

# SYLLABUS OF THE EDUCATIONAL COMPONENT



## FOOD SAFETY AND QUALITY

|                     |                           |                   |                                                      |
|---------------------|---------------------------|-------------------|------------------------------------------------------|
| Specialty           | 211 – Veterinary Medicine | Course commitment | selective                                            |
| Educational Program | Veterinary Medicine       | Faculty           | Faculty of Veterinary Medicine                       |
| Education Level     | Master's degree           | Department        | Sanitation, Hygiene and Forensic Veterinary Medicine |

### LECTURERS

#### Alla Mykolaivna Petrenko



**Higher education Specialty of Veterinary Medicine**

**Degree - Candidate of Veterinary Sciences 16.00.06 Animal Hygiene and Veterinary Sanitation**

**Academic Status - Associate Professor of the Department of Sanitation, Hygiene and Forensic Veterinary Medicine**

**Work Experience - 20 years**

**Professional Activity Indicators Related to the Course:**

- Author of more than 3 methodological developments;
- Co-author of publications included in the Web of Science scientometric database;
- Co-author of 2 thematic publications listed in Ukraine's professional editions;
- Participant in scientific and methodological conferences.

|              |               |       |                        |                |        |
|--------------|---------------|-------|------------------------|----------------|--------|
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|--------------|---------------|-------|------------------------|----------------|--------|

## GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Objective</b>                                            | studying certification, accreditation and management systems for food safety and certain food quality indicators, gaining knowledge of traceability in the food chain, studying food safety and quality legislation, understanding the methodology for conducting risk-based inspections of food market operators' facilities.                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Format</b>                                               | lectures, laboratory and practical classes, independent work, individual tasks, interactive online classes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Specific training results and forms of their control</b> | <ul style="list-style-type: none"> <li>• Understanding the essence of the processes of production, storage, and processing of animal and plant-based products (GC2, GC3 GC11, SC12, SC15, SC16 PLO11) / Individual practical assignments.</li> <li>• Ability to organize supervision and control over the production, storage, transportation, and sale of animal and plant-based products (GC12, GC15, GC16, SC2, SC15, PLO1, PLO12) / Exam.</li> <li>• Ability to make informed decisions and conduct educational activities among industry workers and the population (GC3, GC9, GC10 SC15, SC19, SC20, PLO9, PLO12, PLO14 PLO19) / Individual assignments on regulatory framework analysis.</li> </ul> |
| <b>Scope and forms of control</b>                           | 3 ECTS credits (90 hours): 14 hours of lectures, 28 hours of laboratory and practical classes (LPA); 48 hours of independent work, current control (2 chapters); final control - differential credit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Lecturer Requirements</b>                                | Timely completion of tasks, activity, teamwork                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Enrollment Requirements</b>                              | Free enrolment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## COMPLEMENTS THE STANDARD OF EDUCATION AND THE EDUCATIONAL PROGRAM

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Competencies (GC)</b> | <ol style="list-style-type: none"> <li>1. GC2. Ability to apply knowledge in practical situations.</li> <li>2. GC3. Knowledge and understanding of the subject area and profession.</li> <li>3. GC9. Ability to make informed decisions.</li> <li>4. GC10. Ability to communicate with representatives of other professional groups of different levels (with experts in other fields of knowledge / types of economic activity).</li> <li>5. GC11. Ability to evaluate and ensure the quality of work performed.</li> <li>6. GC12. Ability to develop and implement measures aimed at protecting the population from diseases common to animals and humans.</li> <li>7. SC15. Ability to organise supervision and control of production, storage, transportation and sale of products of animal and plant origin.</li> <li>8. SC16. Ability to protect the environment from pollution by livestock waste, as well as materials and veterinary products.</li> <li>9. GC19. Ability to carry out educational activities among industry workers and the public.</li> <li>10. SC20. Ability to organise, implement and control document flow during professional activities.</li> </ol> | <b>Program Learning Outcomes (PLO)</b> | <ol style="list-style-type: none"> <li>1. PLO1. Know and correctly use the terminology of veterinary medicine.</li> <li>2. PLO8. To monitor the causes of the spread of diseases of various etiologies and biological pollution of the environment by livestock waste, as well as materials and veterinary products.</li> <li>3. ELO9. To develop measures aimed at protecting the population from diseases common to animals and humans.</li> <li>4. PLO12. To know the rules and legislative regulations on the supervision and control of production, storage, transportation and sale of products of animal and plant origin.</li> <li>5. PLO14. Understand the essence of the processes of manufacturing, storage and processing of biological raw materials.</li> <li>6. PLO19. To carry out educational activities among industry workers and the public.</li> </ol> |
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| STRUCTURE OF THE EDUCATIONAL COMPONENT                     |                                                                                                           |        |                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| Chapter 1 Accreditation and certification of food products |                                                                                                           |        |                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Lecture 1                                                  | Food accreditation and certification systems                                                              | LPA 1  | International, European and Ukrainian accreditation systems                                                         | Independent work | Study of lecture material<br>Preparation for laboratory classes<br>Certification in France (abstract)<br>Certification in the USA (abstract)<br>Certification in Germany (summary)<br>Certification in Japan (summary)<br>Certification in China (abstract)<br>FSSC 22000 certification scheme (abstract)                                                                                                                |
|                                                            |                                                                                                           | LPA 2  | International practice of food certification                                                                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           | LPA 3  | Food certification schemes                                                                                          |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Lecture 2                                                  | Standardisation of food products                                                                          | LPA 4  | Standardisation of food products                                                                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           | LPA 5  | Sanitary and phytosanitary measures                                                                                 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           | LPA 6  | Food labelling                                                                                                      |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Lecture 3                                                  | Ensuring food safety and quality in accordance with EU requirements                                       |        |                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Chapter 2 Food quality and safety assurance system         |                                                                                                           |        |                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Lecture 4                                                  | Hygiene and expertise of fermented milk products                                                          | LPA 7  | Principles and application of the HACCP system at facilities for processing food aquatic organisms of animal origin | Independent work | Study of lecture material<br>Preparation for laboratory classes<br>Principles and application of the HACCP system at the facilities for processing of food animal hydrobionts<br>Veterinary and sanitary control of meat in case of contagious diseases of animals<br>Veterinary and sanitary control of milk in case of animal diseases and poisoning<br>Veterinary and sanitary control of fish diseases and poisoning |
|                                                            |                                                                                                           | LPA 8  | HACCP system in food units of school and preschool institutions, canteens of higher education institutions          |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           | LPA 9  | Control of microbiological indicators of food products                                                              |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Lecture 5                                                  | Hygiene and expertise of cheese, butter                                                                   | LPA 10 | Control of contaminants in food products. Maximum permissible levels                                                |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           | LPA 11 | Basic requirements for recall (withdrawal) of food products                                                         |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           | LPA 12 | Maintaining documentation in the food quality and safety system                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Lecture 6                                                  | Hygiene and expertise of canned milk                                                                      | LPA 13 | Ensuring control of new food products, food products and dietary supplements                                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           | LPA 14 | Ensuring control of packaging and materials in contact with food                                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Lecture 7                                                  | Veterinary and sanitary examination and sanitary evaluation of milk in diseases and poisoning of animals. |        |                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            |                                                                                                           |        |                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |
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## CORE LITERATURE AND METHODOLOGICAL MATERIALS

1. Bezpechnist' ta yakist' harchovih produktiv: navchal'nij posibnik/ Yakubchak O. M., Taran T.V. – CP.: «Komprint», 2019. – 206 s.
2. Mel'nik S.R., Mel'nik Yu.R., Dzinyak B.O., Pih Z.G. Kontrol' yakosti ta bezpechnosti harchovih produktiv. Navchal'nij posibnik. – L'viv: Vidavnictvo «Levada», 2018. – 224 s.

Methodological support

### ELECTRONIC RESOURCES

1. Pro veterinarnu medicinu: Zakon Ukraïni vid 25.06.1992 № 2498-XII. URL: <https://zakon.rada.gov.ua/laws/show/2498-12#Text>.
2. Pro viluchennya z obigu, pererobku, utilizaciyu, znishchennya abo podal'she vikoristannya neyakisnoi ta nebezpechnoi produkciï: Zakon Ukraïni vid 14.01.2000 № 1393-XIV. URL: <https://zakon.rada.gov.ua/laws/show/1393-14#Text>.
3. Pro vnesennya zmin do deyakih zakonodavchih aktiv Ukraïni shchodo harchovih produktiv: Zakon Ukraïni vid 22.07.2014 № 1602-VII. URL: <https://zakon.rada.gov.ua/laws/show/1602-18#Text>.
4. Pro derzhavnij kontrol' za dotrimannyam zakonodavstva pro harchovi produkti, kormi, pobichni produkti tvarinnogo pohodzhennya, zdorov'ya ta blagopoluchchya tvarin: Zakon Ukraïni vid 18.05.2017 № 2042-VIII. URL: <https://zakon.rada.gov.ua/laws/show/2042-19#Text>.
5. Pro moloko ta molochni produkti: Zakon Ukraïni vid 24.06.2004 № 1870-IV. URL: <https://zakon.rada.gov.ua/laws/show/1870-15#Text>.
6. Pro osnovni principi ta vimogi do bezpechnosti ta yakosti harchovih produktiv: Zakon Ukraïni vid 23.12.1997 № 771/97-VR. URL: <https://zakon.rada.gov.ua/laws/show/771/97-%D0%B2%D1%80#Text>.
7. Poryadok vidachi veterinarnih dokumentiv: postanova Kabinetu Ministriv Ukraïni vid 21.11.2013 № 857. URL: <https://zakon.rada.gov.ua/laws/show/857-2013-%D0%BF#Text>.
8. Veterinarno-sanitarni pravila dlya boen', zabijno-sanitarnih punktiv gospodarstv ta podvirnogo zaboyu tvarin: nakaz Derzhavnogo departamentu veterinarnoï medicini Ministerstva agrarnoï politiki Ukraïni vid 14 sichnya 2004 roku № 4. URL: <https://zakon.rada.gov.ua/laws/show/z0121-04#Text>.

## EVALUATION SYSTEM

|                                                           | SYSTEM                     | POINTS    | ACTIVITY THAT IS ASSESSED                                    |
|-----------------------------------------------------------|----------------------------|-----------|--------------------------------------------------------------|
| Final assessment (different credit, exam)Final evaluation | 100 ECTS points (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 INTEGRITY

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 SBTU": to demonstrate discipline, good manners, respect each other's dignity, show kindness, honesty, and responsibility.