



СИЛАБУС ДИСЦИПЛІНИ
«EPIZOOTOLOGY AND INFECTIOUS DISEASES
(ЕПІЗООТОЛОГІЯ ТА ІНФЕКЦІЙНІ ХВОРОБИ)»

Ступінь вищої освіти – Магістр
Спеціальність **211 Ветеринарна медицина**
Освітня програма _____
Рік навчання 4, семестр 8, 9, 10
Форма навчання денна (денна, заочна)
Кількість кредитів ЄКТС 8,5
Мова викладання (українська, англійська, німецька)

Лектор курсу
Контактна інформація
лектора (e-mail)
Сторінка курсу в eLearn

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DESCRIPTION OF THE COURSE

(up to 1000 printed characters)

The latest requirements for the preservation of animals, in particular young animals, to improve their productivity and quality of livestock products, environmental protection requires radical changes in the training of veterinarians, good knowledge of animal diseases. This is especially true of infectious diseases, as we now know more than 500 and new diseases appear every year. Of the 500 infectious diseases, half belong to zoonoses, ie diseases common to animals and humans. The study and knowledge of these diseases should be mandatory for a veterinarian.

The purpose of teaching epizootiology is to teach students the theoretical and methodological foundations of infectious and epizootic processes, patterns that underlie the development of infectious diseases, mastering the methods of diagnosing infectious diseases of bacterial, viral, and fungal nature, skills of scientifically sound planning, organization and implementation of anti-epizootic measures.

COURSE STRUCTURE

| Topic | Hours (lectures/labs) | Study results | Tasks | Evaluation |
|---|--------------------------|---|--|------------|
| 1 семестр календарного плану* (8 навчальний семестр) | | | | |
| Module 1. The doctrine of the infectious process. Epizootic process and its driving forces | | | | |
| Topic 1. Introduction to epizootology | 2/0 | <u>Know</u> the history of epizootology as a science. Subject and methods of epizootology. Epizootological aspects of the doctrine of infection. Infectious process and forms of its manifestation. | Writing an abstract in case of missing a lecture | |

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| | | <u>Understand</u> the connection between epizootology and other sciences. Relationships of micro- and macroorganisms | | |
| Topic 2. The doctrine of infection and the infectious process (part 1) | 2/0 | <u>To Know</u> the influence of environmental factors on the development and manifestation of the infectious process. Infectious disease and forms of its manifestation. The value of the macroorganism in the development and manifestation of the infectious process. Nonspecific (natural) resistance and specific immunity. Immunodeficiency. <u>To Distinguish</u> between types of infections. Understand the difference between an infectious process and an infectious disease. | Writing an abstract in case of missing a lecture | |
| Topic 3. Epizootic process. (part 1) | 2/0 | <u>To Know</u> the essence of the epizootic process. Epizootic chain and its links: the source of the pathogen, the reservoir of the pathogen, the mechanism of transmission of the pathogen, susceptible animals. Driving forces of the epizootic process. Mechanism, factors and ways of transmission of infectious diseases. | Writing an abstract in case of missing a lecture | |
| Topic 4. Epizootic process. (part 4) | 2/0 | <u>To Know</u> the influence of climatic, meteorological, geographical and other natural conditions, as well as socio-economic factors on the occurrence and manifestation of epizootics. Seasonality and frequency of epizootics. The concept of horizontal and vertical transmission of the pathogen. | Writing an abstract in case of missing a lecture | |
| Topic 5. Epizootic process. (part 2) | 2/0 | <u>To Know</u> Susceptible animals. Individual and group predisposition of animals to diseases. The value of animal predisposition in the epizootic process. Dynamics of epizootics and characteristics of its main stages. Peculiarities of epizootic manifestation in closed (isolated) and open (non-isolated) herd of animals. Epizootic and natural focus of infectious diseases. <u>To Understand</u> the concept of epizootic outbreak, disadvantage and threat zone. Types of epizootic foci. The doctrine of the natural focus of infectious diseases. The concept of regional epizootology and epizootological geography, their connection with the issue of ecology. <u>To Distinguish</u> Forms of manifestation of the epizootic process: sporadic, enzootic, panzootic. Types of epizootic foci. | | |
| Topic 6. Veterinary and veterinary-sanitary facilities. The role of laboratory diagnostic tests. | 0/2 | <u>To Know</u> Veterinary and veterinary facilities. Acquaintance with the infectious disease clinic and isolator, their mode of operation. The role of laboratory diagnostic tests in infectious diseases of animals. <u>Be able to</u> Organize and conduct blood sampling in different species of animals for diagnostic tests. Understand the role of laboratory diagnostic tests in infectious diseases of animals. | Essay writing. Take blood from different species of animals and document it. | |
| Topic 7. Rules and techniques of taking and sending pathological material | 0/2 | <u>To Know</u> the Rules and techniques of taking and sending pathological material for laboratory tests. Rules of clinical examination of an infectious animal. Rules of personal prevention and safety. <u>Be able to</u> select, preserve, package various types of pathological material and draw up accompanying documents for it. | Essay writing. Select pathological material, prepare canning solutions, package and send the material to the laboratory. Write an accompanying document. | |
| Topic 8. Allergic research. Vaccination and their technique | 0/2 | <u>To Know</u> the technique and methods of conducting allergic studies of animals with simultaneous clinical examination. Organization of vaccinations. | Know the structure of the | |

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| | | <p><u>Be able to</u> conduct a clinical examination of animals. Conduct allergic tests.</p> <p><u>To Use</u> needle-free injectors for allergy testing. Read the reactions. Use devices and devices for administration of vaccines and sera.</p> | <p>needleless injector and the rules of working with it. to work out methods of carrying out allergic diagnostics at various animals. Work out different ways of administering vaccines and draw up an act for vaccination of animals</p> | |
| Writing a module | | | The written work | 0-100 |
| Module 2. System of anti-epizootic measures | | | | |
| Topic 1. Nomenclature and principles of classification of infectious diseases | 2/0 | <p><u>To Know</u> the nomenclature and principles of classification of infectious diseases. Zoonoses, zoonooses, anthroozoonoses. Laws and categories of epizootology. Evolutionary and ecological aspects of infectious animal diseases. Intensive and extensive indicators of the degree of intensity of the epizootic process.</p> | Writing an abstract in case of missing a lecture | |
| Topic 2. Fundamentals of epizootological analysis. GIS TECHNOLOGY forecasting | 2/0 | <p><u>To Know</u> the phenomena of the population level in epizootology. Fundamentals of epizootological analysis. The main tasks and principles of anti-epizootic measures. <u>Be able to</u> predict epizootics and their modeling. General and special prevention of infectious diseases. Features of general anti-epizootic measures in infectious diseases.</p> | Writing an abstract in case of missing a lecture | |
| Topic 3. Therapy and general and special prevention of infectious diseases | | <p><u>To Know</u> Therapy and treatment and prevention of infectious diseases of animals. Measures and methods of individual and group nonspecific and specific therapy. General and special prevention of infectious diseases. Features of general anti-epizootic measures in infectious diseases. Disinfection, disinsection and deratization, their place and significance in the complex of anti-epizootic measures. Characteristics of disinfectants and techniques for disinfection of various objects. Safety rules. Ways to control the effectiveness of disinfection.</p> | Writing an abstract in case of missing a lecture | |
| Topic 4. Biosecurity and biosafety | 2/0 | <p><u>To Know</u> what biosecurity and biosafety are. What is the difference between them. Features of biosecurity and biosafety on livestock complexes.</p> <p><u>To Analyze</u> OIE reports on particularly dangerous cross-border and emergent diseases.</p> | Writing an abstract in case of missing a lecture | |
| Topic 5. Epizootological examination of the farm | 0/2 | <p><u>To know</u> the Methodology of carrying out epizootological inspection. Methods of introducing epizootological journals and maps.</p> <p><u>Be able to</u> conduct an epidemiological examination. Keep epizootological journals and compile and maintain an epizootic map.</p> | Drawing up an act of epizootological examination and epizootic maps | |

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| Topic 6. General acquaintance with biological products | 0/2 | <u>To Know</u> the classification of biologicals, their manufacture and methods of application. <u>Be able to</u> use biological products and dispose of their residues | Writing essays on different types of biological products and methods of their manufacture. Drawing up an act of culling biological products. | |
| Topic 7. Disinfection | 0/2 | <u>To Know</u> what disinfection is and its importance for the prevention and elimination of infectious animal diseases. Types and objects of disinfection. Methods and means of disinfection. Devices and machines for disinfection of various objects. <u>Be able to</u> calculate the area, volume of the disinfectant and the amount of substance to make the solution. <u>To Understand</u> why disinfection is performed. <u>To Apply</u> different methods and techniques of disinfection. <u>To Use</u> disinfection devices | Tasks solving Writing essays, making presentations | |
| Topic 8. Disinsection and deratization | 0/2 | Know what is disinsection and deratization and their importance for the prevention and elimination of infectious diseases of animals. Types and objects of disinsection and deratization. Methods and means of disinsection and deratization. Devices and machines for disinsection and deratization of various objects. Be able to calculate the area, volume of the object of disinsection and deratization and the amount of substance for making the solution. Understand why disinsection and deratization are carried out. Apply different methods and methods of disinfection. Use devices for disinsection and deratization. | Tasks solving Writing essays, making presentations | |
| Writing module | | | The written work | 0-100 |
| Module 3. Infectious diseases common to several species of animals | | | | |
| Anthrax. | 2/0 | <u>To Know</u> Based on the qualifications of a veterinarian, the student must have knowledge of the main infectious diseases of farm animals, birds, fur animals, bees and other animals: Determination of the pathogen. Economic losses. The life cycle of the pathogen, its resistance in the environment, resistance to disinfectants. Epizootological data. Pathogenesis. Clinical symptoms of the disease. Pathological changes. Diagnosis. Differential diagnosis. Treatment. Prevention. Health-improving measures in farms of different directions. <u>Be able to:</u> Determine the epizootiology of the disease: susceptibility to the pathogen of certain species of animals and humans, the influence of age, sex and breed on susceptibility; sources and reservoir of the pathogen; mechanism and factors of pathogen transmission; ways of infection; | Writing an essay on the OIE report on a specific disease. Writing essays, making presentations | |
| Tuberculosis. | 2/0 | | | |
| Brucellosis. | 2/0 | | | |
| Rabies. | 2/0 | | | |
| Leptospirosis. | 2/0 | | | |
| Trichophytia. Microsporia. | 2/0 | | | |
| Tetanus. Botulism. Anthrax. | 0/2 | | | |
| Pseudotuberculosis. Paratuberculosis. Tuberculosis. | 2/2 | | | |
| Pasteurellosis. Chlamydia. Listeriosis. Brucellosis. | 0/2 | | | |

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| foot-and-mouth disease of cattle Tularemia. Smallpox. Leptospirosis. | 0/2 | ways of entry and spread of the pathogen; features of the epizootic process (contagiousness, seasonality, periodicity, morbidity, lethality, stationarity and other indicators); the influence of the external environment, natural - geographical and socio- economic factors on the intensity of the epizootological process. | | |
| Rabies. Aujeszky's disease. Trichophytia. Microsporia. | 0/2 | | | |
| Writing module | | | The writing work | 0-100 |
| Total 1 semester | | | | 70** |
| Final Test | | | | 30 |
| * Note. Conducting types of classes is carried out in accordance with the schedule of the educational process | | | | |
| ** Rating on educational work: $R_{HP} = 0,70 \times R(1)_{OM} \times R(2)_{OM} \times R(3)_{OM} \times R(4)_{OM} + R_{DP} - R_{III TP}$ | | | | |
| *** To determine the rating of the student (listener) for mastering the discipline RDIS (up to 100 points) the obtained rating for certification (up to 30 points) is added to the rating of the student (listener) for academic work PHP (up to 70 points): + R AT | | | | |

EVALUATION POLICY

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| <i>Deadline and Recompilation Policy:</i> | <p>The main principles of classes include:</p> <ol style="list-style-type: none"> 1. Openness to new ideas, tolerance, friendly partnership atmosphere of mutual understanding and the possibility of creative development; 2. All tasks provided by the program must be completed in a timely manner; 3. Various models of work in the classroom, will give graduates the opportunity to discover their own potential, learn to trust their partners, to develop skills of intellectual work in a team; 4. Intensive use of mobile learning technologies is provided, which allows higher education students and teachers to communicate with each other at any time convenient for them, and higher education students who are absent from classes, get the necessary educational information and present completed tasks; 5. During the training the skills of applicants are actively developed and maintained, who can prepare additional information on a topic that is not included in the list of topics of laboratory classes of content modules and make a presentation and informing the audience in addition; 6. Works that are submitted in violation of deadlines without good reason are evaluated at a lower grade. Rearrangement of modules takes place with the permission of the lecturer if there are good reasons (for example, hospital); 7. If the applicant is absent for a good reason, he / she must present the tasks performed independently during the independent training and consultation of the teacher at the time allotted for training with the researcher according to the schedule of consultations. |
| <i>Academic Integrity Policy:</i> | Write-offs during tests and exams are prohibited (including using mobile devices). Course papers, abstracts must have correct text references to the literature used |
| <i>Attendance Policy:</i> | Attendance is mandatory. For objective reasons (for example, illness, international internship) training can take place individually (in online form in consultation with the dean of the faculty) |

EVALUATION RATES

| Total points for all kinds of learning activities | Evaluation on the national scale | |
|---|----------------------------------|-------------------|
| | For examination | For credit (test) |
| 90-100 | perfectly | accepted |
| 74-89 | good | |
| 60-73 | satisfactorily | |
| 0-59 | Unsatisfactory | not accepted |