SYLLABUS OF THE EDUCATIONAL COMPONENT

EPIZOOTOLOGY AND INFECTIOUS DISEASES OF ANIMALS

Specialty	**Veterinary medicine -211**	**the obligation of discipline**	**Mandatory component**
Field of knowledge	**Veterinary medicine**	**Faculty**	**Veterinary Medicine**
Level of higher education	**Master's degree**	**Department**	**Epizootology and Microbiology**

TEACHER

Savenko Mykola Mykolayovych

Higher education – specialty: veterinary medicine
Academic degree – Candidate of Veterinary Sciences 16. 00. 02 – pathology, morphology, animal oncology
Academic title – Associate Professor of the Department of Epidemiology and Microbiology
Work experience – 43 years
Indicators of professional activity on the course topic:
Co-author of more than 45 methodological instructions for laboratory and practical work on the course "Organization of Veterinary Affairs", "Episootology and Infectious Diseases";
Scientific internship at the National Scientific Center "Institute of Experimental and Clinical Veterinary Medicine", Kharkiv; International sub-qualification, Lublin (Republic of Poland 2023), "Use of Training and Production Units" within the framework of EU/Tempus held at PTC+ Barneveld, Notherland; Free University of Berlin.
Co-author of 6 thematic publications on the organization of veterinary affairs and special epizootology for students of the Faculty of Veterinary Medicine in specialty 211 "Veterinary Medicine";
Participant in scientific and methodological conferences.

telephone	**0686100387**	**e-mail**	msavenko@ukr.net	**distance support**	**Moodle**

GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

Aim	Providing applicants with thorough knowledge, skills and abilities in organizing a scientifically based system of diagnostic and anti-epizootic measures for infectious diseases common to many animal species, and modern methods of veterinary and sanitary treatments.
Format	lectures, practical classes, independent work, individual tasks, laboratory work, teamwork
Scope and forms of control	13 ECTS credits (390 hours): 56 hours of lectures, 104 hours of laboratory and practical classes, 170 hours of independent work; coursework - 30 hours; teaching practice - 30 hours; module control (8 modules); final control - tests, exams.
Teacher requirements	timely completion of laboratory and practical tasks, activity, teamwork
Enrollment conditions	according to the curriculum

COMPLIANCE WITH EDUCATIONAL STANDARDS AND CURRICULUM

Competencies	GC1 Ability to think abstractly, analyze and synthesize GC2 Ability to apply knowledge in practical situations GC7 Ability to conduct research at the appropriate level GC8 Ability to learn and master modern knowledge GC9 Ability to make informed decisions GC10 Ability to communicate with representatives of other professional groups of different levels (with experts in other fields of knowledge/types of economic activity) GC11 Ability to evaluate and ensure the quality of work performed SC6 Ability to select, pack, fix and send samples of biological material for laboratory research SC7 Ability to organize and conduct laboratory and special diagnostic studies and analyze their results SC8 Ability to plan, organize and implement measures to treat animals of different classes and species, sick with non-communicable, infectious and invasive diseases SC13 Ability to develop strategies for the prevention of diseases of various etiologies.	**Program learning outcomes**	PLO 1 Know and correctly use the terminology of veterinary medicine. PLO 2 Use information from domestic and foreign sources to develop diagnostic, therapeutic and business strategies. 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 treating animals, prevention of infectious and non-infectious diseases, as well as production and technological processes at enterprises for keeping, breeding or operating animals of various classes and species. PLO 9 Develop measures aimed at protecting the population from diseases common to animals and humans. PLO 19 Carry out educational activities among industry workers and the population.

STRUCTURE OF THE EDUCATIONAL COMPONENT

Chapter 1.

Epizootic process and system of anti-epizootic measures.

Study of types of infections depending on the ways of penetration of the pathogen into the body. Studies the patterns of development of the epizootic process and the stages of epizootics, elements of the epizootic process, laws and categories of epizootology. System of anti-epizootic measures, its general features and meaning, the concept of general and specific prevention of infectious diseases, the complexity of carrying out health measures and the choice of the leading chain, types and objects of disinfection.

Lecture 1-2	The concept of the epizootic process	**Laboratory and practical lesson 1**	Safety precautions when working with infectious animals. Rules for the selection and shipment of material for laboratory research.	Independent work	1. Make a presentation on the topic "Infection and the infectious process. Natural foci of infectious diseases". 2. Make a presentation on the topic "Veterinary disinfection in livestock complexes". 3. Make a presentation on the topic "Veterinary disinfection in poultry farms".
Lecture 3	General principles of prevention and elimination of infectious diseases	**LPL 2**	Biological drugs in veterinary medicine.		
		LPL 3	Veterinary disinfection.		
		LPL 4	Means for disinfection of environmental objects.		
		LPL 5	Disinfection quality control methods.		
		LPL 6	Features of diagnostics of infectious diseases of animals.		
Chapter 2. **Bacterial diseases common to different animal species** **Studies the etiology, epizootological features, pathogenesis, clinical and pathological signs, diagnostics, prevention and measures to combat infectious diseases: anthrax, tuberculosis, brucellosis, necrobacteriosis, pasteurellosis, leptospirosis, dermatomycoses, chlamydiosis, listeriosis.**					
Lecture 1	Anthrax	**LPL 1**	Anthrax diagnostics. Measures for prevention and control of the disease.	Independent work	1. Develop a plan for health measures in a farm that is unfavorable for sheep anthrax. 2. Develop a plan for health measures in a farm that is unfavorable for cattle leptospirosis. 3. Develop a plan for health measures in a farm that is unfavorable for cattle tuberculosis.
Lecture 2	Tuberculosis	**LPL 3**	Diagnosis of animal tuberculosis. Measures for prevention and control of the disease.		
Lecture 3-4	Brucellosis Leptospirosis	**LPL 4**	Diagnosis and differential diagnosis of leptospirosis in animals		
		LPL 5	Chlamydia diagnostics and organization of preventive and health-improving measures		
		LPL 6	Diagnosis of necrobacteriosis and measures to prevent and combat the disease		
		LPL 7	Diagnosis of pasteurellosis and measures to prevent and control the disease		
		LPL 8	Diagnosis of listeriosis and organization of preventive and health measures		
		LPL 9	Diagnosis of tetanus and botulism, measures for prevention and control of diseases		
Chapter 3. **Viral diseases common to different animal species** **Studies the etiology, epizootological features, pathogenesis, clinical and pathological signs, diagnostics, prevention and measures to combat infectious diseases: rabies, Aujeszky's disease, smallpox, foot-and-mouth disease, leukemia**					
Lecture 1	Rabies	**LPL 1**	Rabies diagnostics, prevention and control measures	Independent work	1. Develop a plan for the elimination of rabies for a disadvantaged territorial community in rural areas
		LPL 2	Diagnosis of Aujeszky's disease, measures to		

			prevent and combat the disease		2. Develop a plan for the prevention of rabies in wild carnivores for forestry 3. Develop a plan for preventive measures to prevent foot-and-mouth disease 4. Develop a plan for health measures in a farm disadvantaged in terms of bovine leukemia
Lecture 2	Aujeszky's disease	**LPL 3**	Diagnosis of bovine leukemia. Measures for prevention and control of the disease		
		LPL 4	Diagnosis of animal pox. Measures for prevention and control of the disease		
Lecture 3	Leukosis	**LPL 5**	Diagnosis of foot-and-mouth disease. Measures for prevention and control of the disease		
Chapter 4. **Infectious diseases of pigs** **Etiology, epizootological features, clinical signs, pathological changes, diagnostics, differential diagnostics, immunity, means of combating infectious diseases of pigs: CSF, ASF, erysipelas, Teschen disease.**					
Lecture 1	Classical swine fever	**LPL 1**	Diagnosis of CSF in pigs. Measures for prevention and control of the disease	CaIndependent work	1. To draw up a scheme of differential laboratory diagnostics of infectious diseases with vesicular syndrome in pigs 2. To draw up a scheme of differential laboratory diagnostics of infectious diseases with respiratory syndrome in pigs 3. To draw up a scheme of differential laboratory diagnostics of infectious diseases with diarrheal syndrome in pigs 4. To draw up a scheme of differential laboratory diagnostics of infectious diseases for pigs accompanied by abortions 5. To draw up a scheme of differential laboratory diagnostics of infectious diseases with hemorrhagic syndrome in pigs 6. Make a presentation on the topic "Plan of health measures in a farm affected by atrophic rhinitis in pigs"
Lecture 2	African swine fever	**LPL2**	Diagnosis of swine erysipelas. Measures for prevention and control of the disease		
Lecture 3	Teschen disease	**LPL 3**	Differential diagnosis of diseases of pigs with hemorrhagic syndrome. Measures for prevention and control of diseases.		
Lecture 4	Porcine reproductive and respiratory syndrome	**LPL 4**	Diagnosis of viral transmissible gastroenteritis of pigs. Measures for prevention and control of the disease		
		LPL 5	Diagnosis of swine dysentery. Measures for prevention and control of the disease		
		LPL 6	Diagnosis of swine epidemic diarrhea. Measures for prevention and control of the disease		
		LPL 7	Differential diagnosis of swine hemophilia. Disease prevention and control measures		
		LPL 8	Differential diagnosis of diseases of pigs with vesicular syndrome. Measures for prevention and control of diseases		
		LPL 9	Diagnosis of CVID. Measures for prevention and control of the disease		
	Chapter 5. **Infectious diseases of young farm animals.** **Study of etiology, epizootological features, pathogenesis, clinical and pathological signs, diagnostics, prevention and measures to combat infectious diseases of young farm animals such as colibacillosis, salmonellosis, streptococcosis, colienterotoxemia, anaerobic enterotoxemia, and rotavirus infections of calves.**				

Lecture 1	Salmonellosis of young farm animals	**LPL 1**	Diagnosis, control and prevention measures for salmonellosis in young farm animals	Independent work	1. Develop a plan of health measures for a farm that is unfavorable for bacterial gastroenteritis in pig farming 2. Develop a plan of health measures for a farm that is unfavorable for infectious respiratory diseases in calves 3. Develop a plan of health measures for a farm that is unfavorable for bacterial diseases in lambs
		LPL 2	Diagnosis, control and prevention measures for colibacillosis in young farm animals		
Lecture 2	Colibacillosis of young farm animals	**LPL 3**	Diagnosis, control and prevention measures for streptococcus in young farm animals		
Lecture 3	Viral enteritis of calves and piglets	**LPL 4-5**	Diagnostics, measures to combat and prevent colienterotoxemia in young farm animals Diagnostics, control and prevention measures for anaerobic enterotoxemia in young farm animals		
	Chapter 6. **Infectious diseases of cattle.** **Study of the etiology, epizootological features, pathogenesis, clinical and pathological signs, diagnostics, prevention and measures to combat infectious diseases of cattle such as emkar, malignant edema, IRT, parainfluenza, viral diarrhea, rinderpest, lumpy dermatitis, paratuberculosis.** **Study of the etiology, epizootological features, pathogenesis, clinical and pathological signs, diagnostics, prevention and measures to combat infectious diseases of small cattle such as bradsot, infectious enterotoxemia, bluetongue, infectious agalactia, ecthyma contagion, hoof rot, visna-maedi.**				
Lecture 1	Emphysematous carbuncle	**LPL 1**	Diagnosis, control and prevention measures for ruminant clostridial diseases	Independent work	1. Develop a plan of preventive measures for transboundary infections of cattle 2. Develop a plan of preventive measures for the prevention of quarantine infections of small cattle 3. Develop a scheme of differential laboratory diagnostics of infectious diseases with vesicular syndrome in cattle 4. Develop a scheme of differential diagnostics of infectious diseases, accompanied by abortions in sheep 5. Develop a plan of health measures for pneumoenteritis in cattle for a disadvantaged farm
Lecture 2	Infectious rhinotracheitis-pustular vulvovaginitis of cattle	**LPL 2**	Diagnostics, control and prevention measures for infectious bovine rhinotracheitis, parainfluenza and bovine viral diarrhea		
Lecture 3 **Lecture 4**	Campylobacteriosis Prion infections in cattle	**LPL 3**	Diagnosis, control and prevention measures for infectious agalactia of sheep and goats and contagious ecthyma		
		LPL 4	Diagnosis, control and prevention measures for lumpy dermatitis and hoof rot		
		LPL 5	Diagnostics, measures to combat and prevent visna, maeda		
		LPL 6	Diagnosis, control and prevention measures for paratuberculosis		
		LPL 7	Diagnosis, control and prevention measures for malignant catarrhal fever		
		LPL 8	Diagnosis, control and prevention measures for contagious pleuropneumonia of cattle		
		LPL 9	Diagnostics, control and prevention measures for rinderpest		
		LPL10	Diagnosis, control and prevention measures for bluetongue		
Chapter 7.					

Infectious diseases of horses

Study of etiology, epizootological features, pathogenesis, clinical and pathological signs, methods of laboratory diagnostics, prevention and measures to combat infectious diseases of horses such as glanders, mycosis, epizootic lymphangitis, infectious anemia, rhinopneumonia, equine influenza, infectious encephalomyelitis.

Lecture 1	Glanders	**LPL 1-2**	Diagnosis, control and prevention measures for glanders Diagnosis, control and prevention measures for strangles (also called equine distemper)	Independent work	1. Develop a plan of health measures for a horse farm that is unfavorable for respiratory diseases in horses. 2. Develop a plan of health measures for an equestrian school that is unfavorable for bacterial diseases in foals
Lecture 2	Equine infectious anemia	**LPL 3-4**	Diagnosis, control and prevention measures for epizootic lymphangitis Diagnosis, control and prevention measures for equine infectious anemia		
		LPL 5-6	Diagnosis, control and prevention measures for rhinopneumonia and equine influenza Diagnosis, control and prevention measures for equine infectious encephalomyelitis		
		LPL 7	Diagnosis, control and prevention measures for infectious metritis in mares		

Chapter 8.

Infectious diseases of poultry

Study of etiology, epizootological features, pathogenesis, clinical and pathological signs, methods of laboratory diagnostics, prevention and measures to combat infectious quarantine, respiratory, immunodeficiency diseases of poultry

Lecture 1	Newcastle disease	**LPL 1**	Diagnosis, control and prevention measures for avian influenza		1. Develop a plan of preventive measures for transboundary poultry infections 2. Develop a plan of preventive measures for preventing quarantine poultry infections 3. Develop a scheme for differential laboratory diagnostics of infectious respiratory diseases of poultry 4. Develop a scheme for differential diagnostics of infectious diseases accompanied by immunodeficiencies in poultry 5. Develop a plan of health measures for an unsuccessful poultry enterprise regarding salmonellosis
Lecture 2	Infectious bronchitis in chickens	**LPL 2**	Diagnosis, control and prevention measures for infectious laryngotracheitis in poultry		
Lecture 3-4	Gumboro's disease Marek's disease	**LPL 3**	Diagnosis, control and prevention measures for respiratory mycoplasmosis and pasteurellosis		
Lecture 5	Infectious avian encephalomyelitis	**LPL 4**	Diagnosis, control and prevention measures for avian reovirus infection and chicken infectious anemia		
		LPL 5	Diagnosis, control and prevention measures for Egg drop syndrome '76		
		LPL 6	Diagnostics, control and prevention measures for viral enteritis of goslings and viral hepatitis of ducklings		
		LPL 7	Diagnosis, control and prevention measures for poultry salmonellosis and colibacillosis		
		LPL 8	Diagnosis, control and prevention measures for aspergillosis and ornithosis		

BASIC LITERATURE AND METHODOLOGICAL MATERIALS

Literature	1. Karysheva A. F. Special epizootology: textbook. Kyiv: Higher Education, 2002. 703 p. 2. General epizootology: textbook / B. M. Yarchuk et al.; ed. B. M. Yarchuk, L. E. Kornienko. Bila Tserkva, 2002. 656 p. 3. V. Nedosekov, M. Sytyuk, L. Kornienko, A. Gontar, N. Sorokina, R. Severyn. Viral diseases of pigs: electronic manual. Kyiv: Scientific and Methodological Center of the VFPO, 2020. https://vukladach.pp.ua/MyWeb/manual/wetmed/virysni_xvor_svuney/Golovna/Golovna.htm 4. V. Nedosekov, M. Sytyuk, L. Kornienko, A. Gontar, N. Sorokina, R. Severyn. Bacterial diseases of pigs: electronic manual. Kyiv: Scientific and Methodological Center of the VFPO, 2020. https://vukladach.pp.ua/MyWeb/manual/wetmed/bakter_xvor_svuney/Bakteriihvorobusvuney/golovna/Golovna.htm 5. Infectious diseases of sheep and goats: a textbook / O. A. Tkachenko et al. Zhytomyr: Polissya, 2012. 372 p. 6. Factor diseases of agricultural animals monograph / V. P. Lytvyn et al.; ed. V. P. Lytvyn, L. E. Kornienko. Bila Tserkva, 2002. 368 p. 7. Legislation of Ukraine on veterinary medicine / ed. P. P. Dostoevsky and V. I. Khomenko. Kyiv: Urozhay, 1999. 592 p. 8. Nedosekov V., Gontar A., Severyn R., Sorokina N., Electronic manual Anaerobic infections of cattle. Scientific and methodological center of the VFPO, Kyiv, 2022. 98 p. 9. Infectious diseases of animals with vesicular syndrome: Textbook / L.E. Kornienko, V.O. Busol, V.V. Nedosekov et al. – Ed. L.E. Kornienko. – Bila Tserkva: Bila Tserkva. State Agrarian University, 2011. – 272 p. 10. Sapronose infectious diseases of animals / L.E. Kornienko, V.V. Nedosekov, V.O. Busol et al.: monograph. – Ed. L.E. Kornienko, V.O. Busola. – Bila Tserkva: Bila Tserkva. State Agricultural University, 2010. -306 p. 11. Chronic infectious diseases of animals / L.E. Kornienko, V.O. Busola, V.V. Nedosekov and others; Edited by V.O. Busola, L.E. Kornienko. – Bila Tserkva, 2009. – 291 p. 12. Problems of infectious diseases of animals: Monograph / edited by V.A. Sinitsyn. – Nizhyn: Publisher PP Lysenko MM, 2015 – 544 p. 13. Transboundary diseases of animals with the basics of stamping-out: Textbook / V.V. Nedosekov, V.V. Melnyk, V.V. Makarov. – Kherson: Grin DS, 2015. – 336 p. 14. Infectious diseases of poultry / L.E. Kornienko, L.I. Nalyvaiko, V.V. Nedosekov and others; Edited by L.E. Kornienko. – Kherson: Grin DS., 2012. – 528 p. 15. Pathomorphology of infectious diseases of poultry: atlas / M.V. Skrypka, I.I. Panikar, M.M. Broshkov, L.O. Tarasenko. - Odesa, 2019. – 76 p. 16. Nedosekov V., Gontar A., Sorokina N., Melnyk V., Galatyuk O. Infectious diseases of horses: a textbook. Kyiv: Scientific and Methodological Center of the VFPO, 2022. 141 p. https://drive.google.com/file/d/1Roh5rxzSMyM37miuUoVCbE99-JrQFpMq/view (Ukraine	**Methodological support**	1. Golovko V. O., Severyn R. V., Ivanchenko I. M., Gontar A. M. Epizootic process: methodological guidelines for conducting LPZ in general epizootology for students of the 3rd-4th years of the Faculty of Veterinary Medicine. Kharkiv: KhDZVA, 2021. 28 p. 2. Golovko V. O., Severyn R. V., Ivanchenko I. M., Gontar A. M. General principles of prevention and elimination of infectious diseases: methodological guidelines for conducting LPZ in general epizootology for students of the 3rd-4th years of the Faculty of Veterinary Medicine. Kharkiv: KhDZVA, 2022. 24 p. 3. Golovko V. O., Severyn R. V., Ivanchenko I. M., Gontar A. M. Diagnostics, differential diagnostics, organization of measures to prevent and combat bacterial diseases of animals: methodological guidelines for conducting laboratory classes in special epizootology for students of the 3rd-4th years of the Faculty of Veterinary Medicine. Kharkiv: KhDZVA, 2021. 35 p. 4. Severyn R. V., Ivanchenko I. M., Gontar A. M. Diagnostics, differential diagnostics, organization of measures to prevent and combat viral diseases of animals: methodological guidelines for conducting laboratory and practical classes in special epizootology for students of the 3rd-4th years of the Faculty of Veterinary Medicine. Kharkiv: KhDZVA, 2022. 37 p. 5. Severyn R. V., Gontar A. M. Infectious diseases of pigs: methodological guidelines for conducting laboratory classes in special epizootology for students of the 3rd-5th years of the Faculty of Veterinary Medicine. Kharkiv: KhDZVA, 2021. 44 p. 6. Golovko V. O., Severyn R. V., Gontar A. M., Ivanchenko I. M. Infectious diseases of young farm animals: methodological instructions for conducting laboratory and practical classes in special epizootology for students of the 3rd-5th years of the Faculty of Veterinary Medicine. Kharkiv: DBTU, 2023. 36 p. 7. Severyn R. V., Gontar A. M., Ivanchenko I. M. Anaerobic infections of cattle: methodological instructions for conducting laboratory and practical classes in special epizootology for students of the 3rd-5th years of the Faculty of Veterinary Medicine. Kharkiv: DBTU, 2023. 46 p. 8. Golovko V. O., Severyn R. V., Gontar A. M., Ivanchenko I. M. Pneumoenteritis of calves: diagnostics, treatment, prevention, control measures: methodological instructions for conducting laboratory and practical classes in special epizootology for students of the 3rd-5th years of the Faculty of Veterinary Medicine. Kharkiv: DBTU, 2022. 56 p. 9. Methodological instructions for students of the Faculty of Veterinary Medicine for performing an individual educational and research task in the academic discipline "Epizootology and infectious diseases". Anaerobic infections of ruminants. Specialty 211- Veterinary medicine. Golovko V.O., Severyn R.V., Gontar A.M. State Biotechnological University. Department of Epizootology and Microbiology. Kh.: RVV DBTU, 2023. 58 p. 10. Golovko V. O., Severyn R.V., Gontar A.M., Ivanchenko I.M. Viral diseases of poultry: methodological instructions for conducting laboratory and practical classes in special epizootology for students of the 3rd-5th years of the Faculty of Veterinary Medicine. Kharkiv: DBTU, 2023. 36 p. 11. Severyn R. V., Gontar A. M., Ivanchenko I. M. Bacterial diseases of waterfowl: methodological instructions for conducting laboratory and practical classes in special epizootology for students of the 3rd-5th years of the Faculty of Veterinary Medicine. Kharkiv: DBTU, 2023. 46 p. 12. Golovko V. O., Severyn R. V., Gontar A. M., Ivanchenko I. M. Viral diseases of young waterfowl: methodological instructions for conducting laboratory and practical classes in special epizootology for students of the 3rd-5th years of the Faculty of Veterinary Medicine. Kharkiv: DBTU, 2022. 56 p.

GRADING SYSTEM

SYSTEM		POINTS	ACTIVITY THAT IS ASSESSED
Summative assessment (differentiated test, exam) Section evaluation	100 ECTS points (standard) 100-point total	to 100	40 % - final testing 60 % - student's current work during the semester
		to 30	answers to test questions
NORMS OF ACADEMIC ETHICS AND INTEGRITY		to 30	result of mastering the independent work block
		to 40	student activity in classes (oral answers)

All participants in the educational process (including students) must adhere to the code of academic integrity and the requirements stipulated in the regulation "On Academic Integrity of Participants in the Educational Process of DBTU": to demonstrate discipline, good manners, respect each other's dignity, show kindness, honesty, and responsibility.