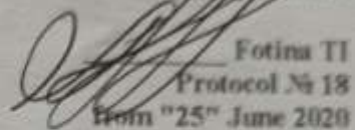


MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
SUMY NATIONAL AGRICULTURAL UNIVERSITY

Department of Veterinary Examination, Microbiology, Zoonhygiene and  
Safety and Quality of Livestock Products

"Approve"  
Head of Department

  
Fotina TI  
Protocol № 18  
from "25" June 2020

**CURRICULUM WORK PROGRAM (SILABUS)**

**PP. 27 Quality and safety of agricultural products**

**Specialty: 211 Veterinary medicine**

**Educational program: Veterinary medicine**

**Faculty: Veterinary Medicine**

2020-2021 academic year

Work program on quality and safety of agricultural products for students majoring in  
 II Veterinary Medicine

Developers:

(Nagorna I. V., Doctor of Veterinary Science, Associate Professor)

The work program was approved at a meeting of the Department of Veterinary Examination, Microbiology, Zoohygiene and Safety and Quality of Livestock Products.

Protocol № 18 of "25" June 2020

Head of the Department

(T.I. Fotina)

Agreed:

Guarantor of the educational program

(L.G. Ulko)

Dean of the Faculty

(O.L. Nechiporenko)

Methodist of the Department of Education Quality, licensing and accreditation

(A.M. Bakavie)

Registered in the electronic database: date:

02.07.2020

### 1. Description of the discipline

Name of indicators	Field of knowledge, direction of training, educational and qualification level	Characteristics of the discipline	
		full-time education	

Number of loans - 3.0	Field of knowledge: <b>21 Veterinary medicine</b> (code and name)	<b>Normative</b>	
	Specialty: 211 Veterinary medicine		
Modules - 2	Specialty:	<b>Year of preparation:</b>	
Content modules: 4			2020-2021
		<b>Course</b>	
			4
		<b>Semester</b>	
			8th
The total number of hours is 90	Educational degree: <i>master</i>	<b>Lectures</b>	
		<b>Practical, seminar</b>	
		<b>Laboratory</b>	
			20
		<b>Independent work</b>	
			70
		<b>Type of control:</b>	
		test	
Weekly hours for full-time study: classroom - 1.3 independent work of the student - 4,7			

The ratio of the number of hours of classroom classes to independent and individual work is: for full-time education - 20/70 (22.2 / 77.8).

## 2. The purpose and objectives of the discipline

**Goal:** study of legal bases of veterinary and sanitary examination, assessment of quality and safety of livestock products, ways of neutralization of conditionally suitable and dangerous products, complex of sanitary and hygienic, diagnostic and special researches of food products (meat products, dairy, lactic and fish products) and raw materials of animal origin (meat, milk, fish) for the purpose of scientifically substantiated veterinary and sanitary assessment of the quality of these products.

**Task:** to study the legal basis of veterinary and sanitary examination, assessment of quality and safety of livestock products, to master a set of sanitary and hygienic, diagnostic and special studies of food products (meat products, dairy, lactic acid and fish products) and raw materials of animal origin (meat, milk, fish) for the purpose of scientifically substantiated veterinary and sanitary assessment of quality of these products; to study ways of neutralization of conditionally suitable and dangerous foodstuff.

### As a result of studying the discipline the student must:

#### **Know:**

**Module 1:** legal bases of examination and assessment of quality of products and raw materials of animal origin, veterinary and sanitary assessment, indicators of quality and safety of meat, milk, fish.

**Module 2: veterinary and sanitary examination of products of animal origin in case of animal poisoning and radiation, causes and measures to prevent food poisoning and toxicosis.**

#### **Be able:**

**Module 1:** analyze the basic terms and definitions, determine the quality and dangerous foods, food raw materials, conduct research and determine the quality and safety of meat, milk, fish; to conduct special studies of livestock products.

**Module 2:** to conduct toxico-biological assessment of food of animal origin, to determine the residual amount of toxic substances and antibiotics in livestock products, to study food products in order to exclude the etiological factor that potentially poses a threat of food poisoning and toxicosis.

### Curriculum of the discipline

Considered and approved by the Academic Council of SNAU "December 28, 2016, protocol« 8.

#### **Module 1. Fundamentals of food quality management.**

##### ***Content module 1. Quality and safety of farm animal meat.***

*Topic 1.* History of formation, development and legal bases of veterinary and sanitary examination of products and raw materials of animal origin. Facilities and food products are controlled by the state veterinary service for the implementation of veterinary and sanitary control of quality and safety of products and raw materials of animal origin. Powers of the State Veterinary Service of Ukraine.

*Topic 2.* Veterinary and sanitary research of meat. Branding of meat. Determination of meat of sick animals. Study of the degree of freshness of meat. Veterinary - sanitary examination of meat at forced slaughter and the changes having sanitary value. Chemical and morphological composition of meat. Veterinary and sanitary examination of meat carcasses of slaughter products in case of detection of infectious diseases. Veterinary and sanitary examination of meat carcasses of products of slaughter of animals in case of detection of invasive diseases. Veterinary and sanitary examination of products of slaughter of animals in case of detection of non-communicable diseases.

##### ***Content module 2. Quality of milk and dairy products.***

*Topic 3.* Veterinary and sanitary examination of milk. Fundamentals of technology, hygiene and veterinary examination of farm animal milk. Fundamentals of technology, hygiene of milk production. Milk quality and safety indicators. Characteristics of milk of different species of animals. Organoleptic studies of milk. Determination of purity milk, fat, protein. Determination of moisture and dry matter in milk. Determination of milk safety indicators: impurities of abnormal milk in the collection, total bacterial contamination of milk. Class of milk. Control of milk naturalness. Requirements for obtaining, storing and processing milk. Factors affecting the quality of farm animal milk. Sources of bacterial contamination of milk. Study of milk defects.

*Topic 4.* Vetsaneksperimenta of dairy and sour-milk products. Assortment of dairy and sour milk products. Fundamentals of technology, manufacturing hygiene and veterinary examination of dairy products. Sampling of dairy products. Veterinary and sanitary research of dairy and sour-milk products.

**Module 2. Quality and safety of fish, food eggs and products of their processing.**

***Content module 3. Quality and safety of fish.***

*Topic 5.* Quality and safety of fish. Classification of industrial fish species. Fundamentals of technology of primary processing and canning of fish. Vetsaneksperimenta fish in diseases. Veterinary and sanitary research of fish for the degree of freshness. Control of fish safety in diseases dangerous to humans.

***Content module 4. Quality and safety of table eggs.***

*Topic 6.* Quality and safety of table eggs. Veterinary and sanitary research of eggs and egg products. Study of questions concerning the order of sampling of eggs from the party for research. Study of commodity classification of eggs. Mastering the methods of organoleptic research and oviscopy of eggs. Study of food and technical defects of eggs. Study of vetsanotsinki food eggs in the case of poultry diseases.

*Topic 7.* Fundamentals of food quality management. Veterinary research of food products as a potential source of toxicoinfections and toxicosis. Bacteriological studies of food safety. Study of features of carrying out inveterinary and sanitary control of quality and safety of food products in the conditions of DLVSE on the market. System of risk analysis and control (regulation) of quality and safety of livestock products at critical points - HACCP. HACCP product quality management systems, controlled stages and principles in the HACCP concept. Introduction of HACCP in the food industry. Consideration of the application of HACCP on the example of the process of milk processing.

## 4. The structure of the discipline

Names of content modules and topics	Number of hours											
	All-him	Full-time					total	Correspondence form				
		including						including				
		l	n	lab	ind	s.r.		l	n	lab	ind	s.r.
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Module 1. Fundamentals of food quality management.</b>												
<b>Content module 1. Quality and safety of farm animal meat.</b>												
<i>Topic 1.</i> History of formation, development and legal bases of veterinary examination of products of animal origin.	8			2		6						
<i>Topic 2.</i> Veterinary and sanitary examination of meat.	34			4		30						
<b>Together on the content module 1</b>	42			6		36						
<b>Content module 2. Quality of milk and dairy products.</b>												
<i>Topic 3.</i> Veterinary and sanitary examination of milk.	10			4		6						
<i>Topic 4.</i> Vetsanekspertiza of dairy and sour-milk products.	8			2		6						
<b>Together on the content module 2</b>	18			6		12						
<b>Together for module 1</b>	60			12		48						
<b>Module 2. Quality and safety of fish, food eggs and products of their processing.</b>												
<b>Content module 3. Quality and safety of fish.</b>												
<i>Topic 5.</i> Quality and safety of fish.	10			4		6						
<b>Together on the content module 3.</b>	10			4		6						
<b>Content module 4. Quality and safety of table eggs.</b>												
<i>Topic 6.</i> Quality and safety of table eggs.	8			2		6						
<i>Topic 7.</i> Fundamentals of food quality management.	12			2		10						
<b>Together on the content module 4</b>	20			4		16						
<b>Together for module 2</b>	30			8		22						
<b>Total hours</b>	90			20		70						

### 5. Topics of laboratory classes

№ s / n	Name topics	Number hours
1	<b>Topic 1.</b> Facilities and food products are under the control of the state veterinary service.	2
2	<b>Topic 2.</b> Determination of quality and safety of meat of slaughter animals.	2
3	<b>Topic 3.</b> Branding of meat.	2
4	<b>Topic 4.</b> Organoleptic studies of drinking milk. Determination of milk quality and safety indicators.	2
5	<b>Topic 5.</b> Veterinary and sanitary research of dairy and sour-milk products.	2
6	<b>Topic 6.</b> Veterinary and sanitary research of fish for the degree of freshness.	2
7	<b>Topic 7.</b> Control of fish safety in diseases dangerous to humans.	2
8	<b>Topic 8.</b> Veterinary and sanitary research of eggs and egg products.	2
9	<b>Topic 9.</b> Veterinary research of food products as a potential source of toxicoinfection and toxicosis.	2
10	<b>Topic 10.</b> Application of the concept of critical control point in the analysis of the dangerous factor factor on the example of production and processing of livestock products.	2
<b>Together:</b>		<b>20</b>

### 6. Independent work

№ s / n	Topic title and list of questions	Number hours
1	<p><b>Topic 1:</b> Introduction. History of development veterinary examination as a science.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Introduction;</li> <li>2. The main task of teaching the subject;</li> <li>3. History of science development;</li> <li>4. Quality and safety of livestock products.</li> </ol>	6
2	<p><b>Topic 2:</b> Nutritional value of meat and meat products. Chemical and morphological composition of meat.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Nutritional value of meat</li> <li>2. Digestibility of meat of domestic animals and poultry</li> <li>3. Chemical and morphological composition of farm animal meat.</li> <li>4. Chemical and morphological composition of poultry meat.</li> <li>5. Chemical and morphological composition of rabbit meat.</li> </ol>	6
3	<p><b>Topic 3:</b> Veterinary and sanitary examination of meat carcasses of slaughter products in case of detection of infectious diseases.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Infectious diseases in which the slaughter of animals for meat is prohibited and they must be destroyed;</li> <li>2. Vetsaneksportiza of meat of farm animals at infectious diseases.</li> </ol>	6
4	<p><b>Topic 4:</b> Veterinary and sanitary examination of meat carcasses of products of slaughter of animals in case of detection of invasive diseases</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Invasive diseases transmitted through meat.</li> <li>2. Invasive diseases that are not transmitted through meat.</li> </ol>	6
5	<p><b>Topic 5:</b> Veterinary and sanitary examination of products of slaughter of animals in case of detection of non-communicable diseases.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Veterinary and sanitary examination and evaluation of animal slaughter products for non-communicable diseases.</li> </ol>	6

6	<p>2. Pathological changes in individual organs</p> <p><b>Topic 6:</b> Veterinary and sanitary examination of products of slaughter of animals in case of poisoning</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Historical certificate of veterinary examination in case of poisoning;</li> <li>2. Routes of entry and classification of toxic substances;</li> <li>3. Pre-slaughter diagnosis and slaughter of animals;</li> <li>4. Post-mortem diagnosis of animal poisoning;</li> <li>5. Veterinary and sanitary assessment of meat and slaughter products in case of poisoning.</li> </ol>	6
7	<p><b>Topic 7:</b> Fundamentals of technology, hygiene and veterinary examination of milk.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Chemical composition and properties of milk</li> <li>2. Factors affecting the composition of milk</li> <li>3. Factors influencing milk production</li> <li>4. Physical and biochemical properties of milk</li> <li>5. Varietal evaluation of milk</li> <li>6. Milk of other species.</li> </ol>	6
8	<p><b>Topic 8:</b> Fundamentals of production technology and veterinary examination of dairy and fermented milk products.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Fundamentals of production technology and veterinary examination of dairy products.</li> <li>2. Fundamentals of production technology and veterinary examination of fermented milk products.</li> </ol>	6
9	<p><b>Topic 9:</b> Veterinary and sanitary examination of fish.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Classification of industrial fish species.</li> <li>2. Fundamentals of technology of primary processing and canning of fish;</li> <li>3. Toxicological evaluation of products of animal origin;</li> <li>4. Vetsanekspertiza fish in diseases.</li> </ol>	6
10	<p><b>Topic 10:</b> Veterinary and sanitary examination of food eggs.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Veterinary examination of eggs in the markets</li> <li>2. The use of eggs in infectious diseases of poultry</li> <li>3. Veterinary and sanitary examination of duck and goose eggs</li> </ol> <p><b>Topic 11:</b> Veterinary and sanitary examination of food products in the conditions of DLVSE on the market.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Agricultural products allowed for sale on the market.</li> <li>2. Agricultural products that are not allowed for sale on the market.</li> </ol>	5
11	<p><b>Topic 12:</b> System of risk analysis and control (regulation) of quality and safety of livestock products at critical points - HACCP.</p> <p style="text-align: center;">Plan</p> <ol style="list-style-type: none"> <li>1. Introduction;</li> <li>2. The main principles of work of Codex Alimentarius;</li> <li>3. HACCP product quality management systems;</li> <li>4. Controlled stages and principles in the HACCP concept;</li> <li>5. Introduction of HACCP in the food industry.</li> </ol>	5
12		



## 7. Teaching methods

### 1. Methods of learning by source of knowledge:

1.1. **Verbal**: story, explanation, conversation (heuristic and reproductive), lecture, instruction, work with a book (reading, translation, writing, drawing up a plan, reviewing, taking notes, making tables, graphs, reference notes, etc.).

1.2. **Visual**: demonstration, illustration, observation.

1.3. **Practical**: laboratory method, practical work, exercise, production-practical methods.

### 2. Teaching methods by the nature of the logic of cognition.

2.1. **Analytical** (*essence: the breakdown of the whole into parts in order to study their essential features*).

2.2. **Methods of synthesis** (*essence: the connection of the selected elements or properties of the object, the phenomenon into one whole*).

2.3. **Inductive method** (*essence: the study of objects or phenomena from individual to general*).

2.4. Deductive method (*essence: the study of objects or phenomena from general to individual*).

2.5. Translational method (*essence: these are conclusions from the general to the general, from partial to partial, from singular to singular*).

### 3. Teaching methods by the nature and level of independent mental activity of students.

3.1. **Problematic** (problem information)

3.2. **Partial search (heuristic)**

3.3. **Research**

3.4. Reproductive (*essence: the possibility of applying what has been studied in practice*).

3.5. **Explanatory and demonstrative**

**4. Active teaching methods** - use of technical means of learning, brainstorming, crossword puzzles, competitions, debates, round tables, binary classes, business and role-playing games, talk shows, trainings, use of problem situations, excursions, on-the-job classes, group research, self-assessment, simulation teaching methods (based on imitation of future professional activity), use of training and control tests, use of reference notes of lectures *and other*)

**5. Interactive learning technologies** (use of multimedia technologies, case-study (method of analysis of specific situations), dialogue training, cooperation of students, online service Kahoot!, platform Zoom for video conferences, mobile application-messenger Viber).

## 8. Methods of control

1. Rating control according to the 100-point scale of ECTS assessment

2. Carrying out intermediate control during the semester (intermediate certification)

3. Polycriteria assessment of current work of students:

- the level of knowledge demonstrated in practical, laboratory and seminar classes;

- activity during the discussion of issues raised in class;

- independent study of the topic as a whole or individual issues;

- writing essays;

- test results;

- written tasks during tests.

4. Direct consideration in the final assessment of the student's performance of a particular individual task:

- educational and practical research with presentation of results, etc.

## 9. Distribution of points received by students for offset

Current testing and independent work	Ind. work	Together for modules	Attestation	Sum

<b>Module 1</b>		<b>Module 2</b>		15	<b>and VTS</b> 85 (70 + 15)	15	100
<b>Content. mo- fig 1</b>	<b>Content. mo- fig 2</b>	<b>Content. mo- fig 3</b>	<b>Content. mo- fig 4</b>				
T1-T4	T5-T6	T7-T8	T9-T10				
20	15	15	20				

Distribution of ECTS points based on learning outcomes and semester (final) certification in the form of credit:

*on a full-time basis*

up to 70 points - according to the results of modular control during the semester;

up to 15 points - according to the results of intermediate certification;

up to 15 points - for independent work

#### 10. Assessment scale: national and ECTS

The sum of points for all types of educational activities	ECTS assessment	Score on a national scale	
		for exam, course project (work), practice	for offset
90 - 100	<b>A</b>	perfectly	credited
82-89	<b>B</b>	fine	
75-81	<b>C</b>		
69-74	<b>D</b>		
60-68	<b>E</b>	satisfactorily	
35-59	<b>FX</b>	unsatisfactory with the possibility of reassembly	not credited with the possibility of re-assembly
1-34	<b>F</b>	unsatisfactory with mandatory re-study of the discipline	not enrolled with mandatory re-study of the discipline

#### 12. Methodical support

1. Fotina TI Vetsanekspertiza: Kurs lektsii dlya studentiv napryamu pidgotovky 6.110101 osvitno-kafikatsionnoho rivnya «bakalavr» kurs lektsii / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 202 s.

2. Fotina TI Methodical instructions for conducting laboratory-practical classes and independent work on veterinary and sanitary research of milk for students in the direction of training 6.110101 educational qualification level "bachelor" / Fotina TI, Kasyanenko OI, Petrov R. V. - Sumy, 2014. - 72 p.

3. Fotina TI Methodical instructions for laboratory-practical classes and independent work on the determination of antibiotics in food and agricultural products for students in the direction of training 6.110101 OQR "bachelor" / Fotina TI, Kasyanenko OI, Petrov R. V. - Sumy, 2014. - 21 p.

4. Fotina TI Methodical instructions for carrying out laboratory-practical classes and independent work on research of products of slaughter at poisoning of animals for students of a direction of preparation 6.110101 OQR "bachelor" / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 25 p.

5. Fotina TI Veterinary and sanitary examination: Methodical instructions for conducting practical classes on sanitary research of sausages and smoked products / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 20 p.

6. Fotina TI Methodical recommendations for veterinary and sanitary research of meat and meat products / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 54 p.

7. Fotina TI Veterinary and sanitary examination and evaluation of slaughter products of wild industrial animals and game birds. Methodical recommendations / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 16 p.

8. Fotina TI Methodical instructions for conducting practical classes on veterinary and sanitary research of canned meat / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 27 p.

9. Fotina TI Methodical instructions for carrying out laboratory-practical classes and independent work on definition on the determination of nitrates and nitrites in plant products for students in the direction of training 6.110101, 7.11010101, 8.11010101 full-time EQL "bachelor", "specialist", "master" / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 29 p. .

10. Laboratory work in veterinary medicine. Technique of laboratory works. Educational and methodical manual for laboratory-practical classes and independent work / [Fotina TI, Petrov RV, Kasyanenko OI, Vershnyak TV ] - C.: CHAY. - 2014. - 114 p.

11. Fotina TI Research of sausages and smoked products. Methodical recommendations / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 16 p.

12. Fotina TI Veterinary and sanitary examination: Situational tasks for veterinary and sanitary examination with the basics of technology and standardization and radiological control of livestock products / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 25 s.

13. Fotina TI Prevention and elimination of infectious fish diseases / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2014. - 62 p.

14. Fotina TI Fundamentals of veterinary and sanitary microbiology: Methodical recommendations for practical classes and independent work / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2013. - 41 p.

15. Fotina TI Quality and safety of agro-industrial products: Methodical recommendations for practical classes and independent work on bacteriological research of livestock products / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2013. - 36 p. .

16. Fotina TI Vetsanekspertiza kachestva i bezopasnosti produktov zhyvotnovodstva: Metodicheskie rekomendatsii k prakticheskikh zanyatiyam i samostoynoi rabotu po issledovanii limfatichekikh uzlov uboynykh zhyvotnykh / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2016. - 42 s.

17. Fotina TI Quality and safety of food agro-industrial complex: Methodical instructions for conducting laboratory-practical classes and independent work on the quality and safety of food eggs / Fotina TI, Kasyanenko OI, Petrov RV - Sumy, 2016 - 22 p.

### **13. Recommended reading (basic)**

1. Hygiene of milk and dairy products: Textbook / Yatsenko IV, Bogatko NM, Bukalova NV, Fotina TI, Biben IA, Bergilevich OM, Binkevich VY, Gachak YR, Tkachuk SA, Kamyansky VV, Bondarevsky MM, Zazharskaya NM, Tsyvirko IL, Kasyanenko OI - Kharkiv: RVV KhDZVA, 2016. - 427 p.

2. Veterinary and sanitary examination with the basics of technology and standardization of livestock products / [Yakubchak OM, Khomenko VI, Melnichuk SD etc.]. - Kyiv: LLC "Bioprom", 2005. - 800 p.

3. Khomenko VI Workshop on veterinary and sanitary examination with the basics of technology and standardization of livestock and crop products. - Kyiv: Vetinform, 1998. - 240 p.

4. Veterinary and sanitary examination, standardization and certification of products. In 2 volumes. Tom I. General examination, standardization and certification of products with the basics of technology and hygiene of production, canning and storage / [A. V. Aganin, IG Bereza, Yu. I. Boykov, etc.]. - C-II. : OOO KomChaб, 2005. - 440 c.

5. Veterinary and sanitary examination, standardization and certification of products. In 2 volumes. Volume II. Private veterinary and sanitary examination of livestock products / [P. V. Zhitenko, BK Ilyasov, VI Burkov and others]. - C-II. : OOO KomChaб, 2005. - 520 c.

### **Auxiliary**

1. Zon GA Pathological autopsy of animals / GA Zon, MV Skrypka, LB Ivanovska. ; ed. HA. Zone. - Donetsk: PP Glazunov RO, 2009. - 189 p.

2. Mandatory minimum list of studies of raw materials, products of animal and plant origin, feed materials, feed, vitamin drugs, etc., which should be carried out in state laboratories of veterinary medicine and based on the results of which a veterinary certificate is issued (f-2).

Approved by the order of the State Department of Veterinary Medicine of Ukraine dated 03.11.98 № 16 and registered in the Ministry of Justice of Ukraine on 30.11.98 for № 761/3201.

3. Rules of pre-slaughter veterinary inspection of animals and veterinary-sanitary examination of meat and meat products. Order of the State Department of Veterinary Medicine of the Ministry of Agrarian Policy of Ukraine of June 7, 2002.

4. Aganin AV, Bereza IG, Boykov YI etc. Veterinary and sanitary examination, standardization and certification of products. In 2 volumes. Volume I. General examination, standardization and certification of products with the basics of technology and hygiene of production, canning and storage. LLC "ComSnab", 2005. - 440 p.

5. Zhitenko PV, Ilyasov BK, Burkov VI etc. Veterinary and sanitary examination, standardization and certification of products. In 2 volumes. Volume II. Private veterinary and sanitary examination of livestock products. LLC "ComSnab", 2005. - 520 p.

6. Kozak MV Fundamentals of veterinary examination and quality assessment of livestock and crop products (manual for veterinary experts). - Ternopil: Textbooks and manuals, 2001. - 240 p.

7. Kravtsiv RY, Kozak MV, Ostapyuk YI Fundamentals of veterinary and sanitary examination of milk. - Lviv: Triada plus, 2004. - 172 p.

8. Kravtsiv RY, Ostapyuk YI, Kozak MV Fundamentals of veterinary and sanitary examination of meat. - Lviv: Triada plus, 2004. - 232 p.

#### **14. Information resources**

1. Scientific and methodical complex.
2. Library.
3. Reading room of the library.
4. Relevant topics on the Internet.