SYLLABUS OF THE EDUCATIONAL COMPONENT

SPECIES PARASITOLOGY

specialty	211 Veterinary medicine	obligation of discipline	selective
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 acquire theoretical and practical knowledge in the diagnosis, treatment and prevention of parasitic diseases of animals, gaining practical skills in carrying out antiparasitic measures in livestock farms and preparing undergraduate 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): 14 hours of lectures, 14 hours of laboratory classes;62 hours of independent work, modular control (4 modules); 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	**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

	SC 3 Ability to follow the rules of labor protection, asepsis and 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		diseases, as well as production and technological processes 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 10 To offer and use expedient innovative methods and approaches of the decision of problem situations of a professional origin

STRUCTURE OF THE EDUCATIONAL COMPONENT (DISCIPLINES)

Content module 1. Protozoa, trematozoa and cestozoa, which are rare					
Lecture 1.	Rare protozoan diseases. Theileriosis of ruminants and carnivores. Trypanosomosis of carnivores. Neosporosis, giardiasis, trichomoniasis of carnivores. Borreliosis of pigs.	Practical class (PC) 1	Diagnosis and differential diagnosis: Theileriosis of ruminants and carnivores; carnivore trypanosomiasis; neosporosis, giardiasis, carnivore trichomoniasis and swine borreliosis.	Self-study work	Staining of feces samples according to the Koestler method. Immunofluorescence method (IFM), method (Ensim Link Immune Sorbent Assay (ELISA), modified agglutination test (MAT - modified agglutination test), indirect hemagglutination reaction (IHA), latex agglutination test (LAT - latex agglutination test). Hematological, molecular genetic and immunological methods of diagnosis of rare protozoa
Lecture 2.	Trematodous diseases that are rare. Opisthorchidosis of carnivores (fish): metorchosis, pseudamphistomosis, metagonimosis, alaria, heterophyosis, nanophytosis, paragonimosis.	PC 2	Diagnosis and differential diagnosis of carnivorous (fish-eating) opisthorchidosis: metorchosis, pseudamphistomosis, metagonimosis, alaria, heterophyosis, nanophytosis, paragonimosis.		
Lecture 3.	Cestodosis diseases of animals that are rare. Cysticercosis of small ruminants. Mesocestoidosis of carnivores. Avitelinosis and stileziosis of ruminants. Amoeboteniosis and choanoteniosis of birds	PC 3	Diagnosis and differential diagnosis: cysticercosis of small ruminants; mesocestoidosis of carnivores; Avitelinosis and stileziosis of ruminants; amoeboteniosis and choanoteniosis of birds.		
Content module 2. Nematodes, acaroses and entomoses, which are rare					

Lecture 4.	Rare nematodes. Thelasiosis of horses. Crenosomosis, thelasiosis, dioctophimosis and dracunculosis of carnivores. Hystrichosis of birds.	PC 4	Diagnosis and differential diagnosis: crenosomosis, thelasiosis, dioctophimosis and dracunculosis of carnivores; thelasiosis in horses; hystrichosis of birds	**Self-study work**	Hematological, molecular genetics and immunological methods of diagnosis of rare trematodes Hematological, molecular genetics and immunological methods of diagnosis of rare cestodes Hematological, molecular genetics and immunological methods of diagnosis of rare nematodes. Hematological, molecular genetics and immunological methods of diagnosis of rare acaroses Hematological, molecular genetics and immunological methods of diagnosis of rare entomosis.
Lecture 5.	Rare acanthocephaloses. Corynosomosis of carnivores.	PC 5	Diagnosis and differential diagnosis of corinosomosis in carnivores.		
Lecture 6.	Acaroses, which are rare. Cheiletiosis and listrophorosis of rabbits. Epidermoptosis and syringophillosis of birds.	PC 6	Diagnosis and differential diagnosis: cheiletiosis and listrophorosis of rabbits; epidermoptosis and syringophillosis of birds.		
Lecture 7.	Rare entomoses. Edemagenosis and cephalopinosis of camels, pharyngomyosis of deer, lipoptenosis of deer and roe deer.	PC 7	Diagnosis and differential diagnosis: oedemagenosis and cephalopinosis of camels; pharyngomyosis of deer; lipoptenosis of deer and roe deer.		

BASIC LITERATURE AND METHODOLOGICAL MATERIALS

literature

RECOMMENDED BOOKS

Basic 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

1. Workbook for laboratory classes of educational discipline «Veterinary Parasitology» for students of IV-V years of second master's level in speciality 211 – Veterinary medicine. / Yu.O. Prykhodko, O.V. Nikiforova, O.V. Mazanny, O.V. Fedorova. Kh., 2020. Part III. 68 p.
2. Methodical instructions for the implementation of the course project of the discipline "Veterinary Parasitology" (for students of IV-V courses second master's level in speciality 211 – Veterinary medicine / Yu.O. Prykhodko, O.V. Nikiforova // Kharkiv State Zooveterinary Academy. The Department of Parasitology. – Kh.: EPD KhSZVA, 2020. – 12 c.

EVALUATION SYSTEM (electronic link to regulations)

SYSTEM		POINTS	ACTIVITY TO BE EVALUATED
Final assessment	100 points ECTS (standard)	up to 50	50% of the average grade for the modules
		up to 50	final testing
Modular assessment	100 points total	up to 50	answers to test questions
		up to 20	oral answers in laboratory and practical classes
		up to 30	the result of mastering the block of independent work

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.