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ость: Проректор по учебно-воспитательной работе

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Ministry of Agriculture of the Russian Federation Federal State Budgetary Educational Institution higher education "Saint Petersburg State University

veterinary medicine"

APPROVED by the Vice-rector for educational work and youth Policy A. A. Sukhinin 25." June 2024

## WORK PROGRAM

## on educational clinical practice

Higher education level **SPECIALTY** Specialty 36.05.01 Veterinary Full-time education Start year of training-2024

> Reviewed and accepted at the meeting of the GEP and SIO Department "24" June 2024 Protocol No. 10

Head of the GEP and SIO Department, Assistant, candidate of veterinary Sciences

Saint-Petersburg

2024 г.

#### 1. GOALS AND OBJECTIVES OF THE PRACTICE

The purpose and objectives of clinical training practice include active participation of students in the work of a veterinarian:

- students master methods and methods of diagnosis and prevention of infectious and non-infectious diseases, treatment of agricultural and unproductive animals;
- study animal welfare systems and the impact of conditions on their health and productivity;
- features and organization of a veterinary pharmacy
- use of medicinal products as intended

#### 2. TYPES OF PRACTICE, METHODS AND FORMS OF ITS IMPLEMENTATION

Academic practice forms the second block of the curriculum and is divided into general professional practice, clinical and research work (obtaining primary skills in research work).

There are stationary and on-site ways of completing internships. The practice is conducted in a discrete form according to the periods of practical training by alternating in the calendar training schedule periods of study time for practical training with periods of study time for theoretical classes.

Methods and forms of conducting practical training and research work for persons with disabilities are established taking into account the group of health restrictions and the ability to complete the internship program in full.

# 3. A LIST OF PLANNED RESULTS OF TRAINING DURING THE INTERNSHIP, CORRELATED WITH THE PLANNED RESULTS OF MASTERING THE EDUCATIONAL PROGRAM;

Academic practice of students who master educational programs of higher education is a mandatory part of the educational program of higher education. This type of educational work is aimed at developing practical skills and abilities, as well as forming the competencies of students in the process of performing certain types of work related to future professional activities.

Practical training is an integral part of the training of qualified specialists who are able to adapt and work successfully in specialized organizations.

The purpose of practical training is to deepen, supplement and consolidate the theoretical and practical knowledge gained in the study of disciplines, apply practical skills acquired during the course of practical training, as well as collect, process and systematize materials for performing research work of students based on the study of indicators and features of the activities of specialized organizations.

Practical training develops and strengthens practical skills and contributes to the comprehensive formation of students 'competencies.

The planned results of the training practice are:

- consolidation of acquired theoretical and practical knowledge;
- systematization and deepening of the competencies formed during the development of the Veterinary Medicine program, their application in solving specific practical and scientific problems;
- acquaintance and study of the object of educational practice;
- gain experience in working in teams when dealing with professional issues;
- development of independent work skills and mastering the methodology for analyzing the main organizational performance indicators –of the practice base institution;

- collection, systematization, and processing of factual material on the organization
   and practice base;
- obtaining additional information necessary for students 'research work.

These tasks of educational practice relate to the following areas of professional activity:: 13 Agriculture and meet the types of tasks of professional activity provided for in the educational standard: medical, expert-control.

Implementation of the program of educational clinical practice should form the following competencies:

A) Learning competencies

UK-2 is able to manage a project at all stages of its life cycle

CC-2ID-1 Know the methods of presenting and describing the results of project activities, including those based on digital technologies; methods, criteria and parameters for evaluating the results of project implementation; principles, methods and requirements for project work.

UK-2ID-2 Be able to justify the theoretical and practical significance of the results obtained; check and analyze project documentation; predict the development of processes in the project professional field; put forward innovative ideas and non-standard approaches to their solution in order to implement the project; calculate qualitative and quantitative results, deadlines for project work.

UK-2ID-3 Master project management in the field of relevant professional activities, including on the basis of digital technologies; distribution of tasks and motivation to achieve goals; management of the development of the project specification, management of the implementation of specialized project work and the process of discussing and finalizing the project; participation in the development of the project specification, development of the project implementation program in professional area; organization of professional discussion of the project, participation in the management of project documentation; design of the project implementation schedule; determination of requirements for the results of project implementation.

UK-3 is able to organize and manage the team's work, developing a team strategy to achieve the goal.

UK-3ID-1 Know the problems of selecting an effective team; basic conditions for effective teamwork; fundamentals of strategic human resource management, regulatory legal acts related to the organization and implementation of professional activities; models of organizational behavior, factors in the formation of organizational relationships; strategies and principles of teamwork, the main characteristics of the organizational climate and interaction of team members in the organization.

UK-3ID-2 Be able to determine the management style and effectiveness of team management; develop a team strategy; apply the principles and methods of organizing team activities, including using digital technologies; choose methods and methods for studying professional practical tasks.

UK-3ID-3 Master the organization and management of team interaction in solving set goals, including using digital technologies; creating a team to perform practical tasks; participating in the development of a team work strategy; ability to work in a team.

CC-5 is able to analyze and take into account the diversity of cultures in the process of cross-cultural interaction

UK-5ID-1 Know the psychological foundations of social interaction aimed at solving professional problems; basic principles of organizing business contacts; methods of preparing for negotiations, national, ethno-cultural and confessional characteristics and folk traditions of the population; basic concepts of interaction in the organization, features of didactic interaction.

UK-5ID-2 To be able to present professional information competently and easily in the process of cross-cultural interaction, including through the use of digital technologies; to observe

ethical norms and human rights; to analyze the features of social interaction taking into account national, ethno-cultural, and confessional characteristics.

UK-5ID-3 Master the organization of productive interaction in a professional environment, taking into account national, ethno-cultural, confessional characteristics; overcoming communication, educational, ethnic, confessional and other barriers in the process of intercultural interaction; identifying the diversity of cultures in the process of intercultural interaction.

UK-7 is able to maintain the proper level of physical fitness to ensure full-fledged social and professional activities

UK-7ID-1 Know the basic means and methods of physical education.

UK-7ID-2 To be able to select and apply methods and means of physical culture to improve basic physical qualities.

UK-7ID-3 Master the methods and means of physical culture to ensure full-fledged social and professional activities.

UK-8 is able to create and maintain safe living conditions, including in the event of emergencies

UK-8ID-1 Know the consequences of exposure to harmful and dangerous factors on the body of animals, humans and the natural environment, methods and methods of protection from emergencies and military conflicts; basics of life safety, phone numbers of rescue services.

UK-8ID-2 To be able to identify signs, causes and conditions of emergency situations and military conflicts; to assess the likelihood of a potential danger to the student and take measures to prevent it in an educational institution; to provide first aid in emergency situations.

UK-8ID-3 Possess security skills in the "human-animal - habitat" system. Possess methods for predicting the occurrence of dangerous or emergency situations; skills in maintaining safe living conditions, including on the basis of digital technologies.

B) General professional competencies

OPK-1 is able to determine the biological status and normative clinical indicators of animal organs and body systems

OPK-1ID-1 Know safety techniques and personal hygiene rules when examining animals, methods of fixing them; schemes of clinical research of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

OPK-1ID-2 is able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals.

OPK-1ID-3 Possess practical skills in conducting an independent clinical examination of an animal using classical research methods and digital technologies.

OPK-2 is able to interpret and evaluate the influence of natural, socioeconomic, genetic and economic factors on the physiological state of the animal body in its professional activity

OPK-2ID-1 Know ecological factors of the environment, their classification and nature of relationships with living organisms; basic ecological concepts, terms and laws of bioecology; interspecific relations of animals and plants, predator and prey, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body.

OPK-2ID-2 Be able to use environmental factors and environmental laws in agricultural production; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine for the prevention of infectious and invasive diseases and treatment of animals; use environmental monitoring methods in the environmental expertise of agricultural facilities and the production of agricultural products, including: including using digital technologies; assess the impact of anthropogenic and economic factors on the animal body.

- OPK-2ID-3 Possess an idea of the origin of living organisms, the levels of organization of living matter, favorable and unfavorable factors affecting the body; the basis for studying the ecological knowledge of the surrounding world, the laws of development of nature and society; the skills of observation, comparative analysis, historical and experimental modeling of the impact of anthropogenic and economic factors on living objects, in particular including using digital technologies
- OPK-3 is able to carry out and improve professional activities in accordance with regulatory legal acts in the field of agro-industrial complex
- OPK-3ID-1 Know the basics of national and international veterinary legislation, legislation on digital technologies in the field of agriculture, specific rules and regulations governing veterinary activities at the local, national and international levels.
- OPK-3ID-2 Should be able to find up-to-date, up-to-date and reliable information about veterinary legislation, including, with the use of digital technologies, rules and regulations governing veterinary activities in a particular region and/or country.
- OPK-3ID-3 Possess the legal framework and ethical standards in the implementation of professional activities.
- OPK-4 is able to use professional methods of problem solving using modern equipment in the development of new technologies and use modern professional methodology for conducting experimental research and interpreting their results
- OPK-4ID-1 Know the technical capabilities of modern specialized equipment, methods for solving professional tasks.
- OPK-4ID-2 Should be able to apply modern technologies, including digital ones, and research methods in professional activities, and interpret the results obtained.
- OPK-4ID-3 Master the skills of working with specialized equipment for the implementation of tasks set during research and development of new technologies, including digital ones
- OPK-5 is able to draw up special documentation, analyze the results of professional activities and submit reporting documents using specialized databases
- OPK-5ID-1 is able to apply new information technologies to solve tasks in their professional activities, work with specialized information databases.
- OPK-5ID-2 Master the skills of working with the operating system, with text and table processors, with database management systems, with information and search engines on the Internet.
- OPK-5ID-3 To know new information technologies for solving tasks in their professional activities, to work with specialized information databases.
  - C) Professional competencies
- PC-1 Collecting anamnesis of animal life and disease to identify the causes of diseases, conducting a general clinical study of animals in order to establish a preliminary diagnosis and determine the further research program
- PC-1ID-1 Be able to collect and analyze information about the origin and purpose of animals, the method and conditions of keeping, feeding (animal life history), including from devices sensors, mechanisms, sensors, tags, etc.
- PC-1ID-2 should be able to collect and analyze information about the occurrence and manifestation of diseases in animals, previous illnesses, epizootological conditions (anamnesis of animal diseases), including from devices sensors, mechanisms, sensors, tags, etc.
  - PC-1ID-3 Be able to record animals to ensure safety during a clinical trial
- PC-1ID-4 Should be able to perform a clinical study of animals using general methods: examination, palpation, percussion, auscultation and thermometry
- PC-1ID-5 Be able to establish a preliminary diagnosis based on the analysis of anamnesis and clinical research using general methods

- PC-1ID-6 Know the methodology for collecting anamnesis of animal life and disease
- PC-1ID-7 Know the factors of animal life that contribute to the occurrence of infectious and non-communicable diseases
- PC-1ID-8 Know the forms and rules for filling out the journal for registration of sick animals and the animal's medical history, including in electronic form in accordance with the requirements of veterinary reporting
  - PK-1ID-9 Know methods of fixing animals during their clinical examination
- PC-1ID-10 Know the technique of conducting a clinical study of animals using general methods in accordance with the guidelines, instructions, rules for the diagnosis, prevention and treatment of animals
- PC-2 "Development of an animal research program and conducting a clinical study of animals using special (instrumental) and laboratory methods, including for clarifying the diagnosis"
- PC-2ID-1 Should be able to perform animal studies using digital equipment and using special (instrumental) methods, including endoscopy, probing, catheterization, radiography, electrocardiography, and echography
- PC-2ID-2 Be able to interpret and analyze data from special (instrumental) methods of animal research to verify the diagnosis
- PC-2ID-3 Should be able to determine the response of the cardiovascular system of animals to various loads by the method of functional tests
- PC-2ID-4 Be able to take samples of animal biological material for laboratory research
- PC-2ID-5 Should be able to perform analytical preparation, storage of the studied biological material, transportation to the laboratory
- PC-2ID-6 Be able to interpret and analyze data from laboratory methods of animal research to establish a diagnosis
- PC-2ID-7 Know the indications for the use of digital equipment and special (instrumental) and laboratory methods of animal research in accordance with the guidelines, instructions, rules for the diagnosis, prevention and treatment of animals
- PC-2ID-8 Know the Rules for safe operation of digital equipment, tools and equipment used in conducting special (instrumental) animal studies, including when conducting X-ray studies
- PC-2ID-9 Know the technique of conducting animal research using digital equipment and special (instrumental) methods in accordance with methodological guidelines, instructions, rules for the diagnosis, prevention and treatment of animals
- PK-2ID-10 To know methods and techniques of introduction of diagnostic and radiopaque substances into the animal's body
  - PK-2ID-11 Know the technique of setting up functional tests in animals
- PC-2ID-12 Know the method of sampling and analytical preparation of samples of biological material for performing laboratory tests in accordance with the instructional and methodological documents regulating the sampling of biological material
- PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory research methods
- PC-3ID-1 Be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases
- PC-3ID-2 Be able to use specialized information databases for the diagnosis of animal diseases
- PC-3ID-3 Be able to process the results of clinical animal studies using digital technologies

- PC-3ID-4 Know the methods of interpretation and analysis of data from special (instrumental) methods of animal research
- PC-3ID-5 Know the norms of indicators of the state of biological material of animals of different species and the reasons that cause deviations of indicators from the norms
  - PC-3ID-6 Know the etiology and pathogenesis of various animal diseases
- PC-3ID-7 Know the generally accepted criteria and classifications of animal diseases, approved lists of animal diseases
  - PC-5ID-6 Know the state register of medicinal products for veterinary use
- PK-5ID-7 Know the pharmacological and toxicological characteristics of medicinal raw materials, medicinal products of chemical and biological nature, biologically active additives for the prevention and treatment of animal diseases of various etiologies
- PC-7 Determination of the need to use operative and surgical methods in the treatment of animals, development of a surgical operation plan, including the choice of analgesia method
- PC-7ID-1 Be able to perform anesthesia of animals before surgery using narcotic, antipsychotic and local anesthetic drugs
- PC-7ID-2 To know operational methods of treatment of animals and indications for their use
- PK-7ID-3 Know the drugs. used for analgesia of animals in veterinary surgery. doses and methods of their use, side effects
- PC-8 Performing operative surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes
- PC-8ID-1 Be able to dissect animal tissues using surgical instruments to create operational access to the affected organ or tissues
- PC-8ID-2 Be able to perform surgical intervention using surgical instruments on the affected organ or tissues to ensure the effectiveness of surgical intervention
- PC-8ID-3 is able to stop bleeding using mechanical, physical, chemical and biological methods
- PC-8ID-4 Should be able to connect the tissue in bloodless and bloody ways, drain cavities, apply bandages using dressing and frame materials.
- PC-8ID-5 Know the rules for using special equipment in the operating room, surgical instruments and dressings
- PC-8ID-6 Know the technique of performing surgical operations in veterinary medicine
- PC-8ID-7 Know the types and techniques of suturing and dressing used in veterinary surgery
- PC-9 Development of recommendations for special feeding of sick animals for therapeutic purposes
- PC-9ID-1 Know the types of dietary regimens, principles of feed selection using digital technologies, norms, feeding modes in animal diet therapy
- PC-15 Organization of organizational and technical, zootechnical and veterinary measures aimed at the prevention of non-infectious diseases in accordance with the plan for the prevention of non-infectious animal diseases, analysis of the effectiveness of measures for the prevention of animal diseases in order to improve them
- PC-15ID-1 Be able to assess the impact of animal care and feeding conditions on their health as part of implementing action plans for the prevention of animal diseases using digital technologies
- PC-15ID-2 Should be able to assess the effectiveness of preventive measures and methods of their implementation, including using digital technologies

- PC-15ID-3 Be able to carry out veterinary quality control and preparation of animal feed in order to ensure their veterinary and sanitary safety as part of the implementation of action plans for the prevention of animal diseases
- PC-15ID-4 Be able to perform a diagnostic examination of animals within the framework of medical examination for timely detection of early preclinical and clinical signs of the disease
- PC-15ID-5 Know the types of measures for the prevention of non-infectious animal diseases and metabolic disorders in animals and the requirements for their implementation in accordance with methodological guidelines, instructions, instructions, rules for diagnosis, prevention and treatment of animals

#### 4. PLACE OF PRACTICE IN THE STRUCTURE OF OBOR

Educational clinical practice is a mandatory part of the second block of the curriculum (B2.O. 03(U)). The total labor intensity of educational clinical practice is 6 credits - 216 hours, the internship program is carried out by full-time students for 4 weeks in the 6th semester, full-time and part-time students for 4 weeks in the 8th semester, part-time students - in the 4th year for 4 weeks in accordance with the curriculum and schedule of the academic year. process in the specialty 36.05.01 Veterinary Medicine.

5. SCOPE OF EDUCATIONAL CLINICAL PRACTICE 5.1. Scope of full-time clinical training

Type of practice	Semester	TOTAL:	
Type of practice	6	IOIAL.	
Training clinical practice, week/hour / ZE	4/216/6	4/216/6	
Classroom work, hour, of which:	60	60	
Practical training (PP)	10	10	
Independent work, hour, of which:	156	156	
Practical training (PP)	108	108	
Type of intermediate certification	Credit-1	Credit	
TOTAL, week. / hour / SE:	4/216/6	4/216/6	

### 6. CONTENT OF EDUCATIONAL CLINICAL PRACTICE

Students 'development of the program of educational clinical practice is carried out in several stages: preparatory, production and final.

6.1. Content of educational clinical practice for full-time education

#	Stages (sections) practices	Content of the practice stage (section)	Labor intensity (hours/day )  Types of academic work, including independent work of students and labor intensity (in hours)  Classroom whi work, ch hour, of PP   PP   PP   PP   PP   PP   PP   P			Seme ster	Form of current control and prom.attes tations			
			Compete		Classroom work, hour., of	whi ch PP	Independe nt work, hour., of which:	PP		
11	preparatory	Obtaining and studying questions of an individual task of practical training, organizational meeting at the supervising department, familiarization with the requirements of occupational safety in the performance of work, fire safety and sanitary standards, as well as requirements for writing a diary, etc. preparation of a practice report. Arrival at the place of practice, familiarization with the organization of work and the specifics of the work of the profile organization.	A) Learning competencies CC-2 is able to manage a project at all stages of its life cycle CC-2ID-1 Knows how to present and describe the results of project activities, including on the basis of digital technologies; methods, criteria and parameters for evaluating project results; principles, methods and requirements for project work. UK-2ID-2 Be able to justify the theoretical and practical significance of the results obtained; check and analyze project documentation; predict the development of processes in the project professional field; put forward innovative ideas and non- standard approaches to their solution in order to implement the project; calculate qualitative and	1,8\0,05	0,5	0,08	1,3	0.9	6	Current (marks of the head of practice in documents and report forms)

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	quantitative results, deadlines for				
	project work.				
	UK-2ID-3 Master project				
	management in the field of				
	relevant professional activities,				
	including on the basis of digital				
	technologies; distribution of tasks				
	and motivation to achieve goals;				
	management of the development of				
	the project specification,				
	management of the				
	implementation of specialized				
	project work and the process of				
	discussing and finalizing the				
	project; participation in the				
	development of the project				
	specification, development of the				
	project implementation program in				
	professional area; organization of				
	professional discussion of the				
	project, participation in the				
	management of project				
	documentation; design of the				
	project implementation schedule;				
	determination of requirements for				
	the results of project				
	implementation.				
	UK-3 is able to organize and				
	manage the work of a team,				
	developing a team strategy to				
	achieve the set goal				
	UK-3ID-1 Know the				
	problems of selecting an effective				
	team; the main conditions for				
	effective teamwork; the basics of				
	strategic human resource				
	management, regulatory legal acts				
	related to the organization and				
	implementation of professional				
	activities; models of organizational				

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	behavior, factors in the formation
	of organizational relations;
	strategies and principles of
	teamwork, the main characteristics
	of the organizational climate and
	interaction of team members in the
	organization.
	UK-3ID-2 Be able to
	determine the management style
	and effectiveness of team
	management; develop a team
	strategy; apply the principles and
	methods of organizing team
	activities, including using digital
	technologies; choose methods and
	methods for studying professional
	practical tasks.
	UK-3ID-3 Master the
	organization and management of
	team interaction in solving set
	goals, including the use ofdigital
	technologies; creating a team to
	perform practical tasks;
	participating in the development of
	a team work strategy; ability to
	work in a team.
	UK-5 is able to analyze and take
	into account the diversity of
	cultures in the process of cross-
	cultural interaction
	UK-5ID-1 Know the
	psychological foundations of social
	interaction aimed at solving
	professional problems; basic
	principles of organizing business
	contacts; methods of preparing for
	negotiations, national, ethno-
	cultural and confessional
	characteristics and folk traditions of
	the population; basic concepts of
	are population, outre concepts of

	interaction in the organization,	
	features of didactic interactions.	
	UK-5ID-2 To be able to	
	present professional information	
	competently and easily in the	
	process of cross-cultural	
	interaction, including through the	
	use of digital technologies; to	
	observe ethical norms and human	
	rights; to analyze the features of	
	social interaction taking into	
	account national, ethno-cultural,	
	and confessional characteristics.	
	UK-5ID-3 Master the	
	organization of productive	
	interaction in a professional	
	environment, taking into account	
	national, ethno-cultural,	
	confessional characteristics;	
	overcoming communication,	
	educational, ethnic, confessional	
	and other barriers in the process of	
	intercultural interaction; identifying	
	the diversity of cultures in the	
	process of intercultural interaction.	
	UK-7 is able to maintain the	
	proper level of physical fitness to	
	ensure full-fledged social and	
	professional activities	
	UK-7ID-1 Know the basic	
	means and methods of physical	
	education.	
	UK-7ID-2 To be able to	
	select and apply methods and	
	means of physical culture to	
	improve basic physical qualities.	
	UK-7ID-3 Master the	
	methods and means of physical	
	culture to ensure full-fledged social	
	and professional activities.	

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UK-8 is able to create and				
maintain safe living conditions,				
including in the event of				
emergencies				
UK-8ID-1 Knows the				
consequences of exposure to				
harmful and dangerous factors on				
the body of animals, humans and				
the natural environment, methods				
and methods of protection from				
emergencies and military conflicts;				
basics of life safety, phone numbers				
of rescue services.				
UK-8ID-2 To be able to				
identify signs, causes and				
conditions of emergency situations				
and military conflicts; to assess the				
likelihood of a potential danger to				
the student and take measures to				
prevent it in an educational				
institution; to provide first aid in				
emergency situations.				
UK-8ID-3 Possess security				
skills in the "human-animal -				
habitat" system. Possess methods				
for predicting the occurrence of				
dangerous or emergency situations;				
skills in maintaining safe living				
conditions, including on the basis of				
digital technologies.				
B) General professional				
competencies				
of OPK-1 Able to				
determine the biological status and				
regulatory clinical indicators of				
animal organs and body systems				
OPK-1ID-1 Know				
safety and personal hygiene rules				
when examining animals, methods				
of fixing them; schemes of clinical				
of fixing them, senemes of efficient	1	1		1

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		research of an animal and the
		procedure for studying individual
		body systems, including using
		digital technologies; methodology
		for recognizing the pathological
		process.
		OPK-1ID-2 is able to collect
		and analyze anamnestic data,
		conduct laboratory and functional
		studies using digital computer
		technologies necessary to determine
		the biological status of animals.
		OPK-1ID-3 Possess
		practical skills in conducting an
		independent clinical examination of
		an animal using classical research
		methods and digital technologies.
		OPK-2 is able to
		interpret and evaluate in
		professional activity the influence
		of natural, socio-economic, genetic
		and economic factors on the
		physiological state of the animal
		body
		OPK-2ID-1 Know
		environmental factors of the
		environment, their classification
		and the nature of relationships with
		living organisms; basic ecological
		concepts, terms and laws of
		bioecology; interspecific relations
		of animals and plants species of
		pathogenic microorganisms;
		mechanisms of influence of
		anthropogenic and economic
		factors on the animal body.
		OPK-2ID-2 Be able to use
		environmental factors and
		environmental laws in agricultural
		production; apply the achievements
		production, appry the define venticities

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	of modern microbiology and			
	ecology of microorganisms in			
	animal husbandry and veterinary			
	medicine for the prevention of			
	infectious and invasive diseases and			
	treatment of animals; use			
	environmental monitoring methods			
	in the environmental expertise of			
	agricultural facilities and the			
	production of agricultural products,			
	including: including using digital			
	technologies; assess the impact of			
	anthropogenic and economic			
	factors on the animal body.			
	OPK-2ID-3 Possess an idea of the			
	origin of living organisms, the			
	levels of organization of living			
	matter, favorable and unfavorable			
	factors affecting the body; the basis			
	for studying the ecological			
	knowledge of the surrounding			
	world, the laws of development of			
	nature and society; the skills of			
	observation, comparative analysis,			
	historical and experimental			
	modeling of the impact of			
	anthropogenic and economic			
	factors on living objects, in			
	particular including, with the use of			
	digital technologies			
	, OPK-3 is able to carry out and			
	improve professional activities in			
	accordance with regulatory legal			
	acts in the field of the agro-			
	industrial complex			
	OPK-3ID-1 Knows the basics			
	of national and international			
	veterinary legislation, legislation on			
	digital technologies in the field of			
	the agro-industrial complex,			

specific rules and regulations
governing veterinary activities at
the local, national and
internationally.
OPK-3ID-2 Should be able to
find up-to-date, up-to-date and
reliable information about
veterinary legislation, including,
with the use of digital technologies,
rules and regulations governing
veterinary activities in a particular
region and/or country.
OPK-3ID-3 Possess the legal
framework and ethical standards
when carrying out professional
activities.
OPK-4 is able to use in
professional activity methods of
problem solving using modern
equipment in the development of
new technologies and use modern
professional methodology for
conducting experimental research
and interpreting their results
OPK-4ID-1 Know the
technical capabilities of modern
specialized equipment, methods
for solving problems of
professional activity.
OPK-4ID-2 Should be able to
apply modern technologies,
including digital ones, and
research methods in professional
activities, and interpret the results
obtained.
OPK-4ID-3 Possess the skills of
working with specialized
equipment for the implementation
of tasks set during research and

development of new technologies,
including digital
OPK-5 is able to draw up special
documentation, analyze the results
of professional activities and
submit reporting documents using
specialized databases
OPK-5ID-1 Is able to apply
new information technologies to
solve the following tasks: perform
tasks set in their professional
activities, work with specialized
information databases.
OPK-5ID-2 Master the skills of
working with the operating system,
with text and table processors, with
database management systems,
with information and search
engines on the Internet.
OPK-5ID-3 To know new
information technologies for
solving tasks in their professional
activities, to work with specialized
information databases.
C) Professional competencies
PC-1 Collecting
anamnesis of animal life and
disease to identify the causes of
diseases, conducting a general
clinical study of animals in order
to establish a preliminary diagnosis
and determine the further research
program
PC-1ID-1 Be able to collect
and analyze information about the
origin and purpose of animals, the
method and conditions of keeping,
feeding (life history
PC-1ID-2 Be able to collect
and analyze information about the

	occurrence and manifestation of
	diseases in animals, previous
	illnesses, epizootological
	conditions (anamnesis of animal
	diseases), including from devices –
	sensors, mechanisms,tags, etc
	. PC-1ID-3 Be able to record
	animals to ensure safety during the
	clinical study
	PC-1ID-4 Be able to
	conduct a clinical study of animals
	using general methods:
	examination, palpation,
	percussion, auscultation and
	thermometry
	PC-1ID-5 Be able to
	establish a preliminary diagnosis
	based on the analysis of anamnesis
	and general methods of clinical
	research
	PC-1ID-6 Know the
	methodology for collecting
	anamnesis of animal life and
	disease
	PC-1ID-7 Know the factors
	of animal life that contribute to the
	occurrence of infectious and non-
	communicable diseases
	PC-1ID-8 Know the forms
	and rules for filling out the journal
	for registration of sick animals and
	the animal's medical history,
	including in electronic form in in
	accordance with the requirements
	of veterinary reporting
	or veterinary reporting
	PC-1ID-9 Know methods
	of fixation of animals in the
	conduct of their clinical
	examinations

	PC-2ИД-6 to be able to
	carry the interpretation and
	analysis of data from laboratory
	studies of animals, the diagnosis
	of land and a second a second and a second a second and a second a second and a second a second and a second a second a second and a se
	PC-2ИД-7 to Know the
	indications for the use of digital
	equipment and special
	(instrumental) and laboratory
	studies of animals in accordance
	with the guidelines, instructions,
	rules, diagnosis, prevention and
	treatment of animals
	PK-2ИД-8 to Know the
	Rules of safe operation with digital
	equipment, tools and equipment
	used when carrying out special
	(instrumental) studies of animals,
	including when carrying out x-ray
	studies of
	PC-2ИД-9 to Know the
	technique of conducting animal
	research using digital equipment
	and special (instrumental) methods
	in accordance with the guidelines,
	instructions, rules, diagnosis, the
	prevention and treatment of animal
	PK-2ИД-10 to Know the
	methods and technique of
	introducing diagnostic and
	radiopaque material into the
	animal
	PK-2ИД-11 to Know the
	technique of production of
	functional tests in animals
	PK-2ИД-12 to Know the
	methods of sampling and
	analytical sample preparation of
	biological material for laboratory
	analysis in accordance with the

methodological documents
regulating the sampling of
biological material
PC-3 diagnosis based
on the analysis of anamnesis,
General, special (instrumental) and
laboratory studies
of PC-3ИД-1 to be able to
carry out the diagnosis in
accordance with generally
accepted criteria and
classifications, lists of animal
diseases
PK-3ИД-2 be able to use
specialized information databases
for the diagnosis of animal
diseases
PK-3ИД-3 to be Able to
issue the results of clinical studies
of animals with the use of digital
technologies
PC-3ИД-4 to Know the
interpretation and analysis of data
special (instrumental) methods for
the study of animal
PK-3ИД-5 Know the norms
of indicators of the state of
biological material of animals of
different species and the reasons
that cause deviations of indicators
from the norms
of PK-3ID-6 Know the
etiology and pathogenesis of
animal diseases of various types
PK-3ID-7 Know generally
accepted criteria and
classifications of animal diseases,
approved lists of animal diseases
PK-5ID-6 Know the state
register of medicines for veterinary

ensure the effectiveness of the
operational impact
PC-8ИД-3 to be able to stop
the bleeding with the use of
mechanical, physical, chemical
and biological methods
PC-8ИД-4 to be able to
produce fabric connection
bloodless and bloody ways of the
cavity drainage, dressing, using the
dressing and frame material
PC-8ИД-5 to Know the
rules of use of special equipment
in the operating room, surgical
instruments and dressings
PC-8ИД-6 to Know the
technique of surgery in veterinary
medicine
PC-8ИД-7 to Know the
types and techniques of sutures
medicine PC-8ИД-7 to Know the types and techniques of sutures and dressings used in veterinary surgery PC-9 Development of recommendations for the special feeding of sick animals for therapeutic purposes PK-9ИД-1 Know the types of dietary regimes, the principles of the selection of food with the use of digital technologies, norms, modes of feeding in the diet of animals

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	effectiveness of interventions for
	the prevention of animal diseases
	with the aim of improving
	PC-15ИД-1 to be able to
	evaluate the influence of the
	conditions of keeping and feeding
	animals on their state of health in
	the framework of the
	implementation of action plans for
	the prevention of animal diseases
	with the use of digital technologies
	PC-15ИД-2 Be able to assess
	the effectiveness of preventive
	measures and methods of their
	implementation, including the use
	of digital technologies
	PC-15ID-3 Be able to carry
	out veterinary quality control and
	preparation of animal feed in order
	to ensure their veterinary and
	sanitary safety in the framework of
	the implementation of action plans
	for the prevention of animal
	diseases
	PC-15ID-4 Be able to
	clinical examination diagnostic
	examination of animals for timely
	detection of early preclinical and
	clinical signs of the disease
	PK-15ID-5 Know the types
	of measures for the prevention of
	non-infectious diseases of animals
	and metabolic disorders in animals
	and the requirements for their
	implementation in accordance with
	the guidelines, instructions,
	instructions, rules for diagnosis,
	prevention and treatment of
	animals

professional area; organization of
professional discussion of the
project, participation in the
management of project
documentation; design of the
project implementation schedule;
determination of requirements for
the results of project
implementation.
UK-3 is able to organize and
manage the work of a team,
developing a team strategy to
achieve the set goal
UK-3ID-1 Know the
problems of selecting an effective
team; the main conditions for
effective teamwork; the basics of
strategic human resource
management, regulatory legal acts
related to the organization and
implementation of professional
activities; models of organizational
behavior, factors in the formation
of organizational relations;
strategies and principles of
teamwork, the main characteristics
of the organizational climate and
interaction of team members in the
organization.
UK-3ID-2 Be able to
determine the management style
and effectiveness of team
management; develop a team
strategy; apply the principles and
methods of organizing team
activities, including using digital
technologies; choose methods and
methods for studying professional
practical tasks.
UK-3ID-3 Master the

organization and management of
team interaction in solving set
goals, including using digital
technologies; creating a team to
perform practical tasks;
participating in the development of
a team work strategy; ability to
work in a team.
UK-5 is able to analyze and take
into account the diversity of
cultures in the process of cross-
cultural interaction
UK-5ID-1 Know the
psychological foundations of social
interaction aimed at solving
professional problems; basic
principles of organizing business
contacts; methods of preparing for
negotiations, national, ethno-
cultural and confessional
characteristics and folk traditions of
the population; basic concepts of
interaction in the organization,
features of didactic interactions.
UK-5ID-2 To be able to
present professional information
competently and easily in the
process of cross-cultural
interaction, including through the
use of digital technologies; to
observe ethical norms and human
rights; to analyze the features of
social interaction taking into
account national, ethno-cultural,
and confessional characteristics.
UK-5ID-3 Master the
organization of productive
interaction in a professional
environment, taking into account
national, ethno-cultural,

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	confessional characteristics;
	overcoming communication,
	educational, ethnic, confessional
	and other barriers in the process of
	intercultural interaction; identifying
	the diversity of cultures in the
	process of intercultural interaction.
	UK-7 is able to maintain the
	proper level of physical fitness to
	ensure full-fledged social and
	professional activities
	UK-7ID-1 Know the basic
	means and methods of physical
	education.
	UK-7ID-2 To be able to
	select and apply methods and
	means of physical culture to
	improve basic physical qualities.
	UK-7ID-3 Master the
	methods and means of physical
	culture to ensure full-fledged social
	and professional activities.
	UK-8 Able to create and
	maintain safe living conditions,
	including in the event of
	emergencies
	UK-8ID-1 Know the
	consequences of exposure to
	harmful and dangerous factors on
	the body of animals, humans and
	the natural environment, methods
	and methods of protection from
	emergencies and military conflicts;
	basics of life safety, phone numbers
	of rescue services.
	UK-8ID-2 To be able to
	identify signs, causes and
	conditions of emergency situations
	and military conflicts; to assess the
	likelihood of a potential danger to

the student and take measures to
prevent it in an educational
institution; to provide first aid in
emergency situations.
UK-8ID-3 Possess security
skills in the "human-animal -
habitat" system. Possess methods
for predicting the occurrence of
dangerous or emergency situations;
skills in maintaining safe living
conditions, including on the basis of
digital technologies.
B) General professional
competencies
OPK-1 is able to determine the
biological status and regulatory
clinical indicators of animal organs
and body systems
OPK-1ID-1 Knows
safety techniques and personal
hygiene rules when examining
animals, how to fix them; schemes
for clinical research of an animal
and the procedure for studying
individual body systems, including
using digital technologies;
methodology recognition of a
pathological process.
OPK-1ID-2 is able to collect
and analyze anamnestic data,
conduct laboratory and functional
studies using digital computer
technologies necessary to determine
the biological status of animals.
OPK-1ID-3 Possess
practical skills in conducting an
independent clinical examination of
an animal using classical research
methods and digital technologies.
OPK-2 Able to interpret and

	evaluate in professional activity the
	influence of natural, socio-
	economic, genetic and economic
	factors on the physiological state of
	the animal body
	OPK-2ID-1 To know
	environmental factors of the
	environment, their classification
	and the nature of relationships with
	living organisms; basic ecological
	concepts, terms and laws of
	bioecology; interspecific relations
	of animals and plants, predator, etc.
	victims, parasites and hosts;
	ecological features of some types of
	pathogenic microorganisms;
	mechanisms of influence of
	anthropogenic and economic
	factors on the animal body.
	OPK-2ID-2 Be able to use
	environmental factors and
	environmental laws in agricultural
	production; apply the achievements
	of modern microbiology and
	ecology of microorganisms in
	animal husbandry and veterinary
	medicine for the prevention of
	infectious and invasive diseases and
	treatment of animals; use
	environmental monitoring methods
	in the environmental expertise of
	agricultural facilities and the
	production of agricultural products,
	including: including using digital
	technologies; assess the impact of
	anthropogenic and economic
	factors on the animal body.
	OPK-2ID-3 Possess an idea of the
	origin of living organisms, the
	levels of organization of living

matter. favorable and unfavorable factors affecting the body; the basis for studying the ecological knowledge of the surrounding world, the laws of development of nature and society; the skills of observation, comparative analysis, historical and experimental modeling of the impact of anthropogenic and economic factors on living objects, in particular including, with the use of digital technologies of Jopes Society of the skills of objects, in particular including, with the use of digital technologies of the improve professional activities in accordance with regulatory legal acts in the field of the agroindustrial complex OPK-31D-1 Knows the basics of national and international veterinary legislation, legislation of digital technologies in the field of the agroindustrial complex, specific rules and regulations governing veterinary activities at the local, national and internationally.  OPK-31D-2 Should be able to find up-o-date, up-to-date and reliable information about veterinary activities in a particular region and/or country.  OPK-31D-3 Possess the logal framework and ethical standards in the implementation of professional activities.	_	<u> </u>	T	1	 	-	
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	OPK-4 is able to use in				
	professional activity methods of				
	problem solving using modern				
	equipment in the development of				
	new technologies and use modern				
	professional methodology for				
	conducting experimental research				
	and interpreting their results				
	OPK-4ID-1 Know the				
	technical capabilities of modern				
	specialized equipment, methods				
	for solving problems of				
	professional activity.				
	OPK-4ID-2 Should be able to				
	apply modern technologies,				
	including digital ones, and				
	research methods in professional				
	activities, and interpret the results				
	obtained.				
	OPK-4ID-3 Master the skills of				
	working with specialized				
	equipment for the implementation				
	of tasks set during research and				
	development of new technologies,				
	including digital				
	OPK-5 He is able to draw up				
	special documentation, analyze the				
	results of professional activities				
	and submit reporting documents				
	using specialized databases				
	of OPK-5ID-1 . He is able to				
	apply new information				
	technologies to solve tasks in his				
	professional activities, work with				
	specialized information databases.				
	OPK-5ID-2 Master the skills of				
	working with the operating system,				
	with text and table processors, with				
	database management systems,				
	with information and search				

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	engines on the Internet.
	OPK-5ID-3 To know new
	information technologies for
	solving tasks in their professional
	activities, to work with specialized
	information databases.
	C) Professional competence
	PK-1 Collection of an
	anamnesis of life and disease of
	animals to identify the causes of
	diseases, the holding of the
	General clinical pet study with the
	aim of establishing a preliminary
	diagnosis and follow-up research
	program
	PC-1ID-1 to be able to
	collect and analyse information
	about the origin and destination of
	the animals, the method and
	conditions, feeding (history of
	animals), including devices,
	sensors, mechanisms, sensors,
	labels, etc.
	PC-1ID-2 to be able to
	collect and analyse information
	about the origin and manifestation
	of the disease in animals
	previously transferred diseases,
	epizootic situation (the clinical
	history of animals), including
	devices, sensors, mechanisms,
	sensors, labels, etc.
	PC-1ID-3 to be able to
	capture animals for safety during
	clinical trials of
	PC-1ID-4 to be able to
	produce a clinical study of the
	animals using the General
	methods: inspection, palpation,
	percussion, auscultation and
	percussion, auscuntation and

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		thermometry
		PC-1ID-5 be able to
		establish a preliminary diagnosis
		based on the analysis of anamnesis
		and clinical studies General
		methods
		PC-1ID-6 to Know the
		methods of collecting anamnesis of
		life and disease animal
		PC-1ID-7 to Know the
		factors of life, contributing to the
		emergence of infectious and non-
		infectious diseases
		PC-1ID-8 to Know the
		forms and rules of filling of the
		journal for sick animals and
		medical history of the animal,
		including the electronic form in
		accordance with the requirements
		of veterinary reporting
		or recormany reporting
		PC-1ID-9 to Know the
		methods of fixation of animals in
		the conduct of their clinical
		examinations
		PC-1ID-10 to Know the
		technique of conducting a clinical
		pet study using the General
		methods in accordance with the
		guidelines, instructions, rules,
		diagnosis, prevention and
		treatment of animals
		PK-2 "development of a
		program of studies in animals and
		clinical studies of animals with the
		use of special (instrumental) and
		laboratory methods including
		diagnosis"
		PC-2ИД-1 to be Able to
		research animals with the help of

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	digital equipment and with the use
	of special (instrumental)
	techniques, including endoscopy,
	intubation, catheterization,
	radiography, electrocardiography,
	echocardiography
	PC-2ИД-2 be able to carry
	out the interpretation and analysis
	of data special (instrumental)
	methods animal study to verify the
	diagnosis of
	PC-2ИД-3 To be able to
	determine the reaction of the
	cardiovascular system of animals
	at various load method of
	functional tests
	PC-2ИД-4 to be Able to
	take samples of the biological
	material of animals for laboratory
	studies of
	PC-2ИД-5 to be able to
	perform analytical preparing,
	storing the studied biological
	material, transportation to the
	laboratory
	PC-2ИД-6 to be able to
	carry the interpretation and
	analysis of data from laboratory
	studies of animals, the diagnosis of
	PC-2ИД-7 to Know the
	indications for the use of digital
	equipment and special
	(instrumental) and laboratory
	animal research in accordance with
	the guidelines, instructions, rules,
	diagnosis, prevention and
	treatment of animals
	PK-2ИД-8 to Know the
	Rules of safe operation with digital
	equipment, tools and equipment
<u></u>	equipment, tools and equipment

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	used when carrying out special
	(instrumental) studies of animals,
	including when carrying out x-ray
	studies of
	PC-2ИД-9 to Know the
	technique of conducting animal
	research using digital equipment
	and special (instrumental) methods
	in accordance with the guidelines,
	instructions, rules, diagnosis, the
	prevention and treatment of animal
	PK-2ИД-10 to Know the
	methods and technique of
	introducing diagnostic and
	radiopaque material into the
	animal
	PK-2ИД-11 to Know the
	technique of production of
	functional tests in animals
	PK-2ИД-12 to Know the
	methods of sampling and
	analytical sample preparation of
	biological material to perform
	laboratory tests in accordance with
	methodological documents
	regulating the sampling of
	biological material
	PC-3 diagnosis based
	on the analysis of anamnesis,
	General, special (instrumental) and
	laboratory studies
	of PC-3ИД-1 to be able to
	carry out the diagnosis in
	accordance with generally
	accepted criteria and
	classifications, lists of animal
	diseases
	PK-3ИД-2 be able to use
	specialized information databases
	for the diagnosis of animal

diseases
PK-3ИД-3 to be Able to
issue the results of clinical studies
of animals with the use of digital
technologies
PC-3ИД-4 to Know the
interpretation and analysis of data
special (instrumental) methods for
the study of animal
PK-3ИД-5 rules to Know
indicators of the status of
biological material of animals of
different types and causes, causes
of deviations from norms
PC-3ИД-6 to Know the
etiology and pathogenesis of
diseases of animals of various
types of
PC-3ИД-7 to Know the
current criteria and classification
of diseases of animals, approved
lists of animal diseases
РК-5ИД-6 Know the state
register of medicinal products for
veterinary use
PC-5ИД-7 to Know the
pharmacological and Toxicological
characteristics of pharmaceutical
raw materials, medicines, chemical
and biological nature, dietary
supplements for the prevention and
treatment of animal diseases of
various etiologies
PC-7 determine whether the use
of operative-surgical methods in
treatment of animals, the
development plan for the surgery,
including the choice of the method
of anesthesia
PC-7ИД-1 Be able to

	perform anesthesia of animals
	before surgery using narcotic,
	antipsychotic and local anesthetic
	drugs
	PC-7ID-2 Know the
	operational methods of treatment
	of animals and indications for their
	use
	PC-7ID-3 Know the drugs. used
	for analgesia of animals in
	veterinary surgery. doses and
	methods of their use, side effects
	PK-8 prompt surgical
	intervention in the body of animals
	in the treatment of various
	diseases, castration, sterilization,
	for cosmetic purposes
	PK-8ИД-1 to be able to
	make a dissection of the animal's
	tissues, using surgical tools to
	create operational access to the
	affected organ or tissue
	PK-8ИД-2 be able to carry
	out surgery using surgical tools to
	the affected organ or tissue to
	ensure the effectiveness of the
	operational impact
	PC-8ИД-3 to be able to stop
	the bleeding with the use of
	mechanical, physical, chemical
	and biological methods
	PC-8ИД-4 to be able to
	produce fabric connection
	bloodless and bloody ways of the
	cavity drainage dressing with
	dressing and using frame material
	PC-8ИД-5 to Know the
	rules of use of special equipment
	in the operating room, surgical
	instruments and dressings

PC-8ИД-6 to Know the
technique of surgery in veterinary
medicine
PC-8ИД-7 to Know the
types and techniques of sutures
and dressings used in veterinary
surgery
PC-9 Development of
recommendations for the special
feeding of sick animals for
therapeutic purposes
РК-9ИД-1 Know
the types of dietary regimes, the
principles of the selection of food
with the use of digital
technologies, norms, modes of
feeding in the diet of animals
PK-15 Organization
organizational, technical,
zootechnical and veterinary
measures aimed at prevention of
non-communicable diseases in
accordance with the terms of
prevention of non-communicable
diseases of animals, analysis of the
effectiveness of interventions for
the prevention of animal diseases
with the aim of improving
PC-15ИД-1 to be able to
evaluate the influence of the
conditions of keeping and feeding
animals on their state of health in
the framework of the
implementation of action plans for
the prevention of animal diseases
with the use of digital technologies
PC-15ИД-2 be able to assess
the effectiveness of preventive
measures and their
implementation, including with the

			use of digital technologies PC-15ИД-3 be able to carry out veterinary quality control and fodder for the animals to ensure their veterinary and sanitary safety in the framework of the implementation of action plans for the prevention of animal diseases PK-15ИД-4 to be able to produce through clinical examination, diagnostic testing of animals for the timely detection of early preclinical and clinical signs of illness PC-15ИД-5 to Know the types of interventions for the prevention of non-communicable diseases and metabolic disorders in animals, and requirements to conduct them in accordance with the guidelines,							
			regulations, instructions, rules, diagnosis, the prevention and treatment of the animals A) Training competencies							
3	final	Preparation of the practice report	of the CC-2 Able to manage a project at all stages of its life cycle UK-2ID-1 Know how to present and describe the results of project activities, including on the basis of digital technologies; methods, criteria and parameters for evaluating the results of project implementation; principles, methods and requirements for project work. UK-2ID-2 Be able to justify the theoretical and practical significance of the results obtained; check and analyze	36\1	10	1,67	26	18	6	interim assessment (protection practice report; offset)

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		project documentation; predict the
		development of processes in the
		project professional field; put
		forward innovative ideas and non-
		standard approaches to their
		solution in order to implement the
		project; calculate qualitative and
		quantitative results, deadlines for
		project work.
		UK-2ID-3 Master project
		management in the field of
		relevant professional activities,
		including on the basis of digital
		technologies; distribution of tasks
		and motivation to achieve goals;
		management of the development of
		the project specification,
		management of the
		implementation of specialized
		project work and the process of
		discussing and finalizing the
		project; participation in the
		development of the project
		specification, development of the
		project implementation program in
		professional area; organization of
		professional discussion of the
		project, participation in the
		management of project
		documentation; design of the
		project implementation schedule;
		determination of requirements for
		the results of project
		implementation.
		UK-3 is able to organize and
		manage the work of a team,
		developing a team strategy to
		achieve the set goal
		UK-3ID-1 Know the
		problems of selecting an effective
		problems of selecting an effective

team; the main conditions for	
effective teamwork; the basics of	
strategic human resource	
management, regulatory legal acts	
related to the organization and	
implementation of professional	
activities; models of organizational	
behavior, factors in the formation	
of organizational relations;	
strategies and principles of	
teamwork, the main characteristics	
of the organizational climate and	
interaction of team members in the	
organization.	
UK-3ID-2 Be able to	
determine the management style	
and effectiveness of team	
management; develop a team	
strategy; apply the principles and	
methods of organizing team	
activities, including using digital	
technologies; choose methods and	
methods for studying professional	
practical tasks.	
UK-3ID-3 Master the	
organization and management of	
team interaction in solving set	
goals, including using digital	
technologies; creating a team to	
perform practical tasks;	
participating in the development of	
a team work strategy; ability to	
work in a team.	
UK-5 is able to analyze and take	
into account the diversity of	
cultures in the process of cross-	
cultural interaction	
UK-5ID-1 Know the	
psychological foundations of social	
interaction aimed at solving	

professional problems; basic
principles of organizing business
contacts; methods of preparing for
negotiations, national, ethno-
cultural and confessional
characteristics and folk traditions of
the population; basic concepts of
interaction in the organization,
features of didactic interactions.
UK-5ID-2 Be able to present
professional information
competently and easily in the
process of cross-cultural
interaction, including through the
use of digital technologies; observe
ethical norms and human rights;
analyze the features of social
interaction taking into account
national, ethno-cultural, and
confessional characteristics.
UK-5ID-3 Master the
organization of productive
interaction in a professional
environment, taking into account
national, ethno-cultural,
confessional characteristics;
overcoming communication,
educational, ethnic, confessional
and other barriers in the process of
intercultural interaction; identifying
the diversity of cultures in the
process of intercultural interaction.
UK-7 is able to maintain the
proper level of physical fitness to
ensure full-fledged social and
professional activities
UK-7ID-1 Know the basic
means and methods of physical
education.
UK-7ID-2 To be able to

	select and apply methods and
	means of physical culture to
	improve basic physical qualities.
	UK-7ID-3 Master the
	methods and means of physical
	culture to ensure full-fledged social
	and professional activities.
	UK-8 is able to create and
	maintain safe living conditions,
	including in the event of
	emergencies
	UK-8ID-1 Knows the
	consequences of exposure to
	harmful and dangerous factors on
	the body of animals, humans and
	the natural environment, methods
	and methods of protection from
	emergencies and military conflicts;
	basics of life safety, phone numbers
	of rescue services.
	UK-8ID-2 To be able to
	identify signs, causes and
	conditions of emergency situations
	and military conflicts; to assess the
	likelihood of a potential danger to
	the student and take measures to
	prevent it in an educational
	institution; to provide first aid in
	emergency situations.
	UK-8ID-3 Possess security
	skills in the "human-animal -
	habitat" system. Possess methods
	for predicting the occurrence of
	dangerous or emergency situations;
	skills in maintaining safe living
	conditions, including on the basis of
	digital technologies.
	B) General professional
	competencies
	OPK-1 is able to determine the
	OTE 1 15 dole to determine the

biological status and regulatory
clinical indicators of animal organs
and body systems
OPK-1ID-1 Knows
safety techniques and personal
hygiene rules when examining
animals, how to fix them; schemes
for clinical research of an animal
and the procedure for studying
individual body systems, including
using digital technologies;
methodology recognition of a
pathological process.
OPK-1ID-2 is able to collect
and analyze anamnestic data,
conduct laboratory and functional
studies using digital computer
technologies necessary to determine
the biological status of animals.
OPK-1ID-3 Possess
practical skills in conducting an
independent clinical examination of
an animal using classical research
methods and digital technologies.
OPK-2 Able to interpret and
evaluate in professional activity the
influence of natural, socio-
economic, genetic and economic
factors on the physiological state of
the animal body
OPK-2ID-1 To know
environmental factors of the
environment, their classification
and the nature of relationships with
living organisms; basic ecological
concepts, terms and laws of
bioecology; interspecific relations
of animals and plants, predator, etc.
victims, parasites and hosts;
ecological features of some types of

	pathogenic microorganisms;
	mechanisms of influence of
	anthropogenic and economic
	factors on the animal body.
	OPK-2ID-2 Be able to use
	environmental factors and
	environmental laws in agricultural
	production; apply the achievements
	of modern microbiology and
	ecology of microorganisms in
	animal husbandry and veterinary
	medicine for the prevention of
	infectious and invasive diseases and
	treatment of animals; use
	environmental monitoring methods
	in the environmental expertise of
	agricultural facilities and the
	production of agricultural products,
	including: including using digital
	technologies; assess the impact of
	anthropogenic and economic
	factors on the animal body.
	OPK-2ID-3 Possess an idea of the
	origin of living organisms, the
	levels of organization of living
	matter, favorable and unfavorable
	factors affecting the body; the basis
	for studying the ecological
	knowledge of the surrounding
	world, the laws of development of
	nature and society; the skills of
	observation, comparative analysis,
	historical and experimental
	modeling of the impact of
	anthropogenic and economic
	factors on living objects, in
	particular including, with the use of
	digital technologies
	, OPK-3 is able to carry out and
	improve professional activities in

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	accordance with regulatory legal				
	acts in the field of the agro-				
	industrial complex				
	OPK-3ID-1 Knows the basics				
	of national and international				
	veterinary legislation, legislation on				
	digital technologies in the field of				
	the agro-industrial complex,				
	specific rules and regulations				
	governing veterinary activities at				
	the local, national and				
	internationally.				
	OPK-3ID-2 Should be able to				
	find up-to-date, up-to-date and				
	reliable information about				
	veterinary legislation, including,				
	with the use of digital technologies,				
	rules and regulations governing				
	veterinary activities in a particular				
	region and/or country.				
	OPK-3ID-3 Possess the legal				
	framework and ethical standards in				
	the implementation of professional				
	activities.				
	detivities.				
	OPK-4 is able to use in				
	professional activity methods of				
	problem solving using modern				
	equipment in the development of				
	new technologies and use modern				
	professional methodology for				
	conducting experimental research				
	and interpreting their results				
	OPK-4ID-1 Know the				
	technical capabilities of modern				
	specialized equipment, methods				
	for solving problems of				
	professional activity. OPK-4ID-2 Should be able to				
	apply modern technologies,				

	including digital ones, and
	research methods in professional
	activities, and interpret the results
	obtained.
	OPK-4ID-3 Master the skills of
	working with specialized
	equipment for the implementation
	of tasks set during research and
	development of new technologies,
	including digital
	OPK-5 He is able to draw up
	special documentation, analyze the
	results of professional activities
	and submit reporting documents
	using specialized databases
	of OPK-5ID-1 . He is able to
	apply new information
	technologies to solve tasks in his
	professional activities, work with
	specialized information databases.
	OPK-5ID-2 Master the skills of
	working with the operating system,
	with text and table processors, with
	database management systems,
	with information and search
	engines on the Internet.
	OPK-5ID-3 To know new
	information technologies for
	solving tasks in their professional
	activities, to work with specialized
	information databases.
	C) Professional competence
	PK-1 Collection of an
	anamnesis of life and disease of
	animals to identify the causes of
	diseases, the holding of the
	General clinical pet study with the
	diagnosis and follow-up research
	program
	aim of establishing a preliminary diagnosis and follow-up research

PC-1ID-1 to be able to
collect and analyse information
about the origin and destination of
the animals, the method and
conditions, feeding (history of
animals), including devices,
sensors, mechanisms, sensors,
labels, etc.
PC-1ID-2 to be able to
collect and analyse information
about the origin and manifestation
of the disease in animals
previously transferred diseases,
epizootic situation (the clinical
history of animals), including
devices, sensors, mechanisms,
sensors, labels, etc.
PC-1ID-3 to be able to
capture animals for safety during
clinical trials of
PC-1ID-4 to be able to
produce a clinical study of the
animals using the General
methods: inspection, palpation,
percussion, auscultation and
thermometry
PC-1ID-5 be able to
establish a preliminary diagnosis
based on the analysis of anamnesis
and clinical studies General
methods
PC-1ID-6 to Know the
methods of collecting anamnesis of
life and disease animal
PC-1ID-7 to Know the
factors of life, contributing to the
emergence of infectious and non-
infectious diseases
PC-1ID-8 to Know the
forms and rules of filling of the

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	journal for sick animals and
	medical history of the animal,
	including the electronic form in
	accordance with the requirements
	of veterinary reporting
	PC-1ID-9 to Know the
	methods of fixation of animals in
	the conduct of their clinical
	examinations
	PC-1ID-10 to Know the
	technique of conducting a clinical
	pet study using the General methods in accordance with the
	guidelines, instructions, rules,
	diagnosis, prevention and
	treatment of animals
	PK-2 "development of a
	program of studies in animals and
	clinical studies of animals with the
	use of special (instrumental) and
	laboratory methods including
	diagnosis"
	PC-2ИД-1 to be Able to
	research animals with the help of
	digital equipment and with the use
	of special (instrumental)
	techniques, including endoscopy,
	intubation, catheterization,
	radiography, electrocardiography,
	echocardiography
	PC-2ИД-2 be able to carry
	out the interpretation and analysis
	of data special (instrumental)
	methods animal study to verify the
	diagnosis of
	PC-2ИД-3 To be able to
	determine the reaction of the
	cardiovascular system of animals
	at various load method of
	at various road ilictifod of

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	functional tests				
	PC-2ИД-4 to be Able to				
	take samples of the biological				
	material of animals for laboratory				
	studies of				
	PC-2ИД-5 to be able to				
	perform analytical preparing,				
	storing the studied biological				
	material, transportation to the				
	laboratory				
	PC-2ИД-6 to be able to				
	carry the interpretation and				
	analysis of data from laboratory				
	studies of animals, the diagnosis of				
	PC-2ИД-7 to Know the				
	indications for the use of digital				
	equipment and special				
	(instrumental) and laboratory				
	studies of animals in accordance				
	with the guidelines instructions,				
	rules, diagnosis, prevention and				
	treatment of animals				
	PK-2ИД-8 to Know the				
	Rules of safe operation with digital				
	equipment, tools and equipment				
	used when carrying out special				
	(instrumental) studies of animals,				
	including when carrying out x-ray				
	studies of				
	PC-2ИД-9 to Know the				
	technique of conducting animal				
	technique of conducting animal research using digital equipment and special (instrumental) methods in accordance with the guidelines, instructions, rules, diagnosis, the prevention and treatment of animal				

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	animal					
	PK-2ИД-11 to Know the					
	technique of production of					
	functional tests in animals					
	PK-2ИД-12 to Know the					
	methods of sampling and					
	analytical sample preparation of					
	biological material for laboratory					
	analysis in accordance with the					
	methodological documents					
	regulating the sampling of					
	biological material					
	PC-3 diagnosis based					
	on the analysis of anamnesis,					
	General, special (instrumental) and					
	laboratory studies					
	of PC-3ИД-1 to be Able to					
	carry out the diagnosis in					
	accordance with generally					
	accepted criteria and					
	classifications, lists of animal					
	diseases					
	PK-3ИД-2 be able to use					
	specialized information databases					
	for the diagnosis of animal					
	diseases					
	PK-3ИД-3 to be Able to					
	issue the results of clinical studies					
	of animals with the use of digital					
	technologies					
	PC-3ИД-4 to Know the					
	interpretation and analysis of data					
	special (instrumental) methods for					
	the study of animal					
	PK-3ИД-5 rules to Know					
	indicators of the status of					
	biological material of animals of					
	different types and causes, causes					
	of deviations from norms					
	PC-3ИД-6 to Know the					
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etiology and pathogenesis of	
diseases of animals of various	
types of	
PC-3ИД-7 to Know the	
current criteria and classification	
of diseases of animals, approved	
lists of animal diseases	
PK-5ИД-6 Know the state	
register of medicinal products for	
veterinary use	
PC-5ИД-7 to Know the	
pharmacological and Toxicological	
characteristics of pharmaceutical	
raw materials, medicines, chemical	
and biological nature, dietary	
supplements for the prevention and	
treatment of animal diseases of	
various etiologies	
PC-7 determine whether the use	
of operative-surgical methods in	
treatment of animals, the	
development plan for the surgery,	
including the choice of the method of anesthesia	
PC-7ИД-1 Be able to	
perform anesthesia of animals	
before surgery using narcotic,	
antipsychotic and local anesthetic	
drugs	
PC-7ID-2 Know the	
operational methods of treatment	
of animals and indications for their	
use	
PC-7ID-3 Know the drugs. used	
for analgesia of animals in	
veterinary surgery. doses and	
methods of their use, side effects	
PK-8 prompt surgical	
intervention in the body of animals	
in the treatment of various	

diseases, castration, sterilization,
for cosmetic purposes
PK-8ИД-1 to be able to
make a dissection of the animal's
tissues, using surgical tools to
create operational access to the
affected organ or tissue
PK-8ИД-2 be able to carry
out surgery using surgical tools to
the affected organ or tissue to
ensure the effectiveness of the
operational impact
PC-8ИД-3 to be able to stop
the bleeding with the use of
mechanical, physical, chemical
and biological methods
PC-8ИД-4 to be able to
produce fabric connection
bloodless and bloody ways of the
cavity drainage, dressing, using the
dressing and frame material
PC-8ИД-5 to Know the
rules of use of special equipment
in the operating room, surgical
instruments and dressings
PC-8ИД-6 to Know the
technique of surgery in veterinary
medicine
PC-8ИД-7 to Know the
types and techniques of sutures
and dressings used in veterinary
surgery
PC-9 Development of
recommendations for the special
feeding of sick animals for
therapeutic purposes
РК-9ИД-1 Know
the types of dietary regimes, the
principles of the selection of food
with the use of digital

	interventions for the prevention of non-communicable diseases and metabolic disorders in animals, and requirements to conduct them in accordance with the guidelines, regulations, instructions, rules, diagnosis, the prevention and treatment of animal						
TOTAL:		216\6	60	10	156	108	

# 6.1. Content of educational clinical practice in the discipline "Animal hygiene"

#### 1. Analysis of the state of livestock farms.

Direction and specialization of farms. Structure of farm premises (complex), technology of animal husbandry. Methods and systems of animal husbandry. Sanitary gaps between buildings. Paddocks, playgrounds and courtyards. Cubic capacity and indoor area per animal. Dimensions of stalls, machines, cages, feeders, manure and feed passages number of windows, their size.

Installation of ventilation, heating, and manure harvesting systems for forage distribution. The presence and nature of litter, its consumption rates.

Use of UV and IR lamps.

Hygiene of rearing young animals, compliance with sanitary and hygienic requirements for the care of the mother's body and newborn animals.

Care for the skin, limbs and hooves of animals.

Hygiene of milk production. Milking methods, udder care, primary milk processing and transportation. Washing and disinfection of milking machines, washing dishes, and milk lines.

Complex of sanitary and hygienic measures: compliance with preventive breaks and their duration, sanitation of premises, disinfection, deratization.

Completing the herd, observing the principle "everything is empty – everything is occupied". Quarantine of animals.

Based on the results of the conducted research, provide in the report an act of zoohygienic examination of one animal husbandry premises (see appendix) or *prepare* a photo album or video. passport of one animal husbandry premises (see appendix) or prepare a photo album or video.

Certification of water sources and sanitary and topographical description of the water source (according to the room you selected for analysis).

Sources of water supply for livestock farms, the amount of water in them; the volume of water consumed by the farm per day; organoleptic assessment of water and laboratory data on chemical and bacteriological analysis of water. Sanitary and hygienic condition of water sources. Organization of water supply and watering of animals during stable and pasture periods. Cleaning and disinfection of drinking water carried out on farms. Analysis of the morbidity of animals and poultry when using poor-quality water.

# State of veterinary and veterinary-sanitary facilities and structures.

- a) The availability of veterinary clinics and pharmacies, the operating mode of veterinary and sanitary checkpoints, dezblokov, sanitary slaughterhouses.
- b) *Manure storage facilities.* Methods of manure removal, transportation of manure to the manure storage facility. Manure storage device. Methods of manure storage, biothermal disinfection. Availability and arrangement of liquid collectors.
- c) Sewage treatment plants. Installation of sewage treatment plants. Methods of wastewater treatment and disinfection.

# 2. Feed shop equipment. Sanitary and hygienic assessment of feed quality.

Availability, arrangement of the feed shop and technology of feed preparation for feeding.

Silage harvesting, laying, tamping, silage shelter in trenches (pay special attention to the location and arrangement of silage trenches!). Harvesting and storage of other feed (haylage, hay).

Take feed samples and send them to the laboratory for research. Organoleptic evaluation of feed. Toxicomycological laboratory analysis of feed. Diseases of animals when using poor quality feed.

# 3. Pasture keeping of animals.

Formation of droves. Inspection and veterinary and sanitary assessment of pastures. Preparation of pastures for grazing animals. Poisonous plants found in pasture and the presence of cases of poisoning of animals. Build a herbarium.

Choosing a place to set up a summer camp. Setting up a summer camp for dairy cattle and pigs.

Mode and organization of pasture maintenance of various animal species and groups (number of pens, duration of grazing, distances between farms and pastures, duration and distance of runs).

# Certificate of zoohygienic examination

- 1) The name of the farm, the direction of its specialization.
- 2) Brief description of natural conditions (climate, soil, topography).
- 3) The main composition of the livestock and its age, productivity, method of maintenance.
- 4) Location of the farm (distance from other farms, localities, roads, veterinary buildings, pastures, etc.).
- 5) Characteristics of the farm site (area, soil, topography, ground water level, direction of prevailing winds).
  - 6) Organization of pasture, pasture-camp, and stable-camp animal husbandry.
- 7) Availability of manure storage facilities and treatment facilities (technology of their operation).
- 8) Standard project number, availability of project documentation when the building was built.
  - 9) The size of sanitary protection zones for a given livestock (poultry) enterprise.
  - 10) The size of zoo-veterinary gaps in relation to other livestock (poultry) buildings.
  - 11) Placement of farm buildings (master plan).
  - 12) Dimensions of the room (area, cubic capacity).
- 13) The area of the stall, machine, group cage, box. Construction material, sanitary condition.
  - 14) Size of feeders.
  - 15) Feeding front and feed distribution mechanization.
  - 16) Sanitary condition of feeders and feed shops.
  - 17) Water supply (type of drinkers, sanitary condition of drinkers).
- 18) passageways in the room manure, feed, forage manure, evacuation (dimensions, construction material, sanitary condition).
  - 19) The type of tether.
- 20) The system of ventilation structures (mechanical or natural supply and exhaust, the cross-sectional area of exhaust pipes and their number, the cross-sectional area of supply channels and their number, the presence of heaters, the location of elements of ventilation equipment in the room, the sanitary condition of ventilation structures).
- 21) Illumination (number of windows, size of window frames, single or double glazing, light coefficient-SC, height of windows above the floor, presence of artificial infrared and ultraviolet radiation sources.
  - 22) The number of gates or doors, their size. Availability of vestibules.
  - 23) The presence of an attic room or a combined roof.
- 24) manure removal system and mechanisms (mobile manure removal facilities, stationary manure removal facilities, other manure removal systems, sanitary condition of the manure removal system).
- 25) Manure storage method. Method of decontamination of manure. Disposal of manure (manure).
- 26) Disinfection, disinsection, deratization, control of stray animals (by whom it is performed,

quality of work, regularity, availability of documents).

- 27) Staffing of service personnel and veterinary specialists(according to the staffing table, in fact).
  - 28) The state of organization of veterinary training for farm workers.
- 29) Organization of a sanitary day on the farm. The role of the veterinary service in conducting the sanitary day.
- 30) Determination and evaluation of indoor microclimatic parameters (air temperature, relative humidity in%, air mobility in m / s, air cooling capacity in mcal / cm sq./sec, natural illumination in lux, specific power of electric lighting in w/sq. m., gas concentration (ammonia-in mg/m.carbon dioxide in%, hydrogen sulfide in mg / cubic meter, carbon monoxide in mg/cubic meter).
  - 31) Conclusion on the survey of the farm premises.
- 32) Suggestions and recommendations for eliminating deficiencies and improving the veterinary and sanitary condition on the farm.

# 6.2. Content of educational clinical practice in the discipline "Clinical diagnostics"

# **General diagnostics**

In the course of practice, the student conducts a clinical examination of animals using basic research methods (examination, palpation, percussion, auscultation, thermometry), learns the ability to correctly use medical, technical and veterinary equipment (sounding, ECG, ultrasound, X-ray and other research methods), tools and equipment for laboratory and diagnostic purposes. Master the rules for collecting blood, urine, and other substrates for laboratory analysis.

#### 1. General animal research.

Clinical study plan, patient registration, and anamnestic data collection. Definition of habitus. Examination of the skin, superficial lymph nodes and mucous membranes. Thermometry.

# 2. Research of the cardiovascular system.

Study of the heartbeat. Practicing techniques of percussion and auscultation of the heart in different animal species, recognizing changes in the boundaries of cardiac dullness and heart tones, the presence of heart murmurs. Determination of the frequency, rhythm, quality of arterial pulse and blood pressure. Venous pulse examination. Development of methods of functional diagnostics of the cardiovascular system.

# 3. Examination of the respiratory system.

Development of methods and techniques for studying nasal discharge, nasal cavity and adnexal cavities, larynx, trachea, and thyroid gland. The technique of percussion and chest auscultation in different animal species is normal and pathological. Functional methods of respiratory research.

# 4. Study of the digestive system.

Research of food and drink intake, oral cavity, pharynx, esophagus (in birds – goiter), probing of esophagus, pre-pancreas and abomasum in cattle and small cattle, stomach in horses, pigs, dogs and cats. Study of the intestines, bowel movements, liver and spleen in different animal species.

# 5. Examination of the urinary system.

Examination of the act of urination, kidneys, bladder, urethra. Laboratory examination of urine.

# 6. Research of the nervous system.

Development of techniques for clinical research of animal behavior, skull, spine, surface and deep sensitivity, analyzers, motor sphere, reflexes, and the autonomic nervous system.

# 7. Additional research.

Blood testing (methods for obtaining blood from different animal species, blood stabilization, determination of the morphological and chemical composition of blood).

Urine testing (receiving, storing, studying the physical and chemical properties of urine, microscopy of urine sediment).

Fecal examination (sample collection, physical properties, chemical examination of fecal matter, microscopy).

b) special research methods

Mastering the methods of probing, catheterization, biopsy, electrocardiography, X-ray and ultrasound examinations and other methods. It is performed only under the supervision of teachers or veterinarians.

The intern should evaluate the effectiveness of dispensary monitoring of healthy and sick animals, organize and monitor the implementation of mass diagnostic and therapeutic measures aimed at previously identifying sick animals. Correct use of clinical documentation, management of medical history.

# 6.3. Content of educational clinical practice in the discipline "Veterinary pharmacology. Toxicology"

# 1. Introduction to the veterinary pharmacy:

- a) placement, equipment and maintenance of a veterinary pharmacy;
- b) a list of the nomenclature of medicinal substances available in the pharmacy and used on the farm;
- c) storage of medicinal substances and biologics, the presence of warehouses for storing biologics, deodorants, cabinets and specially equipped places for storing strong and toxic substances;
  - d) accounting of medicines;
  - e) availability of veterinary first-aid kits in livestock farms, their equipment.

#### 2. Work in a veterinary pharmacy:

prescribing various dosage forms: powders, tablets, ointments, liniments, potions, solutions. Preparation of dosage forms according to prescriptions. Preparation of disinfection solutions.

#### 3. Mastering the following methods:

applications of various medicinal and poisonous plants that grow in the field of practice, and a description of the danger of toxic plants.

The report must include:

- 1. The organization of the pharmacy and its material support (dishes, cabinets, tools, dressings). Medication accounting and documentation.
- 2. Storage conditions for medicinal products (toxic and potent), as well as vaccines, serums, dezsredstv, etc.).
  - 3. Methods of sterilization of dosage forms for injection.
- 4. What dosage forms had to be prepared during the practice and describe the methods of preparing liquid dosage forms.
  - 5. Methods of drug administration (which methods were mastered during practice).
- 6. List of medicines available in the pharmacy. Present by groups (depressing CNS, excitatory CNS, laxatives, diuretics, etc.) with the form of release and annotations to them.
- 7. Note in your diary what medicinal plants were used to treat various diseases in animals. In what dosage form they were at the same time and indicate the method of its preparation. Submit a herbarium of 5-10 medicinal and poisonous plants (well designed).

CONCLUSION: all the positive and negative aspects in the work of the pharmacy (in your opinion) should be reflected in the diary or report.

# 6.4. Content of educational clinical practice in the discipline "Operative surgery with topographic anatomy"

- 1. To study the conditions of performing surgical operations in the conditions of providing assistance to animals with surgical diseases.
- 2. Get acquainted with the operating room equipment and preparation of the operating room, instruments, dressings, medicines and preparations for anesthesia and immobilization during operations on animals.
- 3. To study ways of preparing the surgeon's hands and the operating field in animals during operations and medical procedures in surgically ill animals.
- 4. Work out ways to fix animals during surgical operations and medical procedures.
- 5. Participate in performing operations on animals, in providing surgical care.
- 6. Get acquainted with the instructions and instructions for drugs that are used in the provision of surgical care to animals. with the establishment of surgical work in veterinary institutions and livestock farms, with the organization of mass economic operations of farm animals.

# 6.5. Content of educational clinical practice in the discipline "Veterinary microbiology and mycology"

Familiarization with the diagnostic laboratory, safety techniques, general principles and methods of microbiological and virological diagnostics.

Preparation and forwarding of the research material. Familiarization with the preparation of accompanying documents.

Study of the basic basic techniques that allow conducting bacteriological and virological research.

Statement and accounting of the results of the main serological reactions (RA, RID, RSC, ELISA, etc.).

Participation in mass events aimed at preventing and controlling infectious diseases.

Get acquainted with biologics used for the diagnosis and specific prevention of infectious diseases of animals.

# 7. FORMS OF REPORTING ON EDUCATIONAL CLINICAL PRACTICE

The completed work on mastering the program of educational clinical practice should be presented in detail to students in the diary and practice report. The diary is filled out by the student every day with a detailed description of the work done in the appropriate form.

# Diary form

Date	Completed work	Results of the work done	Notes (marks of the head of the practice)
1	2	3	4

In the practice report, the student should submit materials on such disciplines as animal hygiene, clinical diagnostics, veterinary pharmacology, toxicology, operative surgery with topographic anatomy, veterinary microbiology and mycology on issues in accordance with the content of the practice.

The practice report should be issued in electronic format and then printed out or filled out by hand. A4 sheets., in accordance with established requirements(Size Font the and font type: size 14, Times New Roman, underline, font type use of bold not recommended. Page margins: Left indent is cm, Right indent - 2 cm, Top and bottom indent-2 cm. Paragraph indent - 1.25 cm.)

Protection of diaries and reports on practice is carried out at a meeting of the supervising department. Based on the results of defending the practice report, students are certified in the form of an undifferentiated test. Implementation of the internship program, keeping a diary, preparation and protection of the internship report can be carried out using distance learning technologies.

# 8. LIST OF EDUCATIONAL LITERATURE AND INTERNET RESOURCES REQUIRED FOR MASTERING THE INTERNSHIP PROGRAM

#### 8.1. Basic literature

- 1. 10. Kuznetsov A. F., Nikitin G. S. Modern technologies and hygiene of poultry keeping: A textbook. St. Petersburg: Lan PublishingHouse, 2022-352 p. https://e.lanbook.com/book/3737 (date of request: June 24, 2024).
- 2. 12. Kuznetsov A. F., Hygiene of animal husbandry: textbook; edited by A. F. Kuznetsov. St. Petersburg: Lan Publ., 2020, 380 phttps://e.lanbook.com/book/92947. https://e.lanbook.com/book/92947 .(date of request: June 24, 2024).
- 3. 7. Kuznetsov A. F., Rodin V. I. et al. Praktikum po veterinarnoi sanitarii, zoohygiene i bioekologi Lan', 2017. 512 p. (in Russian) https://e.lanbook.com/reader/book/121299 (date of request: June 24, 2024).
- 4. 9. Kuznetsov A. F., Tyurin V. G., Semenov V. G. [et al.] Private zoohygiena. Praktikum: uchebnoe posobie St. Petersburg: Lan Publ., 2019, 460 p. (in Russian) https://e.lanbook.com/book/118635 (date of request: June 24, 2024).
- 5. Vasiliev, V. K. General surgery: a textbook / V. K. Vasiliev, A. P. Popov, A.D. Tsybikzhapov. Saint-Petersburg: Lan, 2022. 272 p. ISBN 978-5-8114-1686-8. Text: electronic / Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/51936 (date of request: June 24, 2024).
- 6. Vasiliev Yu. G., Troshin E. I., Lyubimov A. I. Veterinary clinical hematology : a textbook. Saint-Petersburg: Lan, 2022. 656 p. ISBN 978-5-8114-1811-4. Text: electronic // Electronic library system "Lan" : [website]. URL: <a href="https://e.lanbook.com/book/60226">https://e.lanbook.com/book/60226</a> (date of request: June 24, 2024).

- 7. Vashchekin E. P., Malovastyi K. S. Veterinary prescription: a textbook. 2nd ed., ster. Saint-Petersburg: Lan, 2022. 240 p. ISBN 978-5-8114-1040-8. Text: electronic / / Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/91907 (date of request: June 24, 2024).
- 8. Veterinary pharmacy: textbook / N. L. Andreeva, G. A. Nozdrin, A.M. Lunegov [et al.].-Saint Petersburg: Lan, 2020. 452 p. ISBN 978-5-8114-4573-8. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/126918 (date of request: June 24, 2024).
- 9. Videnin V. N., Semenov B. S. Operative treatment of abdominal wall defects in animals: a textbook. Saint-Petersburg: Lan, 2015. 224 p. ISBN 978-5-8114-1938-8. Text: electronic // Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/65052">https://e.lanbook.com/book/65052</a> (date of request: June 24, 2024).
- 10. Zemlyankin V. V. Instrumental methods of diagnostics: methodological guidelines. Samara: SamGAU Publ., 2019, 32 p. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/123529 (date of request: June 24, 2024).
- 11. Ivanov A. A. Klinicheskaya laboratornaya diagnostika : uchebnoe posobie [Clinical laboratory diagnostics: a textbook]. Saint-Petersburg: Lan, 2017. 432 p. ISBN 978-5-8114-2400-9. Text: electronic / / Electronic library system "Lan" : [website]. URL: <a href="https://e.lanbook.com/book/91073">https://e.lanbook.com/book/91073</a> (date of request: June 24, 2024).
- 12. Clinical diagnostics of internal diseases of animals: textbook / S. P. Kovalev, A. P. Kurdeko, E. L. Bratushkina [et al.]; edited by S. P. Kovalev [et al.].-3rd ed., ispr. St. Petersburg: Lan, 2019.-540 p. ISBN 978-5-8114-1607-3. Text: electronic // Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/112567">https://e.lanbook.com/book/112567</a> (date of request: June 24, 2024).
- 13. Korolev B. A., Skosyrskikh L. N., Liberman E. L. Praktikum po toksikologii : uchebnik [Practical work on toxicology: textbook]. Saint-Petersburg: Lan Publ., 2016. 384 p. ISBN 978-5-8114-2246-3. Text: electronic / / Electronic library system "Lan" : [website]. URL: <a href="https://e.lanbook.com/book/87580">https://e.lanbook.com/book/87580</a> (date of request: June 24, 2024).
- 14. Short dictionary of microbiological, virological, immunological and epizootological terms: dictionary / R. G. Gosmanov, N. M. Kolychev, A. A. Novitsky, R. Kh. Ravilov. Saint Petersburg: Lan Publ., 2017, 304 p. ISBN 978-5-8114-2413-9. Text: electronic // Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/89929">https://e.lanbook.com/book/89929</a> (date of request: June 24, 2024).
- 15. Laboratory diagnostics of infectious diseases: a textbook / R. G. Gosmanov, R. Kh. Ravilov, A. K. Galiullin [et al.].-Saint Petersburg: Lan, 2018. 196 p. ISBN 978-5-8114-3025-3. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/104868 (date of request: June 24, 2024).
- 16. Meleshkov S. F., Belopolsky V. A. Instrumental methods of diagnostics, Part I. Radiological methods of diagnostics: a textbook / S. F. Meleshkov, V. A. Belopolsky. Omsk: Omsk State Agrarian University, 2016. 52 p. Text: electronic / / Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/90726">https://e.lanbook.com/book/90726</a> (date of request: June 24, 2024).
- 17. Sapozhnikov A. F., Konopeltsev I. G., Andreeva S. D., Bakina T. A. Local anesthesia and methods of novocaine therapy of animals: an educational and methodical manual. Saint-Petersburg: Lan, 2022. 176 p. ISBN 978-5-8114-1162-7. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/1545 (date of request: June 24, 2024).
- 18. Metody diagnostiki boleznykh sel'skikh zhivotnykh : uchebnoe posobie [Methods of diagnostics of diseases of agricultural animals: a textbook] / A. P. Kurdeko, S. P. Kovalev, V. N. Aleshkevich [et al.]; edited by A. P. Kurdeko, S. P. Kovalev. Saint-Petersburg: Lan Publ., 2018. 208 p. ISBN 978-5-8114-2994-3. Text: electronic / / Electronic library system "Lan" : [website]. URL: https://e.lanbook.com/book/107294 (date of request: June 24, 2024).

- 19. Microbiology: a textbook / R. G. Gosmanov, A. K. Galiullin, A. Kh. Volkov, A. I. Ibragimova. 3rd ed., ster. Saint-Petersburg: Lan, 2019. 496 p. ISBN 978-5-8114-1180-1. Text: electronic / / Electronic library system "Lan" : [website]. URL: https://e.lanbook.com/book/112044 (date of request: June 24, 2024).
- 20. General pharmacology: a textbook / M. I. Rabinovich, G. A. Nozdrin, I. M. Samorodova, A. G. Nozdrin. 2nd ed. Saint-Petersburg: Lan, 2022. 272 p. ISBN 5-8114-0652-5. Text: electronic / / Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/330">https://e.lanbook.com/book/330</a> (date of request: June 24, 2024).
- 21. Slobodyanik, V. I. Preparations of various pharmacological groups. Mechanism of action: a textbook / V. I. Slobodyanik, V. A. Stepanov, N. V. Melnikova. Saint-Petersburg: Lan, 2014. 368 p. ISBN 978-5-8114-1680-6. Text: electronic / / Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/49472 (date of request: June 24, 2024).
- 22. Sokolov V. D. Pharmacology: textbook / V. D. Sokolov. 4th ed., ispr. and add. Saint-Petersburg: Lan, 2022. 576 p. ISBN 978-5-8114-0901-3. Text: electronic / / Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/10255 (date of request: June 24, 2024).
- 24. Fedorenko I. S., Pereryadkina S. P., Kharlamova E. A. Microbiology and immunology: a textbook. Volgograd: Volgogradsky GAU, 2017. 100 p. Text: electronic / / Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/100803">https://e.lanbook.com/book/100803</a> (date of request: June 24, 2024).
- 25. Private veterinary and sanitary microbiology and virology: a textbook / R. G. Gosmanov, R. Kh. Ravilov, A. K. Galiullin [et al.]. Saint Petersburg: Lan, 2019. 316 p. ISBN 978-5-8114-3593-7. Text: electronic / / Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/116373">https://e.lanbook.com/book/116373</a> (date of request: June 24, 2024).

#### 8.2. Additional literature

- 1. Antimicrobial and antiparasitic agents / N. L. Andreeva, A.M. Lunegov, O. S. Popova, V. A. Baryshev. Saint Petersburg: SPbGAVM Publ., 2017, 57 p. (in Russian) Text: electronic // Electronic library system "Lan" : [website]. URL: <a href="https://e.lanbook.com/book/121282">https://e.lanbook.com/book/121282</a> (date of request: June 24, 2024).
- 2. Baryshnikov P. I., Razumovskaya V. V. Laboratory diagnostics of viral diseases of animals: a textbook. -2nd ed., ispr. St. Petersburg: Lan, 2022. 672 p - ISBN 978-5-8114-1882-4. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/64323 (date of request: June 24, 2024).
- 3. Veterinary pharmacy: textbook / V. D. Sokolov, N. L. Andreeva, G. A. Nozdrin, S. N. Preobrazhensky; edited by V. D. Sokolov. 2nd ed., ispr. and add. St. Petersburg: Lan Publ., 2022, 512 p. ISBN 978-5-8114-1133-7. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/660 (date of request: June 24, 2024).
- 4. Gosmanov R. G., Kolychev N. M., Pleshakova V. I. Veterinary virology: textbook. 5th ed., ster. Saint Petersburg: Lan Publ., 2018, 500 p. ISBN 978-5-8114-1073-6. Text: electronic // Electronic library system "Lan": [website]. URL: <a href="https://e.lanbook.com/book/105990">https://e.lanbook.com/book/105990</a> (date of request: June 24, 2024).
- 5. Gosmanov R. G., Galiullin A. K., Nurgaliev F. M. Laboratory animals for microbiological research: 2019-08-14. Kazan: KGAVM im. Bauman, 2017. 67 p. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/122911 (date of request: June 24, 2024).
- 6. Gosmanov R. G., Ibragimova A. I., Galiullin A. K. Microbiology and immunology: a textbook. 2nd ed., reprint. and add-ons. Saint Petersburg: LanPubl., 20-22. 240

- p. ISBN 978-5-8114-1440-6. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/12976 (date of request: June 24, 2024).
- 7. Gosmanov R. G., Kolychev N. M., Novitsky A. A. Osnovy ucheniya ob infektsii i antimikrobnom immunitete [Fundamentals of the doctrine of infection and antimicrobial immunity]. 2nd ed., ispr. Saint Petersburg: Lan, 2017. 280 p. ISBN 978-5-8114-2377-4. Text : electronic // Electronic library system "Lan" : [website]. URL: https://e.lanbook.com/book/89928 (date of request: June 24, 2024).
- 8. Gosmanov R. G., Kolychev N. M., Barskov A. A. Praktikum po veterinarnoi microbiologii i mikologii : uchebnoe posobie [Practical work on veterinary microbiology and mycology: a textbook]. Saint Petersburg: Lan, 20222022. 384 p. ISBN 978-5-8114-1625-7. Text : electronic // Electronic library system "Lan" : [website]. URL: https://e.lanbook.com/book/45680 (date of request: June 24, 2024).
- 9. Immunology: a textbook / R. G. Gosmanov, N. M. Kolychev, R. Kh. Ravilov [et al.].-3rd ed., ster. St. Petersburg: Lan Publ., 2018, 188 p. ISBN 978-5-8114-2593-8. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/103901 (date of request: June 24, 2024).
- 10. Clinical gastroenterology of animals: a textbook / I. I. Kalyuzhny, G. G. Shcherbakov, A.V. Yashin [et al.]; edited by I. I. Kalyuzhny. 2nd ed., ispr.-St. Petersburg: Lan, 2020-22. 448 p.-ISBN 978-5-8114-1813-8. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/61362 (date of request: June 24, 2024).
- 11. Kolychev, N. M. Veterinary microbiology and mycology: textbook / N. M. Kolychev, R. G. Gosmanov. 2nd ed., ster. St. Petersburg: Lan Publ., 2018, 624 p. ISBN 978-5-8114-1540-3. Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/109627 (date of request: June 24, 2024).
- 12. Kolychev, N. M. Veterinary microbiology and mycology: textbook / N. M. Kolychev, R. G. Gosmanov. 3rd ed., ster. St. Petersburg: Lan Publ., 2019, 624 p. (in Russian) Text: electronic // Electronic library system "Lan": [website]. URL: https://e.lanbook.com/book/125742 (date of request: June 24, 2024).
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#### 8.3. Internet resources

Students can use the following online resources for training:

- 1. https://meduniver.com://meduniver.com -Medical information site.
- 2. <a href="http://studvet.ru/">http://studvet.ru/</a> Veterinary portal.
- 3. Veterinary medicine. rf
- 4. Main Veteran portal of Russia
- 5. Veterinary medicine
- 6. Encyclopedia of medicines and pharmacy products
- 7. Vidal Vet Reference Book

# 8.4. Electronic library systems

- 1. EBS "SPBGUVM"
- 2. EBS "Lan Publishing House"
- 3. EBS "Student's consultant"
- 4. ConsultantPlus Legal Reference System
- 5. University information system "RUSSIA"
- 6. Full-text database POLPRED.COM
- 7. Scientific Electronic Library ELIBRARY.RU
- 8. Russian Scientific Network
- 9. IQlib Electronic Library System
- 10. Database of International Science Citation Indexes Web of Science
- 11. ProQuest AGRICULTURAL AND ENVIRONMENTAL SCIENCE DATABASE, a full-text interdisciplinary database for agricultural and environmental sciences ProQuest AGRICULTURAL AND ENVIRONMENTAL SCIENCE DATABASE
- 12. Electronic books published by Prospekt Nauki Publishing <u>House</u> http://prospektnauki.ru/ebooks/
- 13. Collection " Agriculture. Veterinary Medicine" by Kvadro Publishing <u>House</u> http://www.iprbookshop.ru/586.html

# 9. LIST OF INFORMATION TECHNOLOGIES USED IN THE PRACTICE, INCLUDING A LIST OF SOFTWARE AND INFORMATION REFERENCE SYSTEMS

# 9.1. Information technologies:

When performing the internship program, it is planned to use information technologies:

- ✓ interactive technologies (conducting dialogues, collective discussion of various approaches to solving a particular educational and professional task);
- interaction with students via e-mail;
- ✓ joint work in the Electronic information and Educational environment of St. Petersburg State University of Internal Affairs: <a href="https://spbguvm.ru/academy/eios">https://spbguvm.ru/academy/eios</a>

# 9.2. Software:

n/	a Name of technical and computer training tools	License
recommended by sections and topics		
1	MS PowerPoint	67580828
2	LibreOffice	free software
3	OS Alt Education 8	AAO. 0022. 00
4	ABIS "MARK-SQL"	02102014155

5	5 MS Windows 10		67580828
6	6	System ConsultantPlus	503 /KL
7	7	Android OS	free software

# 10. EDUCATIONAL WORK

As part of the implementation of the discipline, educational work is carried out to form a modern scientific worldview and a system of basic values, to form and develop spiritual and moral, civil and patriotic values, a system of aesthetic and ethical knowledge and values, attitudes of tolerant consciousness in society, to form students 'needs for work as the first vital necessity, the highest value and the main success in life, to realize the social significance of your future profession.

# 11. MATERIAL AND TECHNICAL BASE NECESSARY FOR CONDUCTING EDUCATIONAL CLINICAL PRACTICE

Educational clinical practice for students is conducted on the basis of state and non-state veterinary and scientific institutions, enterprises of the agro-industrial complex of the city.St. Petersburg and Leningrad region, in other regions of the Russian Federation, as well as in the university's structural divisions.

For an integrated approach and development of the internship program, the university has the material and technical base and resources:

Name of the discipline (module), practices in accordance with the curriculum	Name of special rooms and rooms for independent work	Equipment of special rooms and rooms for independent work
Educational clinical practice	206 Large reading room (196084, St. Petersburg, Chernihiv str., 5) Room for independent work	Specialized furniture: tables, chairs Technical training facilities: computers with Internet connection and access to electronic information and educational environment
	214 Small reading room (5 Chernigovskaya Street, Saint Petersburg, 196084) Self-study room	Specialized furniture: tables, chairs Technical training facilities: computers with Internet connection and Internet connection access to the electronic information and educational environment
	324 Department of Information Technologies (5 Chernigovskaya Street, Saint Petersburg, 196084) Room for storage and preventive maintenance of educational equipment	Specialized furniture: tables, chairs, special equipment, materials and spare parts for preventive maintenance of technical training equipment
	Box No. 3 Carpentry workshop (196084 5, Chernihiv str., Saint Petersburg) Premises for storage and preventive maintenance of educational equipment	Specialized furniture: tables, chairs, special equipment, materials for preventive maintenance of specialized furniture

The working program was compiled by:

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