation in practice as a regulatory legal act, depending on the types of veterinary activities.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.
Learning outcomes by discipline

Owns the use of geographic information systems technology to systematize predictive control regarding the spread and danger of the epizootic process. They will learn to give recommendations on the use of the results of veterinary practical research in GIS technology. Complies with safety requirements and acquires skills in a biological laboratory working with dangerous pathogens.

Prerequisites

Bachelor

Postrequisites

Diagnosis and prevention of rare and exotic parasitic diseases of animals

Regional epizootology

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

Regional epizootology monitors and analyzes infectious diseases among animals and birds. Depending on the nosological forms of the infectious source, territorial security and the possibility of its spread are indicated, as well as their own predictive prescriptions for buffer zones. In this regard, students will acquire the skills of drawing up plans for the prevention of infectious diseases. During the training, the skills of predicting abiotic objects with a high probability of infection are acquired.

Purpose of studying of the discipline

The purpose of the dissplina is to study the occurrence of infectious diseases between animals in each locality related to the ecological system, as a veterinary and geographical basis of infectious connections. At the same time, the historical and genetic relationship of infectious diseases with the environment is being investigated.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON4 Possess epizootological analysis, diagnosis and treatment of non-infectious and invasive diseases. Determine the causes of death of animals.
ON6 To apply veterinary legislation in practice as a regulatory legal act, depending on the types of veterinary activities.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.

Learning outcomes by discipline

He will learn to analyze the patterns of development of the epizootic process in relation to the specifics of the territorial spread of infectious diseases, to manage the processes of spread and disappearance. Interpretation of the results of modern diagnostic tests, masters the situations of treatment of infected animals and their further interaction with them, using complex epizootological measures, masters the development and prevention of infectious processes in sick animals.

Prerequisites

Bachelor

Postrequisites

Veterinary entomology and entomological methods of research

Epizootological monitoring of infectious diseases of animals and birds

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline teaches the conditions for the penetration of a pathological factor into the animal`s body, which is of particular importance in infectious diseases of animals and birds, with the sources of its origin. In this regard, he is mastering the study of etiopathogenetic processes in relation to the nosological form of an infectious disease. It also evaluates the epizootological situation associated with the disease and predicts relapses, summarizes basic territorial information and plans veterinary and sanitary measures against it.

Purpose of studying of the discipline

The purpose of the discipline is to study the theoretical and practical foundations of epizootological and infectious diseases associated with the spread of infectious diseases of animals and birds and their species. They also learn to identify an infectious disease and draw up an action plan to combat it. At the same time, they learn to draw up documents based on the legislative principles of epizootological observation and supervision.

Learning Outcomes

ON4 Possess epizootological analysis, diagnosis and treatment of non-infectious and invasive diseases. Determine the causes of death of animals.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.
ON6 To apply veterinary legislation in practice as a regulatory legal act, depending on the types of veterinary activities.

Learning outcomes by discipline

He is proficient in analyzing the patterns of the development of the infectious process among animals and managing the processes of the emergence, spread and disappearance of infectious diseases of animals. Interpretation of the results of modern diagnostic tests to detect the infectious process. Masters the requirements for isolation and destruction of infected animals. Has the ability to draw up a plan for the prevention of the epizootic process, taking into account the intensity of the spread of the disease.

Prerequisites

Bachelor

Postrequisites

Modern problems of veterinary medicine

Clinical and biophysical methods for diagnosing diseases of the reproductive organs

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline
Allows you to learn how to work with modern devices for diagnosing diseases of the genital organs of animals and determining the functionality of the organ. In this direction, it makes it possible to conduct a biophysical examination based on the anatomical and physiological structure of the penis, depending on the timing of its anatomical and physiological maturation. The identification of the consequences of impotence and pathological processes in the genitals of animals, the identification of therapeutic and preventive measures.

Purpose of studying of the discipline
In order to teach the subject, the theoretical and practical foundations of biophysical tests used in assessing the functional states of the reproductive system associated with the growth and reproduction of animals are mastered. At the same time, in the process of teaching biophysical methods, the prerequisites for conducting clinical diagnostic and therapeutic and preventive measures are assimilated.

Learning Outcomes
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.

Learning outcomes by discipline
As animals mature physiologically, their reproductive organs learn to use methods of biophysical gestation during a preliminary examination of their ability to function. Possesses the skills of applying theoretical and methodological approaches to the study of the nature and mechanisms of emerging pathological derivatives in reproductive organs.

Prerequisites
Nontraditional treatments for non-communicable animal diseases

Postrequisites
Practical therapy in veterinary medicine

Biotechnology in animal husbandry

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline
The discipline studies modern areas of biotechnology related to the purposeful construction of new combinations of genetic material capable of reproducing in a cell in vitro, in vivo and synthesizing a specific product. The discipline studies the achievements of biotechnological science and can create new directions in animal husbandry and the production process, using knowledge of the biological foundations and methods of biotechnology to improve the production process in animal husbandry.

Purpose of studying of the discipline
The purpose of the discipline is to analyze the genetic potential of modern works in the breeding and reproduction of farm animals on theoretical grounds. At the same time, he learns to build a consistent basis for the future expected results of the practical implementation of high-tech achievements.

Learning Outcomes
ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.

Learning outcomes by discipline
He has the skills to draw up biotechnological rules concerning animal husbandry, justifying the prerequisites for breeding and breeding animals for a specific purpose. Owns methods of prevention and control of infertility and tightness of animals, as well as natural reflections and artificial insemination technology. Owns the choice of rational aspects of zootechnical, breeding and types of feeding and maintenance in technological terms in animal husbandry.

Prerequisites
Veterinary office-work

Postrequisites
Hematologic parameters of animals

Modern methods of diagnostics, treatment and prevention in obstetrics

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline
In the conditions of intensive development of animal husbandry, he teaches the use of achievements of veterinary medicine used for the diagnosis, treatment of obstetric animals diseases with the maximum use of modern technologies. Teaches the use of technologies to stimulate synchronization of the sexual cycle of the donor and recipient. Allows you to master the skills of using advanced methods of reproduction of genetically potential animals. Studies ways to preserve hygienic independence in obstetrics and breeding work with animals.

Purpose of studying of the discipline

The purpose of the discipline is to teach the theoretical and practical foundations of obstetric and diagnostic prerequisites related to the physiological state of animals. At the same time, the rules of obstetric care are studied as necessary and modern advanced methods of treatment and prevention of obstetric and gynecological diseases.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON6 To apply veterinary legislation in practice as a regulatory legal act, depending on the types of veterinary activities.

Learning outcomes by discipline

They are trained in the use of modern methods in accordance with the achievements of technology in the implementation of therapeutic and preventive measures related to topical problems of veterinary obstetrics. In this regard, during the basic training of the subject, specific prerequisites associated with the biological characteristics and physiological state of animals are mastered.

Prerequisites

Theory and methods of experiment

Postrequisites

Problems of diseases of a noncontagious etiology

Veterinary entomology and entomological methods of research

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

Veterinary entomology develops in close connection with biological sciences and other branches of entomology, studies the spread of insects in the biological environment and their benefits and harm to animals, it studies the issues of the causative agent of animal diseases, the carrier of pathogens of various infectious and invasive diseases, and also considers their biological feature in reducing the quality of animal products.

Purpose of studying of the discipline

The purpose of the discipline is an in-depth study of fundamental knowledge in the structure of biological systems, anatomy and physiology of insects. At the same time, the main biological and ecological features, harmful effects on agriculture and some useful activities are also taught. They are also taught how to handle them.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON8 Be able to adequately understand the legal principles of protecting the population from diseases of zooanthroponosis and conduct propaganda work on veterinary education of the population.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.

Learning outcomes by discipline

Prerequisites

Regional epizootology

Postrequisites

Diagnosis and prevention of rare and exotic parasitic diseases of animals

Veterinary arachnology and acarological research methods

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

Veterinary arachnology studies the specifics of the transmission of infectious and invasive diseases, which is caused by the defeat of living arthropods by parasites. The preliminary conditions for reducing the productivity of animals to a large extent are also considered, despite the fact that they are not directly susceptible to death. In this regard, veterinary arachnology teaches to describe the scientific basis of measures to combat direct and indirect effects on productive animals.

Purpose of studying of the discipline

The purpose of the subject on the basis of veterinary arachnology and acarology is to study the biological processes of insects living in the body of mammals and birds. In parallel, the harmful effects of these insects on the animal body and the environment are being studied. The theoretical and practical foundations of measures to combat these insects are also taught.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.

Learning outcomes by discipline

Has expertise in the effectiveness of veterinary measures with economic costs for animal husbandry in the field of veterinary arachnology and acarology. He also masters sampling methods to identify and identify pathogenic processes that occur under the influence of insect exposure to the animal`s body and productivity. In this regard, they are trained to carry out periodic and operational measures to combat insect species and in relation to them.

Prerequisites

Epizootological monitoring of infectious diseases of animals and birds

Postrequisites

Diagnosis and prevention of rare and exotic parasitic diseases of animals

Kinologia and felinology

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies the development of domestic animals, the principles of various veterinary and zoopsychological requirements in their development. It determines the needs of research in the development of the biological potential of the animal. Teaches to solve problems that arise during breeding work in the process of their cultivation. At the genetic level, the ways of assimilation of certain habits and skills in an animal are being improved, methods of treatment and prevention of various diseases are being studied.

Purpose of studying of the discipline

The purpose of the subject is to study the zootechnical and zoopsychological foundations from a theoretical and practical point of view in order to realize the biological importance of animal husbandry for the benefit of humanity. At the same time, skills related to the improvement of methods of new models of tricks used to form special skills in animals are being studied.

Learning Outcomes

ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON6 To apply veterinary legislation in practice as a regulatory legal act, depending on the types of veterinary activities.
ON8 Be able to adequately understand the legal principles of protecting the population from diseases of zooanthroponosis and conduct propaganda work on veterinary education of the population.

Learning outcomes by discipline

Masters the general veterinary needs for the adoption of carnivorous pets. In addition, in the course of life, dogs and cats master the formation of the animal`s need for the assimilation of useful habits and actions necessary for humanity. In this regard, he learns to promote the correct assimilation of ethological actions in animals.

Prerequisites

Surgical diseases of cats and dogs

Postrequisites

Parasitology and parasitic diseases of cats and dogs

Domestic non-communicable diseases of cats and dogs

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies etiopathogenic factors of non- communicable diseases occurring in dogs and cats. It also teaches pathophysiological recognition of manifestations of clinical symptoms arising from the pathological process and the identification of nosological cognitive disorders. In this regard, they teach differentiation by clinical signs of the results of morphobiochemical analysis in the diagnosis and classification of diseases and give therapeutic characteristics of the treatment and prevention of diseases.

Purpose of studying of the discipline

In order to study the subject, the student masters the prerequisites necessary for the systematization of the relevant symptomatic grounds, etiological factors of non-communicable diseases associated with carnivorous pets. In this regard, the therapeutic principles of mastering therapeutic and preventive measures based on nosological knowledge will be studied.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.

Learning outcomes by discipline

Possesses the ability to analyze etiopathogenic factors of non- infectious internal diseases in domestic animals. Masters the understanding of advanced models in the process of studying the biological characteristics of animals and generalizing anamnesis data. He is able to predict clinical pharmacological rationality in the treatment of animals. Owns the use of modern tools.

Prerequisites

Surgical diseases of cats and dogs

Postrequisites

Parasitology and parasitic diseases of cats and dogs

Nontraditional treatments for non-communicable animal diseases

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The physicobiological mechanisms of action of various factors in the treatment of animals by non-traditional methods (needles, weak currents, laser radiation, cold, pressure burns, irritants, etc.) that affect biological points in the animal`s body are described. In this regard, biochemical and biophysical formations of morphological structure resulting from the influence of a factor on a biological point form systemic and positive aspects in the body of animals as a whole.

Purpose of studying of the discipline

For the purposes of the subject, the prerequisites of non-traditional treatment based on the therapeutic principles of the treatment of non- communicable diseases are studied. In this regard, it is necessary to learn how to justify the effectiveness of the appropriate treatment of the etiopathogenetic process. In addition, theoretical and practical characteristics of pharmacobiochemical processes are

taught.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.

Learning outcomes by discipline

Due to the etiopathogenetic nature of non-infectious auras in animals, he masters the compilation of justifications and the use of non-traditional approaches to treatment used in conditions of opportunity. Has the ability to fully understand etiopathogenetic trends in relation to the type of disease and choose methods of examination.

Prerequisites

Theory and methods of experiment

Postrequisites

Practical therapy in veterinary medicine

Problems of diseases of a noncontagious etiology

Discipline cycle	Profiling discipline
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

Currently, due to the intensive development of animal husbandry, in the process of achieving high rates of animal products, infectious etiological diseases occur in animals. In this regard, new approaches to the modern solution of urgent problems are being considered, they are being studied in separate branches of veterinary science. In parallel with the justification of the consequences of etiological factors, they teach the assessment of animal health depending on the indicators of immunological resistance of the organism.

Purpose of studying of the discipline

The purpose of the subject is to provide a theoretical basis for modern models in solving the actual problem of non-communicable diseases of farm animals. In this regard, they learn to implement appropriate justifications for the practical solution of these prerequisites.

Learning Outcomes

ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.

Learning outcomes by discipline

Has the skills to identify current problems of non-communicable diseases in animals in veterinary medical practice and their solutions at the modern level. Owns research methods and the use of tools and equipment used for the examination of patients. Depending on the type of nosological disease, he learns to collect anamnesis data and describe reasonable sequences when distinguishing. Randomness adapts to the formation of verification skills depending on the circumstances.Owns

Prerequisites

Theory and methods of experiment

Postrequisites

Diagnosis of non-communicable diseases of young animals

Practical therapy in veterinary medicine

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

Based on the practical principles formed on the basis of the principles of veterinary therapy, the veterinarian forms his own experience in the treatment, prevention of animals in accordance with modern requirements. Teaches to describe the rationality of treatment and formulate the rationale for treatment, identifying the etiopathogenetic factor, by appropriate diagnostic differentiation of the nosological form of the disease before treatment. It is based on the stimulation of cellular and humoral factors to increase the resistance of the body.

Purpose of studying of the discipline

The purpose of the discipline is to provide a clinical and pharmacological justification of a theoretically proposed therapeutic measure suitable for the nosological type of animal disease related to veterinary therapy. In this regard, in the treatment of the disease, they learn to build a comprehensive treatment system depending on the etiopathogenetic state. At the same time, the student learns to follow the characteristics necessary to maintain the normal physiological state of the animal`s body.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.
ON6 To apply veterinary legislation in practice as a regulatory legal act, depending on the types of veterinary activities.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.

Learning outcomes by discipline

Forms modern skills in demand in the treatment and prevention of animals based on a practical approach in veterinary therapy. He can also formulate theoretical and scientific justifications concerning the choice of advanced models of therapeutic efficacy.

Prerequisites

Problems of diseases of a noncontagious etiology

Postrequisites
Research practice

Domestic non-communicable diseases of birds

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline
The discipline studies the clinical, pathological, anatomical data of non-infectious diseases occurring in birds, in connection with the biological characteristics and sexual maturity of the bird and the purpose of its maintenance. Teaches to substantiate the etiology-pathogenetic features of the disease based on the diagnosis. He studies the main problems of considering the processes of polyethological development, designing types of tests using methods in its isolation. Poultry farming studies the mechanisms of reducing resistance and the occurrence of concomitant diseases.

Purpose of studying of the discipline
For the purposes of the subject, the principles of the application of appropriate veterinary measures for non-infectious diseases of birds are taught. In addition, they learn therapeutic techniques and study methods used in the prevention and treatment of diseases associated with the biological characteristics of birds.

Learning Outcomes
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.

Learning outcomes by discipline
Has a detailed understanding of the etiopathogenetic trends of non-communicable factor diseases arising in connection with the biological and target features of bird reproduction. In this regard, he masters the appointment of examinations and therapeutic measures depending on the nosological form of the disease. At the same time, depending on the specific biological specificity of the bird`s organism, it masters the functions of independent systems with a full understanding of the physiological processes in them.

Prerequisites
Modern methods of treatment and prevention of parasitosis of birds

Postrequisites
Forensic examination of diseases and death of animals

Hematologic parameters of animals

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline
The functions in maintaining homeostatic stability in accordance with the genotype of the animal are hematological and physico-biochemical processes. With the development of methods of mathematical modeling of the sequence of hematological indicators, the characteristics of the phenomena in it are studied. The morphophysiological picture of blood is mastered, the assessment of animal health by clinical and immunological examination. Based on the data obtained, the skills of drawing up a special plan of measures for treatment and prevention are acquired.

Purpose of studying of the discipline
When examining an animal, morphobiochemical blood parameters are checked and evaluated to determine and evaluate the physiological and clinical state of the animal`s body. In this regard, they learn to give the correct answer to the relative compatibility of blood composition indicators that have diagnostic significance.

Learning Outcomes
ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON4 Possess epizootological analysis, diagnosis and treatment of non-infectious and invasive diseases. Determine the causes of death of animals.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.

Learning outcomes by discipline
Masters the verification of morphofunctional blood tests conducted to identify immunobiological or physiological normality in the animal`s body. In this regard, they are trained to work with modern devices and equipment. The selection of blood samples necessary for hematological examination masters the methods of their storage and transportation, as well as biological material and diagnostics.

Prerequisites
Modern problems of veterinary medicine

Postrequisites
Clinical Anatomy (Sectional Course)

Diagnosis and prevention of rare and exotic parasitic diseases of animals

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline
Studies parasitic diseases of animals that occur during life in conditions other than the environment adapted to climatic and biogeocenotic conditions of growth or natural habitat. Drawing up plans to prevent the spread of diseases. Various checks concerning the occurrence of these diseases, especially among wild animals, are being investigated and methods of conducting special veterinary measures are being studied. As a result of the training, prerequisites are formed for acquaintance with exotic invasive, tropical animal diseases.

Purpose of studying of the discipline
The purpose of the subject is veterinary therapeutic measures for the treatment and prevention of rare invasive diseases among animals. At the same time, rational ones are described. modern methods of treatment and prevention.

Learning Outcomes
ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON4 Possess epizootological analysis, diagnosis and treatment of non-infectious and invasive diseases. Determine the causes of death of animals.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.

Learning outcomes by discipline
Has expertise in the occurrence of rare parasitic diseases in animals for geographical and other reasons. In this regard, he is mastering methods of sampling from the environment and animals in order to determine the type of parasitic pathogens. In the process of carrying pathogens, they will learn how to conduct and select the necessary research methods.

Prerequisites
Veterinary entomology and entomological methods of research

Postrequisites
Oncopathology

Modern methods of treatment and prevention of parasitosis of birds

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline
During the treatment of parasitic diseases of birds, they are trained to familiarize themselves with advanced technologies of modern therapeutic, preventive measures through information messages and their expertise. The analysis of the ways of bird damage, the mechanisms of the spread of the disease is carried out, taking into account the epizootic conditions of helminthic diseases, the prognosis of appropriate measures is studied. Characteristics of the use of rationality of advanced veterinary measures in relation to invasive diseases are provided.

Purpose of studying of the discipline
The purpose of the course is to teach high-tech veterinary principles of prevention and treatment of bird parasitosis. In this regard, the use of advanced models of the spread of parasitic diseases among birds and related therapeutic measures are being studied.

Learning Outcomes
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.
ON9 Analyze the results of therapeutic and preventive measures of animal and bird diseases.

Learning outcomes by discipline
Owns the establishment of the causes of parasitic diseases depending on the habitat and biological specificity of birds and the conduct of veterinary measures in relation to them. In this regard, he learns to take preventive measures related to his own development and intermediate hosts. Has the ability to draw up a plan for a timely survey of birds and identify needs.

Prerequisites
Modern problems of veterinary medicine

Postrequisites
Forensic examination of diseases and death of animals

Parasitology and parasitic diseases of cats and dogs

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline
In the organs and tissues of the body of dogs and cats, pathogens of invasive diseases selectively accumulate in various organs and only in one organ, depending on the biological characteristics of adaptation to habitation. during the diagnosis of invasive diseases, special verification studies are carried out on various samples. The application of morphological, biological reference methods for the detection of invasive diseases of microscopic size and the isolation of their specific species is being studied.

Purpose of studying of the discipline
For the purposes of the subject, veterinary activities related to invasive diseases among carnivorous domestic animals are taught. In this regard, the spread of parasitic diseases, their biological features and vital activity in the body of animal pathogens are being studied.

Learning Outcomes
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.

ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.

Learning outcomes by discipline

Masters the implementation of measures to identify and treat intermediate hosts of the parasite that provoke the development of parasitic diseases that occur among pets. In this regard, the animal masters modern methods of clinical and laboratory research in identifying changes in the systemic and functional functions of organs in relation to the pathogenic process developing in the animal`s body when infected with an invasive disease.

Prerequisites

Domestic non-communicable diseases of cats and dogs

Postrequisites

Oncopathology

Diagnosis of non-communicable diseases of young animals

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

The subject teaches a detailed consideration of the etiopathogenetic factors taken into account in the assessment of non-communicable diseases of young animals - from the embryonic and postembryonic points of view. In this regard, the veterinary conditions imposed on the female animal during the embryonic development of the offspring are discussed. The etiological consequences of factor diseases are also being studied according to the anatomical, physiological and biological characteristics of young animals after their birth. At the same time, methods of differentiation in the diagnosis of systemic diseases are being studied.

Purpose of studying of the discipline

According to the purpose of the subject - based on the basic principles, they teach accurate recognition of syndromic indicators related to the type of nosological disease and methods of rational examination in its diagnosis. Scientifically give clues to their classification according to the main factors of common diseases. In this regard, a comprehensive treatment system will be drawn up, mastered on the basis of the prescribed medical recommendation.

Learning Outcomes

ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.
ON7 To form a therapeutic system based on the etiopathogenetic process in the body, taking into account the biological characteristics of animals and birds.

Learning outcomes by discipline

The biological specificity of animals is understood as consideration of the etiopathogenetic process in the diagnosis of diseases of young animals from the embryonic and postembryonic points of view. In this regard, he masters the examination of the main etiologies of the pathological process that has arisen. He also masters the compilation of the systemic structure of the complex treatment of diseases of young animals.

Prerequisites

Biotechnology in animal husbandry

Postrequisites

Clinical Anatomy (Sectional Course)

Clinical Anatomy (Sectional Course)

Discipline cycle	Profiling discipline
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

The purpose of the subject is to assess the condition of an animal in relation to its biological characteristics and physiological state from the point of view of clinical anatomy and veterinary assessment is studied. In this regard, they learn to determine the necessary prerequisites for the development of the animal and the corresponding needs of veterinary measures.

Purpose of studying of the discipline

Acquire the skills of autopsy of dead and dead animals, in order to draw up a conclusion about the causes of death of the animal.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON3 Master the methodology of using modern complex methods of diagnosing animal diseases.
ON5 Analyze and solve theoretical and applied problems of veterinary medicine, provide veterinary preventive measures to animals and birds.

Learning outcomes by discipline

Prerequisites

Modern problems of veterinary medicine

Postrequisites

Research practice

Oncopathology

Discipline cycle	Profiling discipline
Course	2

Credits count	5
Knowledge control form	Examination

Short description of discipline

In modern conditions, the problem of oncological diseases among animals is also relevant in veterinary practice. In this regard, the achievements of science and technology in the field of diagnostics and early detection of the dynamics of oncological pathogenetic processes in the animal body are studied in veterinary medicine. As one of these etiopathogenetic important factors, he masters the study of new scientific research in order to identify genetic abnormal predisposition, heredity and biases in breeding conditions.

Purpose of studying of the discipline

To study the features of the growth of mesenchymal tumors, tumors of the nervous and melanin- forming tissues, tumors of the hematopoietic and lymphatic tissues.

Learning Outcomes

ON2 Conduct fundamental and applied scientific research in the field of veterinary medicine.
ON4 Possess epizootological analysis, diagnosis and treatment of non-infectious and invasive diseases. Determine the causes of death of animals.

Learning outcomes by discipline

Prerequisites

Modern problems of veterinary medicine

Postrequisites

Research practice