SYLLABUS OF THE EDUCATIONAL COMPONENT

PARASITIC DISEASES OF EXOTIC ANIMALS

specialty	211 Veterinary medicine	obligation of discipline	optional
educational program	Veterinary medicine	faculty	veterinary medicine
educational level	Master's degree	department	pharmacology and parasitology

LECTURER

Nikiforova Olga Vasylievna

Higher education - veterinary medicine specialty
Scientific degree - candidate of veterinary sciences 16.00.11 - parasitology, helminthology
Academic status - associate professor of the department of parasitology
Work experience - more than 18 years
Indicators of professional activity on the subject of the course:
• author of more than 25 methodological recommendations;
• author and co-author of more than 110 scientific works,
including articles indexed in scientometric databases Scopus and Web of Science – 7;
• declaratory patents for inventions – 5; training manuals – 3; copyright certificate for the work - 1;
• scientific-practical and methodical recommendations – 9;
• participant in scientific and methodical conferences.

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The following are involved in the teaching of the discipline.

GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT (DISCIPLINE)

Purpose of discipline	**is to provide applicants with in-depth and generalized information, thorough knowledge regarding the organization of ecological and parasitic systems, acquiring practical knowledge in the diagnosis, treatment and prevention of parasitic diseases of exotic animals, and preparing graduate students for independent practical work.**
Format	**lectures, laboratory classes, independent work, individual tasks, team work, simulation project**
Detailing of learning results and forms of their control	• **ability to assess the state of health of animals suffering from parasitic diseases (GC1, GC2, GC3, GC9, SC2, SC3, SC4, SC6, SC7, PLO4, PLO5, PLO7) / simulation team project 1** • **ability to predict the course of parasitic diseases and the effectiveness of control measures (GC1, GC2, GC3, GC9, GC11, SC2, SC3, GC4, SC6, SC7, SC8, SC12, SC13, PLO4, PLO5, PLO6, PLO7, PLO8, PLO9, PLO10)/ individual tasks on the analysis of the regulatory framework** • **ability to evaluate the quality of treatment and preventive measures for parasitic diseases (GC1, GC2, GC3, GC9, GC11, SC2, SC3, SC8, SC12, SC13, PLO6, PLO7, PLO8, PLO9, PLO10) / individual practical tasks** • **the ability to diagnose disorders in the body of animals suffering from parasitic diseases (GC1, GC2, GC3, GC9, SC2, SC3, SC4, SC6, SC7, PLO4, PLO5, PLO7) / training, team project 2** • **implementation of environmental protection and biosecurity mechanisms for animal parasitic diseases (GC1, GC2, GC3, GC12, SC3, SC6, SC11, SC13, PLO4, PLO6, PLO9) / separate element of team project 1**
Scope and forms of control	**3 ECTS credits (90 hours): 18 hours of lectures, 18 hours of practical classes; 54 hours of independent work, control testing (2 tests); final control - differentiated credits.**
Requirements of the teacher	**timely performance of tasks, activity, team work**
Enrollment conditions	**after mastering the following components: Protozoa of ruminants, pigs, horses, carnivores, birds, which are rare. Trematodoses of ruminants, pigs, horses, carnivores, and birds, which are rare. Cestodoses of ruminants, pigs, horses, carnivores, birds, which are rare. Nematodes of ruminants, pigs, horses, carnivores, birds, which are rare. Acarosis of ruminants, pigs, horses, carnivores, birds, which are rare. Entomoses of various species of animals, which are rare.**

COMPLIANCE WITH THE STANDARD OF EDUCATION AND THE EDUCATIONAL PROGRAM

Competences	**GC1 Ability to abstract thinking, analysis and synthesis** **GC2 Ability to apply knowledge in practical situations** **GC 3 Knowledge and understanding of the subject area and profession** **GC 9 Ability to make informed decisions** **GC 11 Ability to evaluate and ensure the quality of work that performing** **GC 12 The desire to preserve the environment** **SC 2 Ability to use tools, special devices, instruments, laboratory equipment and other technical means to carry out the necessary manipulations during professional activities** **SC 3 Ability to follow the rules of labor protection, asepsis and**	**Program learning outcomes**	**PLO4 Collect anamnestic data during registration and examination of animals, make decisions on the choice of effective methods of diagnosis, treatment and prevention of animal diseases** **PLO 5 Establish a link between the clinical manifestations of the disease and the results of laboratory examinations** **PLO 6 Develop quarantine and health measures, methods of therapy, prevention, diagnosis and treatment of diseases of various etiologies** **PLO 7 Formulate conclusions on the effectiveness of selected methods and means of keeping, feeding and treatment of animals, prevention of infectious and non-communicable diseases, as well as production and technological processes**

	antiseptics during professional activities SC 4 Ability to conduct clinical research for the purpose to formulate conclusions about the condition of animals or to establish a diagnosis SC 6 Ability to perform collecting sampling, pack, fix and send samples of biological material for laboratory research SC 7 Ability to organize and conduct laboratory and special diagnostic tests and analyze their results SC 8 Ability to plan, organize and implement measures for the treatment of animals of different classes and species sicked from non-communicable, infectious and invasive diseases SC 11 Ability to apply knowledge of biosafety, bioethics and animal welfare in professional activities SC 12 Ability to develop and implement measures to protect the population from zoonotic diseases common to animals and humans SC 13 Ability to develop strategies for disease prevention of various etiologies		in enterprises for keeping, breeding or operation of animals of different classes and species PLO 8 Conduct the monitor the causes of the spread of diseases of various etiologies and biological pollution of livestock waste, as well as materials and veterinary products PLO 9 Develop measures to protect the population from diseases common to animals and humans PLO 10To offer and use expedient innovative methods and approaches of the decision of problem situations of a professional origin

STRUCTURE OF THE EDUCATIONAL COMPONENT (DISCIPLINES)

Chapter 1. Module 1. ECOLOGICAL AND BIOLOGICAL BASIS OF PARASITISM. PROTOZOOSIS AND TREMATODOSES OF EXOTIC ANIMALS

Lecture 1.	Biological and ecological foundations of parasitism. Exotic and wild animals as a source and vectors of pathogens of parasitoids of other animals and zoonotic invasions. Biological pollution of the environment, biosafety and structural biodiversity of parasitic systems.	Practical class (PC) 1	Rules for selecting material for parasitological studies. Transportation and storage of parasitological material Rules for caring for animals affected by pathogens of invasive diseases. Modern hematological, immunological, genetic, coproscopic and acarological methods of laboratory intravital and postmortem diagnostics of parasitosis.	Self-study work	Ecological and biological features of protozoa, helminths, ticks and insects. Labor protection when performing parasitological research. Safety techniques when working with invasive material and animals affected by pathogens of invasive diseases. Basic rules for the selection, storage, labeling of invasive material. Helminthological methods for research of environmental objects. Basic methods of laboratory intravital and postmortem diagnostics of trematodoses. Features of conducting therapeutic and preventive measures
Lecture 2.3.	Transmissible protozoa: babesiosis, theileriosis, anaplasmosis, trypanosomiasis, beznoitiosis of representatives of the families Cervidae, Poliophoridae and	PC 2	Features of diagnosis, treatment and prevention of the main protozoa: theileriosis, anaplasmosis, trypanosomiasis, beznoitiosis in representatives of the Cervidae, Polorhynchidae and Callosopodidae families. Cryptosporidiosis, neosporosis, giardiasis, intestinal trichomoniasis		

	Callopoda. Intestinal protozoa: eimeriosis, cystoisosporosis, cryptosporidiosis, neosporosis, giardiasis, intestinal trichomoniasis in representatives of the families Weaveridae, Feline, Canine and Bearidae		of animals.		and the use of drugs for the main trematodose invasions in representatives of the families Weaver and Cat Features of differential diagnosis of imaginal cestodes and the use of drugs for their treatment in representatives of the families Weaver, Cat, Dog and Bear.
Lecture 4.	Trematodoses: eurytremosis, hastilesiosis and schistosomiasis in animals of the Cervidae, Poliognathidae and Callosognathidae families; opisthorchidosis, metorchosis, pseudoamphistomosis, metagonimosis, alariosis in representatives of the Weaver, Cat, Dog and Bear families.	PC 3	Features of diagnosis, treatment and prevention of trematodoses of ruminants. Opisthorchidosis, metorchosis, pseudomphistomosis, metagonimiasis, alariosis in representatives of the Vivaridae, Feline, Canine and Bear families.		
Chapter 2. HELMINTHOSES AND ARACHNO-ENTOMOSES OF EXOTIC ANIMALS OF EXOTIC ANIMALS					
Lecture 5.	The main larval cestodes (cysticercosis, coenurosis, echinococcosis, alveococcosis) of representatives of the Cervidae, Polioceridae and Callopoda families and imaginal cestodes (taeniidosis, mesocestoidoses, dipylidiasis, diphyllobothriasis) of representatives of the Weaveridae, Feline, Canine and Bear families.	PC 4	Features of diagnosis and prevention of the main larval cestodes of animals. Diagnosis and differential diagnosis of imaginal cestodes (taeniidosis, mesocestoidosis) in representatives of the families Weaver, Cat, Dog and Bear.	Self-study work	Modern methods of diagnosis and differential diagnosis (helminth ovoscopy, helmintholarvoscopy, larval cultivation, helminthoscopy) of strongyloidiasis of the intestinal and respiratory tract of exotic animals. Immunobiological and molecular genetic methods of diagnosis of trichinosis and dirofilariasis. Modern mortal and vital methods of diagnosis of acarosis of exotic animals. Modern insect-acaricidal agents, features of their use in the treatment of acaroid and entomotic diseases of exotic animals.
Lecture 6.7.	Main nematodoses (ascariasis, strongyloidiasis, trichiasis, filariasis in representatives of the families Weaveridae, Feline, Canine and Bearidae, representatives of the families Cervidae, Polyporidae and Callopoda (neoascariasis, ostertagiasis, cooperiasis, trichostrongyliasis, protostrogiliasis, toxocariasis, toxascariasis,	PC 5	Features of the course, diagnosis, treatment and prevention of ascariasis and strongyloidiasis of the intestinal and respiratory tract of exotic animals.		
		PC 6	Features of the course, diagnosis, treatment and prevention of trichuriasis (trichuriasis, trichinellosis, capillariasis) in exotic animals.		

	hookworm, unciniasis, crenosomiasis, trichuris, trichinosis, capillariasis, onchocerciasis, parafilariasis, stephanofilariasis, dipetalonemiasis) and exotic animals.)				
Lecture 8.9.	Acarosis and entomosis: parasitiform, acariform and trombidiform mites; (psoroptosis, sarcoptic mange, notoedrosis, otodectosis, demodecosis) of exotic animals. Cephenomyosis of deer, cephalopinosis of camels, pharyngomyosis of marals, lipoptenosis of deer, elk, roe deer, siphunculiasis, siphonapterosis, linognathosis, trichodectosis; flies (calliphoridosis, sarcophagidosis, glossinidosis)	PC 7	Features of the course, diagnosis, treatment and prevention of filariasis (onchocerciasis, parafilariasis, stephanofilariasis, dipetalonemosis)		
		PC 8	Features of the course, modern diagnostics, differential diagnostics, treatment and prevention of acarosis of exotic animals		
		PC 9	Features of the course, diagnostics, treatment and prevention of the main entomoses in exotic animals.		

BASIC LITERATURE AND METHODOLOGICAL MATERIALS

literature	1. Timothy M. Goater, Cameron P. Goater, Gerald W. Esch. Parasitism. The diversity and ecology of animal parasites. Second edition, Cambridge, University Press, 2001, 2014, 524 p. 2. Gregory v. Lamann. Veterinary parasitology. Nova biomedical Press, Inc. New York, 2010, 323 p. 3. G.M.Urquhart, J.Armour, J.L.Duncan at all. Veterinary parasitology. The faculty of veterinary medicine, the University of Glasgow, Scotland, 2nd edition 1996, 307 p. 4. Dwight D. Bowman Charles M. Hendrix David S. Lindsay Stephen C. Barr. Feline Clinical Parasitology. Iowa State University Press. 2002. 469 c	Methodical support	

EVALUATION SYSTEM

SYSTEM		POINTS	ACTIVITY TO BE EVALUATED
Final assessment (different credit, exam)	100 points ECTS (standard)	up to 100	40 % - Final testing 60 % - student's current work during the semester
Final assessment (non-differential credit)	100 points ECTS (standard)	up to 100	100 % - average grade for sections

Rating of section	100 points total	up to 30	30 % - answers to test questions
		up to 30	30 % - the result of mastering the block of independent work
		up to 40	40 % - student activity in class (oral answers)

NORMS OF ACADEMIC ETHICS AND CHARITY

All participants in the educational process (including those seeking education) must adhere to the code of academic integrity and the requirements set forth in the provision "On academic integrity of participants in the educational process of DBTU": show discipline, education, respect each other's dignity, show kindness, honesty, responsibility.