WORKING COURSE SYLLABUS

Veterinary and sanitary examination

Recommended by the Methodological Council for the Education Field:

36.05.01 Veterinary medicine

1. GOALS AND OBJECTIVES OF THE DISCIPLINE

The aim of mastering the discipline **«Veterinary and sanitary examination**» is to provide students with theoretical knowledge, practical skills and abilities on sanitary and hygienic control and rules of veterinary and sanitary evaluation of livestock and crop products, on the basics of technology and standardization in production.

2. REQUIREMENTS FOR THE RESULTS OF MASTERING THE DISCIPLINE

The development of the discipline "Veterinary and sanitary examination" is aimed at creating the following competencies (parts of competencies) for students:

Code	Competence	Indicators of competence
		accomplishment (within the discipline)
UK-1	The ability to carry out a critical	UK-1.1 Analyzes the task, highlighting its
	analysis of problem situations	basic components;
	based on a systematic approach,	UK-1.2 Defines and ranks the information
	to develop a strategy of action.	required to solve the task;
		UK -1.3 Searches for information to solve
		the task by various types of queries;
		UK-1.4 Offers solutions to the problem,
		analyzes the possible consequences of their
		use;
		UK -1.5 Analyzes the ways of solving problems of a philosophical, moral and
		personal nature based on the use of basic
		philosophical ideas and categories in their
		historical development and socio-cultural
UK-10	The ability to make informed	UK -10.1 Understands the basic principles
	economic decisions in various	of the functioning of the economy and
	areas of life	economic development, the goals of the
		form of state participation in the economy;
		UK -10.2 Applies methods of personal
		economic and financial planning to
		achieve current and long-term financial
		goals;
		UK -10.3 Uses financial instruments to
		manage personal finances (personal budget) controls its own comparison and
		budget), controls its own economic and financial risks.
GPC -5	The ability to draw up special	GPC-5.1 Has the skills to search for the
	documentation, analyze the	necessary forms of documentation on
	results of professional activity	official websites and in specialized
	and submit accounting	databases.

Table 2.1. List of competencies formed by students during the development of the discipline (results of the development of the discipline)

	documents using specialized databases.	GPC-5.2Possessesprofessionalterminologyand skillsinfillingoutanalyticalandreportingdocumentsofaprofessionalorientation.GPC-5.3Heisabletousespecializedsoftwaretoanalyzetheresultsof
		professional activity and compile accounting documentation.
GPC -6	The ability to analyze, identify and assess the risk of the risk of the occurrence and spread of diseases.	GPC-6.1 Has knowledge in the field of etiology and pathogenesis of animal diseases of different species.GPC-6.2 Has the skills to diagnose non-infectious, infectious and invasive diseases, identify pathogens of infectious
		and invasive diseases in animals. GPC-6.3 He knows the patterns of the occurrence and spread of diseases in animal populations, factors predisposing to diseases and the causes of possible complications.
PC -19	The ability to perform post- mortem diagnostic examination of animals in order to establish pathological processes, diseases, causes of death.	PC-19.1 Able to conduct a general examination of animal corpses before autopsy. PC-19.2 He is capable of performing autopsy of animal corpses using special tools and compliance with safety requirements. PC -19.3 He is able to establish the cause of death and a pathoanatomic diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases. PC-19.4 He is able to formalize the results
PC -23	The ability to analyze the effectiveness of measures for the prevention of animal diseases in order to improve them.	of a postmortem diagnostic examination of an animal in the autopsy protocol. PC-23.1 He is capable of collecting and analyzing information, including veterinary statistics data, necessary to assess the effectiveness of preventive antiepizootic measures, prevention of non- infectious animal diseases, veterinary and sanitary measures. PC-23.2 Able to evaluate the effectiveness of preventive measures and methods of their implementation, including using special software.

PC -23.3 He is able to make suggestions on
the correction of measures for the
prevention of animal diseases on the basis
of the analysis carried out.

3. COURSE IN HIGHER EDUCATION

The discipline "Veterinary and sanitary examination" refers to the mandatory part of block B1 of the Educational Program of Higher Education.

As part of the Educational Program of Higher Education, students also master other disciplines and /or practices that contribute to achieving the planned results of mastering the discipline "Veterinary and sanitary examination".

Competence	Competence	Previous	Subsequent
code		Disciplines	Disciplines (Modules)
		(Modules)	
UK-1	The ability to carry out a	History	Organization of
	critical analysis of	Philosophy	veterinary affairs
	problem situations	Life safety	Maths
	based on a systematic	Obstetrics,	Fundamentals of
	approach, to develop a	gynecology and	Economics and
	strategy of action.	andrology	Management
		Internal diseases	Veterinary deontology
		General surgery	The basics of
		Private Veterinary	intellectual work
		Surgery	Zoopsychology
		Parasitology and	Organization of state
		invasive diseases	veterinary supervision
		Epizootology and	Career management
		infectious diseases	Space technologies at
			the service of the agro-
			industrial complex
			Reconstructive surgery
UK-10	The ability to make	-	Organization of
	informed economic		veterinary affairs
	decisions in various		Maths
	areas of life		Fundamentals of
			Economics and
			Management
			Economics and
			organization of
			agricultural production
			Veterinary and
			industrial laboratories
			with design basics

Table 3.1. List of Higher Education Program components disciplines that contribute to expected learning outcomes

CDC 5	The chility to draw	Vataninamy acustian	Organization of
GPC -5	The ability to draw up special documentation, analyze the results of professional activity and submit accounting documents using specialized databases.	Veterinary genetics Computer science Breeding with the basics of private animal husbandry Clinical diagnostics Pathological anatomy Operative surgery with topographic anatomy Instrumental diagnostic methods Obstetrics, gynecology and andrology Internal diseases Parasitology and invasive diseases Epizootology and infectious diseases	Organization of veterinary affairs Forensic veterinary examination and dissection of animals Veterinary deontology Economics and organization of agricultural production Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases Organization of state veterinary supervision Veterinary and industrial laboratories with design basics Anesthesiology, resuscitation and intensive care Dermatology Cardiology Endocrinology Nephrology
GPC -6	The ability to analyze, identify and assess the risk of the risk of the occurrence and spread of diseases.	basics of ecology Life safety	Organization of veterinary affairs Forensic veterinary examination and dissection of animals Introduction to the specialty General and Veterinary Ecology Veterinary Sanitation Processing technology for livestock products Medicinal and poisonous plants Fodder plants Animal health and welfare Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases

PC -19	The ability to perform post-mortem diagnostic examination of animals in order to establish pathological processes, diseases, causes of death.	Toxicology Obstetrics, gynecology and andrology Internal diseases	Organization of state veterinary supervision Horse diseases Diseases of Productive Animals Diseases of small pets Болезни мелких домашних животных Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals Anesthesiology, resuscitation and intensive care Veterinary ophthalmology Animal Dentistry Forensic veterinary examination and dissection of animals Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases Horse diseases Diseases of small pets
			resuscitation and intensive care
			ophthalmology Animal Dentistry
	post-mortem diagnostic examination of animals in order to establish pathological processes, diseases, causes of death.	Cytology, Histology and Embryology Life safety Pathological anatomy Toxicology Obstetrics, gynecology and andrology Internal diseases General surgery Private Veterinary Surgery Parasitology and invasive diseases Epizootology and infectious diseases	Forensic veterinary examination and dissection of animals Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases Horse diseases Diseases of Productive Animals Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals Dermatology Cardiology Endocrinology Nephrology Veterinary ophthalmology Animal Dentistry
PC -23	The ability to analyze the effectiveness of	Breeding with the basics of private	Organization of veterinary affairs

prevention of animal	Animal health and	Forongio votorinory
1		Forensic veterinary
diseases in order to	welfare	examination and
improve them.	Toxicology	dissection of animals
	Internal diseases	Fundamentals of
	General surgery	Economics and
	Private Veterinary	Management
	Surgery	Veterinary sanitation
	Parasitology and	Economics and
	invasive diseases	organization of
	Epizootology and	agricultural production
	infectious diseases	Здоровье и
		благополучие
		животных
		Organization of state
		veterinary supervision
		Diseases of bees and
		entomophages
		Fish pathology and
		aquaculture

4. COURSE WORKLOAD AND TRAINING ACTIVITIES

Course workload of the discipline "Veterinary and sanitary examination" is 6 credits.

Table 4.1. Types of academic activities during the period of the HE program mastering for *full-time* study

Types of academic activities		HOURS		Seme	sters	
			8	9	-	-
Contact academic hours		108	54	54	-	-
including						
Lectures		36	18	18	-	-
Lab work		72	36	36	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		90	44	46	-	-
Evaluation and assessment (exa	am/pass/fail	18	10	8	-	-
grading)						
	Academic	216	108	108	-	-
Course workload						
Course workloau	Credit	6	3	3	-	-
	unit					

Table 4.2. Types of academic activities during the period of the HE program mastering for **part-time** study

Types of academic activities	HOURS		Seme	sters	
Types of academic activities		8	9	-	-

Contact academic hours		36	18	18	-	-
including						
Lectures		-	-	-	-	-
Lab work		36	18	18	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		160	44	116	-	-
Evaluation and assessment (ex grading)	kam/pass/fail	20	10	10	-	-
	Academic	216	72	144	-	-
Course workload hour						
Course workload	Credit	6	2	4	-	-
	unit					

5. CONTENT OF THE DISCIPLINE

Name of the discipline section	Content of the section (topics)	Types of academic activities
Section 1. Basics of veterinary and sanitary	Topic 1.1 Transportation of animals to slaughterhouses.	Lectures, Lab work.
expertise.	Topic 1.2 Pre-slaughter housing of animals and its importance.	Lectures, Lab work.
	Topic 1.3 Animal processing plants and veterinary and sanitary requirements for them.	Lectures, Lab work.
Section 2. Fundamentals of technology and hygiene	Topic 2.1 Fundamentals of technology and hygiene of animal processing.	Lectures, Lab work.
of animal processing.	Topic 2.2 Organization and methods of inspection of heads, carcasses and internal organs.	Lectures, Lab work.
	Topic 2.3 Meat changes due to improper storage.	Lectures, Lab work.
	Topic 2.4 Basics of technology and hygiene for preserving meat and meat products.	Lectures, Lab work.
	Topic 2.5 Basics of technology, hygiene and veterinary and sanitary expertise of sausages and ham products.	Lectures, Lab work.
	Topic 2.6 Basics of technology, hygiene of poultry processing and inspection methods of carcasses and internal organs.	Lectures, Lab work.
Section 3. Veterinary and sanitary examination of	Topic 3.1 Veterinary and sanitary examination of animal slaughter products for infectious diseases.	Lectures, Lab work.

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meat, animal and plant	Topic 3.2 Veterinary and sanitary	Lectures,	Lab
products	examination of animal slaughter	work.	
	products for invasive diseases.		
	Topic 3.3 Sanitary and veterinary	Lectures,	Lab
	expertise of slaughter products for non-	work.	
	communicable diseases, animal		
	poisoning, antibiotic treatment and		
	radioactive substances.		
	Topic 3.4 Veterinary and sanitary	Lectures,	Lab
	examination of poultry, rabbits and	work.	
	nutria meat.		
	Theme 3.5 Veterinary and sanitary	Lectures,	Lab
	examination of eggs, fish and meat of	work.	
	wild animals.		
	Topic 3.6 Animal health expertise of	Lectures,	Lab
	meat, meat and other animal products,	work.	
	plant food products.		
	Topic 3.7 Animal health and sanitary	Lectures,	Lab
	examination of milk and dairy products.	work.	
	Topic 3.8 Animal health and sanitary	Lectures,	Lab
	examination of honey.	work.	
	Topic 3.9 Nutritional value of	Lectures,	Lab
	mushrooms and their classification.	work.	
Section 4. Basics of	Topic 4.1 Fundamentals of technology	Lectures,	Lab
technology and hygiene in	and hygiene in canning meat and meat	work.	
the canning of meat and	products.		
meat products.	Topic 4.2 Preservation of meat and meat	Lectures,	Lab
	products at low temperature.	work.	
	Topic 4.3 Preserving meat and meat		Lab
	products at high temperature.	work.	
	Theme 4.4 Preserving meat by salting.	Lectures,	Lab
	<u>8</u> .	work.	
	Topic 4.5 New methods of preserving	Lectures,	Lab
	meat.	work.	

6. CLASSROOM INFRASTRUCTURE AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Material and technical support of the discipline

Classroom for Academic Activity Type	Equipping the classroom	Specialized educational/laboratory equipment, software and materials for the development of the discipline (if necessary)
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Lecture	An auditorium for conducting lecture-type classes, equipped with a set of specialized furniture; a board (screen) and technical means of multimedia presentations.	- Information stands. -Biological microscopes.
Laboratory	An auditorium for laboratory work, individual consultations, routine monitoring and interim certification, equipped with a set of specialized furniture and equipment.	- Information stands. -Biological microscopes.
Self-studies	An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to an electronic information and educational environment.	

7. RECOMMENDED SOURCES FOR COURSE STUDIES

Main reading:

- The order of accounting and identification of animals on the territory of the Russian Federation : a training manual / Yu.A. Vatnikov, M.I. Shopinskaya, S.G. Drukovsky, E.V. Kulikov. - Electronic text data. - Moscow : RUDN, 2021: <u>http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=494762&idb=</u>0
- Forensic veterinary and sanitary expertise / A.A. Kunakov, I.G. Seregin, G.A. Talanov, A.G. Zabashta; ed. by A.A. Kunakov. Electronic text data. Saint-Petersburg: Kvadro, 2020: http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=487541&idb=0
- 3. Veterinary and sanitary and commodity evaluation of beef with regard to the requirements of national and international legislation : a training manual / Yu Vatnikov, M.I. Shopinskaya, S.G. Drukovsky, E.V. Kulikov. Electronic text data.
 Moscow: RUDN, 2021. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=496461&idb= 0

Additional Reading:

- 1. Seregin I.G., Borovikov M.F., Nikitchenko V.E. "Veterinary and sanitary expertise of food products in food markets" Study Guide. I: "Giard", 2005.
- Pronin VV. Fisenko SP Veterinary and sanitary expertise with the basics of technology and standardization of livestock products. Practice [Electronic resource]: Textbook - 3rd ed. - SPb.: Publishing house "Lan", 2018. <u>http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=464867&idb=0</u>

- 3. Chepurnaya I.P. "Identification and adulteration of food products". Textbook. Moscow: "Dashkov and K", 2007.
- 4. Seregin I.G., Kalnitskaya O.I., Borovikov M.F. "Veterinary and sanitary examination of slaughter products of rabbits and nutria." Textbook . M: MHUPB, 2005.
- 5. RAGS RUSSIAN ARCHIVE OF STATE STANDARDS, as well as construction norms and rules (SNiP) and samples of legal documents // http://www.rags.ru URL: http://www.rags.ru RUSSIAN ARCHIVE OF STATE STANDARDS (RASGS), SNiPs and samples of legal documents _ Website of RANEPA (RASGS, ANH)
- 6. Kunakov A.A., Seregin I.G., Talanov G.A., Zabolita A.G. Forensic veterinary and sanitary expertise. Textbook. M: "KolosS", 2007.
- 7. Motovilov KY, Bulatov AP, Poznyakovsky VM, Karmatskikh SA, Lantseva NN Expertise of fodder and feed additives. 4th ed. SPb.: Lan', 2013.
- 8. Mishanin Y.F. Ichthiopathology and veterinary and sanitary expertise of fish. 1st ed. St. Petersburg: Lan', 2012.
- 9. Urban VG Collection of normative legal documents on veterinary and sanitary examination of meat and meat products. 1st ed. St. Petersburg: Lan', 2010.
- 10. Pimenov M. Y. Honey. Merchandise characteristics and veterinary and sanitary expertise. Textbook. M.: Aquarium-Print, 2015.

Resources of the Internet information and telecommunication network:

1. Electronic library system of RUDN and third-party Electronic library systems to which university students have access on the basis of concluded contracts:

- Electronic library system of RUDN - ELS RUDN http://lib.rudn.ru/MegaPro/Web

- ELS "University Library online"<u>http://www.biblioclub.ru</u>
- ELS Yurayt http://www.biblio-online.ru
- ELS "Student Consultant"<u>www.studentlibrary.ru</u>
- ELS "Lan"<u>http://eZlanbook.com/</u>
- ELS "Trinity Bridge"http://www.trmost.com/
- 2. Databases and search engines:

- electronic fund of legal and regulatory and technical documentation http://docs.cntd.ru/

- search engine Yandex <u>https://www.yandex.ru/</u>
- search engine Google <u>https://www.google.ru/</u>

- abstract database SCOPUS <u>http://www.elsevierscience.ru/products/scopus/</u>

Educational and methodological materials for independent work of students during the development of the discipline/ module*:

- 1. A course of lectures on the discipline "Veterinary and sanitary examination".
- 2. Laboratory workshop on the discipline "Veterinary and sanitary examination".

* - All educational and methodological materials for independent work of students are placed in accordance with the current procedure on the discipline page in the <u>Telecommunication educational and Information System!</u>

8. MID-TERM ASSESSMENT

Evaluation materials and a point-rating system^{*} for assessing the level of competence formation (part of competencies) based on the results of mastering the discipline "**Veterinary and sanitary examination**" are presented in the Appendix to this Work Program of the discipline.

* - Assessment Materials and a Point Rating System are formed based on the requirements of the relevant local regulatory act of the RUDN.

DEVELOPER:

Professor, Department of Veterinary Medicine		Nikitchenko V.E.	
Position, Basic curriculum	Signature	Full name.	
IEAD OF THE DEPARTMENT:			
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