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WORKING COURSE SYLLABUS

Veterinary sanitation

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 Sanitation**" is to acquire theoretical knowledge and practical skills that ensure the identification of the causes and conditions of environmental problems of veterinary surveillance facilities in relation to mass diseases of various nature, justification, organization and implementation of preventive and health measures aimed at their prevention and elimination.

2. REQUIREMENTS FOR THE RESULTS OF MASTERING THE DISCIPLINE

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

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

Code	Competence	Indicators of competence accomplishment (within the discipline)
UK -3	The ability to organize and manage the work of the team, developing a team strategy to	UK-3.1 Defines his role in the team based on the strategy of cooperation to achieve the goal;
	achieve the goal.	UK-3.2 Formulates and takes into account in its activities the peculiarities of the behavior of groups of people, identified depending on the goal;
		UK-3.3 Analyzes the possible consequences of personal actions and plans his actions to achieve the desired result;
		UK-3.4 Exchanges information, knowledge and experience with team members;
		UK -3.5 Argues his point of view regarding the use of the ideas of other team members to achieve the goal;
		UK -3.6 Participates in team work on the execution of assignments.
UK -8	The ability to create and maintain safe living conditions in everyday life and in professional activities for the preservation of the natural environment, ensuring the	UK-8.1 Analyzes the factors of harmful influence on the vital activity of elements of the habitat. (technical means, technological processes, materials, buildings and structures, natural and social phenomena);

	sustainable development of society, including in the event of a threat and occurrence of emergencies and military conflicts.	 UK -8.2 Identifies dangerous and harmful factors within the scope of the task being performed; UK-8.3 Identifies and eliminates problems related to safety violations in the workplace; UK-8.4 Explains measures to prevent emergencies; UK -8.5 "Explains the rules of conduct in the event of emergencies of natural and man-made origin, as well as in the event of military conflicts;" UK-8.6 Provides first aid, participates in
GPC-2	The ability to interpret and evaluate in professional activity the influence of natural, socio- economic, genetic and economic factors on the physiological state of the animal organism.	recovery activities. GPC-2.1 Has knowledge of the influence of natural, socio-economic, genetic and economic factors on the animal body. GPC-2.2 He is able to establish the presence and reliability of cause-and- effect relationships between the effects of certain etiological factors on the animal's body and the development of diseases. GPC-2.3 Possesses methods of preventive and curative correction of the effects of adverse environmental factors that can cause deterioration of animal health.
GPC-3	improve professional activities in accordance with regulatory legal acts in the field of agro- industrial complex.	 GPC-3.1 He knows modern legal norms, both state and international, regulating activities in the field of veterinary medicine, veterinary and sanitary expertise and agro-industrial complex. GPC-3.2 Has the skills of updating legal information, including in the field of agro-industrial complex of professional orientation. GPC-3.3 Carries out activities in accordance with regulatory legal acts in the field of agriculture, as well as in the field of veterinary medicine and veterinary and sanitary expertise.
GPC -4	The ability to use methods of solving problems using modern equipment in the development of new technologies in professional activity and to use	GPC-4.1 Possesses the conceptual and methodological apparatus of basic natural sciences at a level sufficient for full- fledged professional activity at the modern level.

	modern professional methodology for conducting experimental research and interpreting their results.	GPC-4.2 He knows the methods of solving problems using modern equipment. GPC-4.3 He is ready to use modern methodology in the development and conduct of experimental research. GPC-4.4 Uses modern professional	
		methodology in interpreting research results.	
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 -15	Ability to organize preventive immunizations (vaccinations), therapeutic and preventive treatments of animals in accordance with the plan of antiepizootic measures.	PC-15.1 He is able to make individual and group plans of preventive immunizations (vaccinations) taking into account the epizootic situation in the territory of the	
		PC-15.2 He is able to organize therapeutic and preventive treatment of animals in accordance with the plan of anti-epizootic measures, as well as, if necessary, taking into account the real epizootic situation in the places where animals stay, including in conditions of agricultural production.	
PC -17	Ability to organize disinfection and disinfection of livestock premises to ensure veterinary and sanitary well-being in accordance with the plan of	PC-17.1 He is capable of collecting and analyzing information necessary for the organization and planning of veterinary and sanitary measures	

	veterinary and sanitary measures	PC-17.2 He is able to choose the optimal equipment, consumables and medicinal and disinfecting preparations necessary and safe enough for the conduct of veterinary and sanitary measures
		PC-17.3 He is able to determine the procedure for disinfection, disinsection, deratization and other veterinary and sanitary measures, taking into account the peculiarities of animal husbandry, technical characteristics of premises and epizootic situation PC-17.4 He is able to monitor the results
		of veterinary and sanitary measures
PC -20	Ability to develop an annual plan of antiepizootic measures, a plan for the prevention of	PC-20.1 Able to conduct epizootological examination of the organization, territory.
	non-infectious animal diseases, a plan of veterinary and sanitary measures.	PC-20.2 He is able to develop an annual plan of antiepizootic and antiparasitic measures, a plan for the prevention of non-infectious animal diseases, a plan of veterinary and sanitary measures.
		PC-20.3 He is able to analyze the effectiveness of measures for the prevention of animal diseases in order to improve them.
PC -21	The ability to carry out inspections of the veterinary and sanitary condition and microclimate of livestock premises in accordance with the plan of antiepizootic measures, the plan of prevention of non-	 PC-21.1 He is able to detect deviations in the parameters of the microclimate in livestock premises from the normative PC-21.2 He is able to detect violations of the veterinary and sanitary condition of livestock premises, determine their cause and possible consequences
	infectious animal diseases, the plan of veterinary and sanitary measures	PC-21.3 He is able to use the information obtained during the inspection of the veterinary and sanitary condition and microclimate of livestock premises for risk analysis of non-infectious, infectious and invasive diseases

PC -22	Ability to organize measures to protect the organization from the introduction of infectious and invasive diseases in accordance with the plan of antiepizootic measures.	 PC -22.1 He is able to assess the epizootic state of an organization (territory), identify risks and possible causes of epizootic foci, as well as factors affecting their spread in specific organizations, territories. PC-22.2 Able to choose and apply the most effective measures to protect the organization from the introduction of infectious and invasive diseases.
		PC-22.3 He is able to carry out operational control of the effectiveness of the activities carried out.
PC -23	The ability to analyze the effectiveness of measures for the prevention of animal diseases in order to improve them.	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.
PC -24	Ability and willingness to promote veterinary knowledge, including in the field of prevention of animal diseases.	PC-24.1 He is able to set goals in the field of veterinary knowledge promotion, plan the strategy and tactics of upcoming events.
		PC-24.2 He is able to use computer and telecommunication facilities for the preparation and demonstration of materials used in the process of promoting veterinary knowledge.
		PC-24.3 He is able to conduct conversations, lectures, seminars for employees of the organization in order to explain the principles of work on the prevention of animal diseases.

3. COURSE IN HIGHER EDUCATION

The discipline "**Veterinary Sanitation** " 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 Sanitation** ".

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

Competence	Competence	Previous	Subsequent Disciplines
code	-	Disciplines	(Modules)
		(Modules)	
UK -3	The ability to organize	Jurisprudence	Veterinary deontology
	and manage the work of	Life safety	Fundamentals of
	the team, developing a	Operative surgery	intellectual work
	team strategy to achieve	with topographic	Personality psychology
	the goal.	anatomy	and professional self-
		Internal non-	determination
		infectious diseases	Fundamentals of social
		General surgery	and legal knowledge
		Private Veterinary	
		surgery	
		Parasitology and	
		invasive diseases	
		Epizootology and	
		infectious diseases	
		Organization of	
		veterinary business	
		Mathematics	
		Fundamentals of	
		rhetoric and	
		communication	
		Introduction to the	
		specialty	
		Fundamentals of	
		Economics and	
IIV Q	The chility to proste and	Management	Votorinomy doontolo ~~
UK -8	The ability to create and	History Inorgania and	Veterinary deontology
	maintain safe living	Inorganic and	Laboratory diagnostics of infectious and
	conditions in everyday	analytical chemistry	invasive diseases
	life and in professional activities for the	Organic Chemistry	Organization of state
		Biological physics	e
	1	Physical and	veterinary supervision
	natural environment,	colloidal chemistry	

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	ensuring the sustainable	Life safety	
	development of society,	Biological chemistry	
	including in the event of	Veterinary	
	a threat and occurrence	microbiology and	
	of emergencies and	mycology	
	military conflicts.	Virology and	
		biotechnology	
		Veterinary	
		Radiobiology	
		Parasitology and	
		invasive diseases	
		Epizootology and	
		infectious diseases	
		Organization of	
		veterinary business	
		General and	
		veterinary ecology	
GPC-2	The ability to interpret	Biology with the	Forage plants
	and evaluate in	basics of ecology	Zoopsychology
	professional activity the	Veterinary genetics	Animal Health
	influence of natural,	Veterinary	Diseases of horses
	socio-economic, genetic	microbiology and	Diseases of productive
	and economic factors on	mycology	animals
	the physiological state	Virology and	Diseases of small pets
	of the animal organism.	biotechnology	Diseases of small pets
	of the annual organism.	Physiology and	Bee diseases and
		ethology of animals	entomophages
		Breeding with the	Fish pathology and
		basics of private	aquaculture
		-	Diseases of exotic
		animal husbandry	
		Animal health and	animals
		welfare	Anesthesiology,
		Pathological	intensive care and
		physiology	intensive care
		Veterinary	Dermatology
		Radiobiology	Cardiology
		Pathological	Endocrinology
		anatomy	Nephrology
		Instrumental	Veterinary
		diagnostic methods	Ophthalmology
		Toxicology	Animal Dentistry
		Obstetrics,	
		gynecology and	
		andrology	
		Internal non-	
		infectious diseases	
		General surgery	
		Private Veterinary	

		surgery	
		Parasitology and	
		invasive diseases	
		Epizootology and	
		infectious diseases	
		Forensic veterinary	
		examination and	
		autopsy of animals	
		Immunology	
		General and	
		veterinary ecology	
GPC-3	The ability to carry out	Jurisprudence	Technology of
	and improve	Life safety	processing livestock
	professional activities in	Breeding with the	products
	accordance with	basics of private	Veterinary deontology
	regulatory legal acts in	animal husbandry	Economics and
	the field of agro-	Veterinary	organization of
	industrial complex.	Pharmacology	agricultural production
		Toxicology	Laboratory diagnostics
		Parasitology and	of infectious and
		invasive diseases	invasive diseases
		Epizootology and	Organization of state
		infectious diseases	veterinary supervision
		Organization of	Veterinary and
		veterinary business	industrial laboratories
		General and	with the basics of design
		veterinary ecology	Career Management
			Fundamentals of social
			and legal knowledge
GPC -4	The ability to use	Inorganic and	Technology of
	methods of solving	analytical chemistry	processing livestock
	problems using modern	Organic Chemistry	products
	equipment in the	Biological physics	Medicinal and
	development of new	Computer science	poisonous plants
	technologies in	Physical and	Forage plants
	professional activity and	colloidal chemistry	Fundamentals of
	to use modern	Cytology, histology	intellectual work
	professional	and embryology	Personality psychology
	methodology for	Biological chemistry	and professional self-
	conducting	Veterinary	determination
	experimental research	microbiology and	Clinical laboratory
	and interpreting their	mycology	diagnostics
	results.	Virology and	Laboratory diagnostics
		biotechnology	of infectious and
		Physiology and	invasive diseases
		ethology of animals	Diseases of horses
1		Breeding with the	Lingangag at productiva
		basics of private	Diseases of productive animals

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		animal husbandry	Diseases of small pets
		Pathological	Diseases of small pets
		physiology	Bee diseases and
		Veterinary	entomophages
		Radiobiology	Fish pathology and
		Clinical diagnosis	aquaculture
		Pathological	Diseases of exotic
		anatomy	animals
		Operative surgery	Anesthesiology,
		with topographic	intensive care and
		anatomy	intensive care
		Instrumental	Dermatology
		diagnostic methods	Cardiology
		Toxicology	Endocrinology
		Obstetrics,	Nephrology
		gynecology and	Reconstructive and
		andrology	reconstructive surgery
		Internal non-	Veterinary
		infectious diseases	Ophthalmology
		General surgery	Animal Dentistry
		Private Veterinary	
		surgery	
		Parasitology and	
		invasive diseases	
		Epizootology and	
		infectious diseases	
		Mathematics	
		Immunology	
GPC -6	The ability to analyze,		Technology of
UrC -0		Biology with the	
	identify and assess the right of the	basics of ecology	processing livestock
	risk of the risk of the	Life safety	products Medicinal and
	occurrence and spread	Veterinary	
	of diseases.	microbiology and	poisonous plants
		mycology Viralaass and	Forage plants
		Virology and	Animal Health
		biotechnology	Clinical laboratory
		Animal health and	diagnostics
		welfare	Laboratory diagnostics
		Feeding animals	of infectious and
		with the basics of	invasive diseases
		feed production	Organization of state
		Veterinary	veterinary supervision
		Radiobiology	Diseases of horses
		Clinical diagnosis	Diseases of productive
		Pathological	animals
		anatomy	Diseases of small pets
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		Instrumental diagnostic methods	Diseases of small pets Bee diseases and

		Toxicology Obstetrics, gynecology and andrology Internal non-	entomophages Fish pathology and aquaculture Diseases of exotic animals
		infectious diseases General surgery Private Veterinary	Anesthesiology, intensive care and intensive care Veterinary
		surgery Parasitology and invasive diseases Epizootology and infectious diseases Veterinary and sanitary examination Organization of veterinary business Forensic veterinary examination and autopsy of animals Introduction to the	Ophthalmology Animal Dentistry
		specialty General and veterinary ecology	
PC -15	Ability to organize preventive immunizations (vaccinations), therapeutic and preventive treatments of animals in accordance with the plan of antiepizootic measures.	Virology and biotechnology Parasitology and invasive diseases Epizootology and infectious diseases Immunology	Bee diseases and entomophages Fish pathology and aquaculture
PC -17	Ability to organize disinfection and disinfection of livestock premises to ensure veterinary and sanitary well-being in accordance with the plan of veterinary and sanitary measures	Inorganic and analytical chemistry Organic Chemistry Physical and colloidal chemistry Life safety Veterinary microbiology and mycology Virology and biotechnology Veterinary Pharmacology	Animal Health
PC -20	Ability to develop an annual plan of	Veterinary microbiology and	Economics and organization of

PC -21	antiepizootic measures, a plan for the prevention of non-infectious animal diseases, a plan of veterinary and sanitary measures. The ability to carry out inspections of the veterinary and sanitary condition and microclimate of livestock premises in accordance with the plan of antiepizootic measures, the plan of prevention of non- infectious animal diseases, the plan of veterinary and sanitary measures	mycology Animal health and welfare Feeding animals with the basics of feed production Internal non- infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases Organization of veterinary business Fundamentals of Economics and Management Veterinary microbiology and mycology Virology and biotechnology Animal health and welfare Veterinary Radiobiology	agricultural production Animal Health Bee diseases and entomophages Fish pathology and aquaculture
PC -22	Ability to organize measures to protect the organization from the introduction of infectious and invasive diseases in accordance with the plan of antiepizootic measures.	Life safety Veterinary microbiology and mycology Virology and biotechnology Animal health and welfare Veterinary Pharmacology Private Veterinary surgery Parasitology and invasive diseases	Technology of processing livestock products Animal Health Laboratory diagnostics of infectious and invasive diseases Organization of state veterinary supervision Bee diseases and entomophages Fish pathology and aquaculture

PC -23	The ability to analyze the effectiveness of	1	Economics and organization of
	measures for the prevention of animal diseases in order to improve them.	animal husbandry Animal health and welfare Toxicology Internal non- infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases Veterinary and sanitary examination Organization of veterinary business Forensic veterinary examination and autopsy of animals Fundamentals of Economics and Management	agricultural production Animal Health Organization of state veterinary supervision Bee diseases and entomophages Fish pathology and aquaculture
PC -24	Ability and willingness to promote veterinary knowledge, including in the field of prevention of animal diseases.	Physiology and ethology of animals Breeding with the basics of private animal husbandry Animal health and welfare Feeding animals with the basics of feed production Pathological physiology Pathological anatomy Toxicology Obstetrics, gynecology and	Veterinary deontology Economics and organization of agricultural production Medicinal and poisonous plants Forage plants Zoopsychology Animal Health Diseases of horses Diseases of productive animals Diseases of small pets Diseases of small pets Bee diseases and entomophages Fish pathology and

	andrology Internal non- infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases Fundamentals of rhetoric and communication Introduction to the specialty General and veterinary ecology	aquaculture Diseases of exotic animals Dermatology Cardiology Endocrinology Nephrology Reconstructive and reconstructive surgery Veterinary Ophthalmology Animal Dentistry Foreign language for special purposes Russian for special purposes Foreign language. Translation of special texts Russian language. Translation of special texts Foreign language. Professional communications Russian language. Professional communications
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4. COURSE WORKLOAD AND TRAINING ACTIVITIES

Course workload of the discipline "Veterinary Sanitation" is 4 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	Semesters			
			7	-	-	-
Contact academic hours		54	54	-	-	-
including						
Lectures		18	18	-	-	-
Lab work		36	36	-	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		82	82	-	-	-
Evaluation and assessment (exam/pass/fail		8	8	-	-	-
grading)						
Course workload	Academic	144	144	-	-	-
Course workloau	hour					

Credit	4	4	-	-	-
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	Semesters			
			8	-	-	-
Contact academic hours		18	18	-	-	-
including						
Lectures		-	-	-	-	-
Lab work		18	18	-	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		106	106	-	-	-
Evaluation and assessment (exam/pass/fail		20	20	-	-	-
grading)						
	Academic	144	144	-	-	-
Course workload	hour					
Course workloau	Credit	4	4	-	-	-
	unit					

5. CONTENT OF THE DISCIPLINE

Table 5.1 Content of the discipline (module) by type of academic work

Name of the discipline section	Content of the section (topics)	Types of academic activities
Section 1. General and scientific foundations of veterinary sanitation.	Topic 1.1 Introduction to veterinary sanitation. Material and technical support.	Lectures, Lab work.
	Topic 1.2 Logistics.	Lectures, Lab work.
	Topic 1.3 General technology and mechanization of veterinary and sanitary measures.	Lectures, Lab work.
Section 2. Private and applied veterinary	Topic 2.1 Disinfection. Disinsection. Deratization.	Lectures, Lab work.
sanitation.	Topic 2.2 Veterinary sanitation of soil, air, water sources.	Lectures, Lab work.
	Topic 2.3 Decontamination and utilization of manure, animal waste.	Lectures, Lab work.

6. CLASSROOM INFRASTRUCTURE AND TECHNOLOGY SUPPORT REQUIREMENTS

Classroom for Academic Activity Type	Equipping the classroom	Specialized educational/laboratory equipment, software and materials for the development of the discipline (if necessary)
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.
Laboratory	An auditorium for laboratory work, individual consultations, routine monitoring and interim certification, equipped with a set of specialized furniture and equipment.	- Information stands.
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.	-

Table 6.1. Material and technical support of the discipline

7. RECOMMENDED SOURCES FOR COURSE STUDIES

Main reading:

- Seregin Ivan Georgievich. Veterinary and sanitary examination of feed: a textbook / I.G. Seregin, M.F. Borovkov, E.A. Karelina. - Electronic text data. - St. Petersburg : Quadro, 2020. - 456 p. <u>http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=487543&idb=0</u>
- Veterinary sanitation : a textbook / A.A. Sidorchuk, V.L. Krupalnik, N.I. Popov [et al.]. -2nd ed., erased. - St. Petersburg : Publishing House "Lan", 2018. - 368 p. <u>http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=466526&idb=0</u>

Additional Reading:

- 1. Kuznetsov A.F., Rodin V. I., Svetlichkin V.V., Yaremchuk V.P. Workshop on veterinary sanitation, zoo hygiene and bioecology. 1st ed. St. Petersburg: Lan, 2013. 512 p.
- 2. Volkov V.A. Theoretical foundations of environmental protection. 1st ed. St. Petersburg: Lan, 2015. 256 p.
- 3. Tsyganova S.V. Disinfection, disinsection, deratization at poultry farms of industrial type. Moscow: Aquarium-Print, 2012. 274 p.

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"<u>http://www.trmost.com/</u>
- 2. Databases and search engines:
- electronic fund of legal and regulatory and technical documentation http://docs.cntd.ru/
- search engine Yandex https://www.yandex.ru/
- search engine Google https://www.google.ru/
- 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 Sanitation ".
- 2. Laboratory workshop on the discipline "Veterinary Sanitation ".

* - 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 Sanitation** " 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 of the Department of Veterinary Medicine		Makarov V.V.
Position, Basic curriculum	Signature	Full name.
Associate Professor of the Department of Veterinary		
Medicine		Petrov A.K.
Position, Basic curriculum	Signature	Full name.

HEAD OF THE DEPARTMENT:

Vatnikov Yu.A. Full name.

HEAD OF THE HIGHER EDUCATION PROGRAM:

Director of the Department of Veterinary Medicine Position, Basic curriculum

Signature

Signature

Vatnikov Yu.A.