



SYLLABUS OF AN ACADEMIC DISCIPLINE «FOOD HYGIENE»

Academic degree - Masters

Specialty 211 Veterinary Medicine

Academic programme « Veterinary Medicine»

Year of study 4, 5, semester 8,9

Form of study full time

Number of ECTS credits 5

Language(s) of instruction English

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ACADEMIC DISCIPLINE DESCRIPTION

The course "Food Hygiene" is a special cycle discipline in veterinary professionals training. According to the Law of Ukraine "On Veterinary Medicine" primary purpose of teaching is to form in veterinarians knowledge of sanitary measures and clear issues of hygiene testings and safety of food and raw materials of animal origin during their production (private sector, collective farms, etc.), at all stages of processing (meat, dairy, poultry, and fish plants) and during transport, storage and sale, following the implementation of existing veterinary and sanitary measures.

Food Hygiene as a discipline on the one hand, is fundamental that studies the material basis related to the quality and safety of food and raw materials of animal and vegetable origin, processes that take place in these products, their causes, mechanisms and mechanics of the origin and development; on the other hand - applied, which examines the quality and safety of products and raw materials of animal origin, including various methods. According to the Law of Ukraine "On veterinary medicine" doctor of veterinary medicine has legal and financial responsibility for the implementation of production in only benign, safe in respect of sanitary products.

Competences of the discipline:

integral competence (IC):

the ability to solve complex tasks and problems in the field of veterinary medicine, which involves conducting research and/or implementing innovations and is characterized by the uncertainty of conditions and requirements.

general competences (GC): GC 3. knowledge and understanding of the subject field and profession. GC 7. Ability to conduct research at the appropriate level. GC 9. Ability to make informed decisions.

professional (special) competences (SC): SC 4. The ability to conduct clinical research with the aim of formulating conclusions about the condition of animals or establishing a diagnosis. SC 7. Ability to organize and conduct laboratory and special diagnostic studies and analyze their results. SC 8. Ability to plan, organize and implement measures for the treatment of animals of various classes and species suffering from non-contagious, infectious and invasive diseases. SC 12. Ability to develop and implement measures aimed at protecting the population from diseases common to animals and humans. SC 13. The ability to develop strategies for the prevention of diseases of various etiologies. SC 19. Ability to carry out educational activities among industry workers and the population. SC 20. Ability to organize, implement and control document flow during professional activity.

Program learning outcomes (PLO)

PLO 9. Develop measures aimed at protecting the population from diseases common to animals and humans.

PLO 12. Know the rules and legislative regulations regarding the supervision and control of production, storage, transportation and sale of products of animal and plant origin.

PLO 14. To understand the essence of the processes of production, storage and processing of biological raw materials.

COURSE STRUCTURE

| Topic | Hours (lectures/labs) | Study results | Tasks | Evaluation |
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| 8 семестр | | | | |
| Module 1 | | | | |
| Topic 1. Introduction. General information about “Veterinary hygiene with the basics of technology and standardization of products of animal origin” | 2/0 | To know: milk, dairy products - their chemical composition, biological value and commodity evaluation; requirements of state standards and other regulations on indicators of quality and safety of milk and dairy products; | Delivery of laboratory or work. Writing tests, essays. Performing independent work (including elearn) | 1,7 point |
| Topic 2. Organoleptic and laboratory methods for determining the quality of milk. | 0/4 | | | 1,7 point |
| Topic 3. The chemical composition and | 4/0 | | | 1,7 point |

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| technological properties of milk | | basics of standardization, certification and quality management of dairy products. Be able to: carry out veterinary and sanitary measures aimed at the production of dairy products of appropriate quality; to solve questions of sanitary and hygienic researches and veterinary and sanitary well-being of foodstuff and raw materials of an animal origin to possess | | |
| Topic 4. Requirements for milk according to National Standard ДСТУ 3662-15 | 0/4 | | 1,7 point | |
| Topic 5. Veterinary and sanitary examination and health assessment of milk in case of diseases and poisoning animals. | 2/0 | | 1,7 point | |
| Topic 6. Methods of milk fat content determination. | 0/2 | | 1,7 point | |
| Topic 7. Determination of acidity and dry matter in milk. | 0/2 | | 1,7 point | |

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| Topic 8. Sanitary conditions for obtaining high-quality milk at farms. | 2/0 | modern methods of researches on veterinary examination; have a scientifically sound sanitary assessment of raw materials and products of animal origin. | | 1,7 point |
| Topic 9. Veterinary control of milk quality and dairy products in food markets. | 2/0 | | | 1,7 point |
| Topic 10. Determination of milk proteins and ketones. Milk temperature treatment determination | 0/2 | | | 1,7 point |
| Topic 11. Methods of microbiological investigation of milk. | 0/2 | | | 1,7 point |
| Topic 12. Methods of determining the quality of dairy products and cheeses. | 0/2 | | | 1,7 point |
| Topic 13. Fundamentals of standardization, quality management and certification. | 2/0 | | | 1,7 point |
| Topic 14. Methods of butter testing. | 0/2 | | | 1,7 point |
| Module2 | | | | |
| Topic 15 Veterinary and sanitary examination of honey and other bee products. | 4/0 | To know: fish, eggs, bee products - their chemical composition, biological value and commodity evaluation; requirements of state standards and other regulations on indicators of quality and safety of livestock products; basics of standardization, certification and | Delivery of laboratory or work. Writing tests, essays. Performing independent work (including elearn) | 1,7 point |
| Topic 16 Laboratory methods for determining the quality of honey. | 2/0 | | | 1,7 point |
| Topic 17 Veterinary and sanitary examination of fish and other aquatic organisms. | 4/0 | | | 1,7 point |

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| | | product quality management. Be able to: carry out veterinary and sanitary measures aimed at the production of fish products, eggs, beekeeping products of proper quality; to address issues of sanitary and hygienic research and veterinary and sanitary welfare of food and raw materials of animal origin | | |
| Topic 18 Methods for determining the freshness of the fish. | 0/2 | | | 1,7 point |
| Topic 19 Veterinary and sanitary examination of poultry eggs | 0/2 | | | 1,7 point |
| Topic 20 Veterinary and sanitary examination of plant food | 0/2 | | | 1,7 point |
| SEMESTER 9 | | | | |
| Module3 | | | | |
| Topic 21. Slaughter animals, transportation and identification of fatness categories | 2/0 | To know: determination of the pre-slaughter condition of animals and poultry and their categories of fattening; veterinary and sanitary bases of preparation of animals and poultry for slaughter and technology of their processing. Be able to: have the organization and methodology after slaughter veterinary and sanitary examination of carcasses and organs of slaughter animals, poultry, industrial wild animals at enterprises, laboratories of veterinary | Delivery of laboratory or work. Writing tests, essays. Performing independent work (including elearn). | 1,7 point |
| Topic 22. Requirements for the transport of slaughter animals and supporting documents | 0/2 | | | 1,7 point |
| Topic 23. Premices for processing of slaughtered animals and veterinary and sanitary demands. Acceptance of slaughtered animals. | 2/0 | | | 1,7 point |
| Topic 24. Research lymph nodes and carcasses of slaughtered animals | 0/2 | | | 1,7 point |

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| Topic 25. The basic technology and hygiene of slaughtered animals and poultry processing | 2/0 | examination of food markets, supermarkets, food industrial refrigerators; have modern research methods for veterinary examination; | | 1,7 point |
| Topic 26. Veterinary-sanitary examination of animal fats | 0/2 | have a scientifically sound sanitary assessment of raw materials and products of animal origin | | 1,7 point |
| Topic 27. Organization and Methods veterinary expertise after slaughter and carcasses of slaughtered animals | 4/0 | | | 1,7 point |
| Topic 28. Methods and techniques of research animal carcasses after slaughter | 0/3 | | | 1,7 point |
| Module 4 | | | | |
| Topic 29. The morphology, chemical composition and characteristics of meat of different animal species | 4/0 | To know: meat and other products of slaughter of animals - their chemical composition, biological value and commodity evaluation. Be able to: carry out veterinary and sanitary measures; to address issues of sanitary and hygienic research and veterinary and sanitary welfare of food and raw materials of animal origin; to have the | Delivery of laboratory or work. Writing tests, essays. Performing independent work (including elearn.) | 1,7 point |
| Topic 30. Determining the species origin of meat | 0/4 | | | 1,7 point |
| Topic 31. Changes in the meat after slaughter | 4/0 | | | 1,7 point |
| Topic 32. Definition of meat freshness | 0/6 | | | 1,7 point |

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| Topic 33. The basic technology of hygiene and preserving of meat and meat products | 4/0 | organization and methods after slaughter veterinary and sanitary examination of carcasses and organs of slaughter animals, poultry, industrial wild animals at enterprises, laboratories of veterinary examination of food markets, supermarkets, food industrial refrigerators; have modern research methods for veterinary examination; have a scientifically sound sanitary assessment of raw materials and products of animal origin | | 1,7 point |
| Topic 34. Veterinary-sanitary examination of sausages and canned meat | 0/4 | | | 1,7 point |

Module 5

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| Topic 35. Meat post mortem examination of in cases of infectious diseases | 4/0 | To know: veterinary and sanitary assessment of products of animal origin for infectious, invasive, non-communicable diseases, poisonings, lesions of radioactive substances; food poisoning and toxicosis of microbial origin and their prevention in the field of veterinary medicine Be able to: carry out veterinary and sanitary measures; to address issues of sanitary and hygienic research | Delivery of laboratory or work. Writing tests, essays. Performing independent work (including elearn.) | 1,7 point |
| Topic 36. Methods for determining the meat from diseased and dead animals | 0/4 | | | 1,7 point |
| Topic 37. Veterinary-sanitary examination of products of slaughter animals with invasive disease | 4/0 | | | 1,7 point |
| Topic 38. Veterinary and sanitary exam of animals slaughter products for trichinosis | 0/4 | | | 1,7 point |

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| Topic 39. Veterinary- sanitary examination of products of slaughter animals with noncontagious disease | 4/0 | and veterinary and sanitary welfare of food and raw materials of animal origin; to have the organization and methods after | | 1,7 point |
| Topic 40. Veterinary and sanitary exam of animals slaughter products for cysticercosis | 0/4 | slaughter veterinary and sanitary examination of carcasses and organs of slaughter animals, poultry, industrial wild animals at enterprises, laboratories of veterinary examination of food markets, supermarkets, food industrial refrigerators; have modern research methods for veterinary examination; have a scientifically sound sanitary assessment of raw materials and products of animal origin. | | 1,7 point |
| Topic 41. Food borne diseases and its prevention | 4/0 | | | 1,7 point |
| Topic 42. Methods for determination of toxic substances in meat | 0/4 | | | 1,7 point |
| Total 8,9 semester | | | | 70 |
| Exam | | | | 30 |
| Total | | | | 100 |

EVALUATION POLICY

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| <i>Deadline and Recompilation Policy:</i> | Entries that fail to meet deadlines without good reason are rated lower. Rearrangement of modules takes place with the permission of the lecturer if there are good reasons (for example, illness). |
| <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 |

RECOMMENDED SOURCES OF INFORMATION

1. Veterinary and sanitary examination of meat and meat products - / Vlasenko VV, KravtsivRJ. , Yakubchak OM, Kasyanchuk VV, Kozak MV, Gavrilyuk MD– Vinnytsia: Edelweiss and K, 2009 - 528 p. / 33 d.a.
2. Guidelines on veterinary and sanitary examination with the basics of technology and standardization of meat and meat products Yakubchak OM, Kozak MV, Vlasenko VV, Oliynyk LV, Zagrebelny VO ., Taran TV, Adamenko LV, Galaburda MA, Bilyk RI
3. The procedure for sampling and identification of samples for veterinary and sanitary control of food and feed Yakubchak OM, Mezhenkaya NA, Tkachuk SA, Bilyk RI
4. Microbiology of milk and dairy products with the basics of veterinary examination. Edited by Kasyanchuk VV
5. Special biochemistry: a textbook for students of higher educational institutions [Edited by the corresponding member of NAAS SD Melnychuk.] Authors: SD Melnychuk, C.B. Khizhnyak, VI Tsvilikhovsky, Grishchenko, VA Tomchuk, EA Derkach, N.M. Melnykova, L.G. Kalachnyuk, G.I. Kalachnyuk, O.M. Tupytska, VA - Kyiv, 2014. - 371 p.
6. Methodical instructions for classes in the discipline "Special Biochemistry" for students of EQL "Master" Part 2: "Pathology of the cellular apparatus. Biochemical ways of influence of exogenous factors on a cell" / S.D. Мельничук, С.В. Khizhnyak, VI Tsvilikhovsky, NM Melnykova, С.А. Corncrake. - Kyiv, 2014. - 129 p.
7. The course of lectures and guidelines for the implementation of the lab. works on the discipline "Special Biochemistry", Part 3: "Fundamentals of methodological approaches to molecular diagnostics" / S.D. Melnychuk, L.G. Kalachnyuk, G.I. Kalachnyuk. - Kyiv, 2014. - 196 p.
8. Methodical instructions for laboratory classes in the discipline "Modern methods and devices of biochemical research" for the training of experts-analysts in the specialization "Laboratory Affairs" EQL "Master" / S.D. Мельничук, С.В. Khizhnyak, VI Tsvilikhovsky - Kyiv, 2014. - 122 p.
9. Bohm R., Pleva V. / Microscopy of meat and raw materials of animal origin. Translated from Czech. Second edition. Publishing house "Food industry", M .: - 1964 - 335p.
10. Kotsyumbas IY, Kotsyumbas GI, Shchebentovska OM / Examination of semi-finished meat and meat and vegetable cut by microstructural method (methodical recommendations). Afisha Publishing House, Lviv - 2011 - 80p.
11. National standard of Ukraine. Meat. Methods of histological determination of freshness and degree of ripening. DSTU 7353: 2013. Official publication, Ministry of Economic Development of Ukraine - Kyiv: - 2014 - 15p.