Ministry of Agriculture of the Russian Federation
Federal State Budgetary Educational Institution
of Higher Education
"St. Petersburg State University of Veterinary Medicine"

APPROVED BY
Vice-Rector for Educational
Work and Youth Policy
_____ Sukhinin A.A.
June 27, 2025

Department of Internal Diseases of animals named after A. V. Sinev

EDUCATIONAL WORK PROGRAM

for the discipline

«DERMATOLOGY»

The level of higher education
SPECIALIST COURSE

Specialty 36.05.01 Veterinary Medicine
Profile: «General Clinical Veterinary Medicine»
Full-time education

Education starts in 2025

Reviewed and adopted
at the meeting of the department
on June 24, 2025.
Protocol No. 10

Head of the Department of Internal
Diseases of Animals named after Sinev A.V.
Doctor of Veterinary Sciences,
_____ Associate Professor A.V. Prusakov

Saint Petersburg
2025

1. AIMS AND OBJECTIVES OF THE DISCIPLINE "INTERNAL NON-COMMUNICABLE DISEASES"

The academic discipline FTD.02 "Dermatology" is a variable part of the professional cycle of disciplines for training students in the specialty 05/36.01 – Veterinary Medicine. The content of the discipline covers a range of issues related to the study of all types of skin diseases and their causes; as well as factors contributing to their occurrence; species reactivity of animals – their body's responses to traumatic factors and infections that cause skin diseases; some aspects of clinical immunology. Principles of etiological and pathogenetic treatment, reflexology and other medical issues.

The purpose of the discipline is to provide students with theoretical knowledge and practical skills in the general prevention, diagnosis and treatment of common skin diseases in animals.

Objectives of the discipline:

- gain skills in conducting clinical examination of the skin and outpatient admission of animals with dermatological diseases;
- to master the methods of treatment and prevention of skin diseases.

2. THE LIST OF THE PLANNED RESULTS OF THE DISCIPLINE (MODULE), CORRELATED WITH THE PLANNED RESULTS OF THE REALISED EDUCATIONAL PROGRAM

As a result of mastering the discipline, the student prepares for the following types of activities, in accordance with the educational standard of the FSE on 05.36.01 "Veterinary Medicine".

Types of professional activities:

- medical;
- expert and control;
- scientific and educational.

The study of the discipline should form the following competencies:

a) professional competencies (PC):

- Development of an animal research program and conduction of clinical study, using special (instrumental) and laboratory methods to clarify the diagnosis **(PC-2);**
- To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods **(PC -3).**
- Development of an animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary medicines of chemical and biological nature for the treatment of animals, taking into account their combined pharmacological effect on the body **(PC-5).**

The planned results of the development of competencies, taking into account professional standards

Index	Content
PC-2	Development of an animal research program and conduction of clinical study, using special (instrumental) and laboratory methods to clarify the diagnosis
PC-2 $_{ID-1}$	To be able to study animals, using digital equipment and special (instrumental) methods, including endoscopy, probing, catheterization, radiography, electro cardiography, echography
PC-2 $_{ID-2}$	To be able to interpret and analyze data from special (instrumental) animal research methods to verify the diagnosis
PC-2 $_{ID-4}$	Be able to take samples of animal biological material for laboratory research
PC-2 $_{ID-}$	Be able to perform analytical preparation, storage of the studied biological material,

5	transportation to the laboratory
PC-2 ID - 6	To be able to interpret and analyze data from laboratory animal research methods for diagnosis
PC-2 ID - 7	To know the indication for the use of digital equipment, special (instrumental) and laboratory methods of animal research in accordance with the guidelines, instructions, rules for the diagnosis, prevention and treatment of animals
PC-2 ID - 9	To possess skills of the technique of the animal study, using digital equipment and special (instrumental) methods in accordance with methodological guidelines, instructions, rules for the diagnosis, prevention and treatment of animals
PC-2 ID -11	To possess skills of the technique of setting functional tests for animals
PC-3	To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods
PC-3 ID -1	To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases
PC-3 ID -2	To possess skills to use specialized information databases for the diagnosis of animal diseases
PC-3 ID -3	To possess skills to document the results of clinical animal studies, using digital technologies
PC-3 ID -4	To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination
PC-3 ID -5	To know the norms of indicators of the state of biological material of animals of different species and the reasons that cause deviations from the norms
PC-3 ID -6	To know the etiology and pathogenesis of animal diseases of various species
PC-3 ID -7	To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease
PC-5	Development of an animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary medicines of chemical and biological nature for the treatment of animals, taking into account their combined pharmacological effect on the body
PC-5 ID -1	Be able to use specialized information databases when choosing animal treatment methods
PC-5 ID -2	Be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with prescriptions for a specific period
PC-5 ID -3	Be able to calculate the number of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period, including using digital technologies
PC-5 ID -4	Be able to inject drugs into the body of animals in various ways
PC-5 ID -5	Know the methods of drug treatment of sick animals and the indications for their use in accordance with the guidelines, instructions, guidelines, rules of diagnosis, prevention and treatment of animals
PC-5 ID -8	Know the technique of introducing drugs into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods

3. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF THE MPEP

The discipline FTD.02 "Dermatology" is an elective of the federal state educational standard of higher education in specialty 05/36.01 "Veterinary Medicine".

According to the profile: "General clinical veterinary medicine" is mastered by 5th year full-time students in the 9th semester, part-time in the 11th semester, part-time in the 6th year. According to the profile: "Veterinary medicine of small pets" is mastered by 5th year full-time students in the 9th semester.

The subject of dermatology is closely related to such academic disciplines as "Animal Anatomy", "Cytology, Histology and Embryology", "General and private surgery", "Operative surgery with topographic anatomy", "Physiology and Ethology of animals",

"Pathological physiology", "Veterinary pharmacology. Toxicology", "Pathological anatomy and forensic veterinary examination", "Veterinary microbiology and Mycology", "Veterinary Virology and Biotechnology", "Clinical diagnostics". Knowledge of these disciplines helps to find out the causes of skin diseases, correctly diagnose them, organize treatment and prevention.

4. THE SCOPE OF DISCIPLINE AND TYPES OF ACADEMIC WORK

4.1. The scope of the discipline for full-time education

Type of educational work	Hours	Semesters
		9
Classroom classes (total)	**32**	**32**
Including:	**-**	**-**
Lectures, including interactive forms	16	16
Practical lessons (PL), including interactive forms, among which are:	16	16
practical training (PT)	4	4
Self-study	**40**	**40**
Type of intermediate and final certification (test, exam)	Test, exam	Test
Total labor intensity hours/credits	**72**	**72/2**

5. THE CONTENT OF THE DISCIPLINE AND TYPES OF CLASSES

№	Name Practical and lecture classes (7th semester)	Emerging competencies	Term	Types of academic work, including students' independent work and labor intensity (in hours)			
				lectures	practical lessons	practical training	independent work
1.	Introduction to veterinary dermatology. Current issues. The structure of the skin and its derivatives. Physiology of the skin.	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	9	2	2	1	5
2.	Features of the pathogenesis of dermatological diseases. Classification of skin diseases.	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC5ID -5, PC-5ID -8)	9	2	2	-	5
3.	Fundamentals of diagnosis of skin diseases.	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	9	2	2	1	5
4.	Principles of treatment of dermatological diseases. Medications used for skin diseases.	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	9	2	2	-	5

5	Parasitic and bacterial skin diseases	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	9	2	2	-	5
6.	Viral and fungal skin diseases	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	9	2	2	1	5
7.	Allergic and autoimmune skin diseases	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	9	2	2	1	5
8.	Endocrine dermatoses and hereditary diseases	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	9	2	2	-	5
14.	TOTAL: **72**			**16**	**16**	**4**	**40**

6. THE LIST OF EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR STUDENTS' SELF WORK

6.1. Guidelines for independent work

1. Practical guide to veterinary dermatology of small pets. Laboratory diagnostics / S.V. Pozyabin, V.V. Ruppel, A.V. Staufen [et al.] ; edited by N.S. Goryanskaya ; MGAVMiB - MBA named after K.I. Scriabin. - Moscow : Agricultural Technologies, 2023. - 62 p. - Text (visual) : direct. ISBN 978-5-86341-498-0

6.2. Literature for self-work

1. Dictionary of veterinary terms on clinical diagnosis and internal non-infectious diseases: Textbook / Korobov A.V., Savinkov A.V., Vorobyov A.V. [et al.]. – St. Petersburg: Lan Publishing House, 2007. – 320 p. - (Textbooks for universities. Special literature).

2. Handbook of a veterinary therapist: textbook / G. G. Shcherbakov, N. V. Danilevskaya, S. V. Starchenkov [et al.]. - 5th ed., ispr. and add. – St. Petersburg: Lan. – 2021. – 656 p. 3. Non–infectious diseases of dogs and cats / Lebedev A.V., Starchenkov S. V., Khokhrin S. N., Shcherbakov G. G. - St. Petersburg: Giord. – 2000. – 294 p.: ill.

7. THE LIST OF BASIC AND ADDITIONAL LITERATURE NECESSARY FOR THE EDUCATION OF THE DISCIPLINE

7.1. Basic literature

1. Internal diseases of animals / edited by G. G. Shcherbakov, A.V. Korobov. - Moscow: Lan, 2002. – 736 p. - (Textbooks for universities. Special literature).

2. Internal diseases of animals: textbook for universities / G. G. Shcherbakov, A.V. Yashin, A. P. Kurdeko [et al.]; under the general editorship of G. G. Shcherbakov [et al.]. - 5th ed., erased. - St. Petersburg: Lan. – 2021. – 716 p.

3. Workshop on internal diseases of animals / Edited by G.G. Shcherbakov, A.V. Korobov. – St. Petersburg: Lan. – 2003. – 544 p.: ill. – (Textbooks for universities. Special literature).

4. Workshop on internal diseases of animals: textbook / G. G. Shcherbakov [et al.]; under the general editorship of G. G. Shcherbakov [et al.]. – 3rd ed., erased. – St. Petersburg: Lan, 2020. – 544 p.

7.2. Additional literature

1. Operative surgery with topographic anatomy of animals / K. A. Petrakov, P. T. Salenko, S. M. Paninsky ; edited by K. A. Petrakov. - Moscow : Kolos Publ., 2001. - 424 p. : ill. - (Textbooks and textbooks. the manual. for students. higher. studies. (.). - Text (visual) : immediate. ISBN 5-10-003516-1

2. Practical training on operative surgery with the basics of topographic anatomy of domestic animals / B. S. Semenov, V. A. Ermolaev, S. V. Timofeev. Moscow : KolosS Publ., 2003. 263 p. (Textbooks and teaching aids for students of higher educational institutions). - Text (visual) : direct. ISBN 5-9532-0110-9

8.THE LIST OF RESOURCES OF THE INFORMATION AND TELECOMMUNICATION NETWORK "INTERNET" NECESSARY FOR EDUCATION OF THE DISCIPLINE

To prepare for laboratory classes and perform self-work, students can use the following online resources:

Electronic library systems

1. ELS "SPBGUVM"
2. Legal reference system "ConsultantPlus"
3. University information system "RUSSIA"
4. Scientific electronic Library ELIBRARY.RU
5. Russian Scientific Network
6. Full-text interdisciplinary database on agricultural and environmental sciences ProQuest AGRICULTURAL AND ENVIRONMENTAL SCIENCE DATABASE
7. Collection "Agriculture. Veterinary medicine" publishing house "Quadro" ELS "Elibris" publishing house "Quadro" https://elibrica.com/

9. METHODOLOGICAL GUIDELINES FOR STUDENTS ON EDUCATION OF THE DISCIPLINE

Methodological recommendations for students are a set of recommendations and explanations that allow the student to optimally organize the process of studying this discipline.

The content of the methodological recommendations, as a rule, may include:

• Tips on planning and organizing the time needed to study the discipline. Description of the sequence of actions of the student, or the "scenario of studying the discipline".

Morning time is the most fruitful for academic work (from 8-14 o'clock), followed by afternoon time (from 16-19 o'clock) and evening time (from 20-24 o'clock). The most difficult material is recommended to be studied at the beginning of each time interval after rest. After 1.5 hours of work, a break is required (10-15 minutes), after 4 hours of work, the break should be 1 hour. Part of the scientific organization of labor is the mastery of the technique of mental labor. Normally, a student should devote about 10 hours a day to studying (6 hours at university, 4 hours at home).

• Recommendations for working with literature.

Working with literature is an important stage of the student's independent work on mastering the subject, contributing not only to the consolidation of knowledge, but also to the expansion of horizons, mental abilities, memory, the ability to think, express and confirm their hypotheses and ideas. In addition, the skills of research work necessary for further professional activity are being developed.

When starting to study the literature on the topic, it is necessary to make notes, extracts, notes. It is mandatory to take notes of the works of theorists, which allow us to comprehend the theoretical basis of the study. For the rest, you can limit yourself to extracts from the studied sources. All extracts and quotations must have the exact "return address" (author, title of the work, year of publication, page, etc.). It is advisable to write an abbreviated title of the question to which the extract or quotation refers. In addition, it is necessary to learn how to immediately compile a file of special literature and publications of sources, both proposed by the teacher and identified independently, as well as refer to bibliographic reference books, chronicles of journal articles, book chronicles, abstract journals. At the same time, publications of sources (articles, book titles, etc.) should be written on separate cards, which must be filled in according to the rules of bibliographic description (surname, initials of the author, title of the work. Place of publication, publisher, year of publication, number of pages, and for journal articles – the name of the journal, year of publication, page numbers). On each card, it is advisable to record the thought of the author of the book or a fact from this book on only one specific issue. If the work, even in the same paragraph or phrase, contains more judgments or facts on another issue, then they should be written out on a separate card. The presentation should be concise, accurate, without subjective assessments. On the back of the card, you can make your own notes about this book or article, its content, structure, on which sources it is written, etc.

• Explanations about working with control and test materials for the course, recommendations for completing homework.

Testing allows you to determine whether the actual behavior of the program corresponds to the expected one by performing a specially selected set of tests. A test is the fulfillment of certain conditions and actions necessary to verify the operation of the function under test or part of it. Each question in the discipline must be answered correctly by choosing one option.

• Recommendations for the implementation of course work (if it is assumed by the curriculum), defining their thematic focus, goals and objectives of implementation, requirements for the content, volume, design and organization of guidance for their preparation by departments and teachers.

According to the guidelines provided in the list of guidelines.

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, the formation and development of spiritual and moral, civil and patriotic values, a system of aesthetic and ethical knowledge and values, attitudes of tolerant consciousness in society, the formation of students' need for work as the first vital necessity, the highest value and the main way to achieve success in life, to realize the social significance of your future profession.

11. THE LIST OF INFORMATION TECHNOLOGIES USED IN THE IMPLEMENTATION OF THE EDUCATIONAL PROCESS

11.1 Information technologies

For the educational process of the discipline is previewed the use of information technologies:

- practical classes using multimedia;
- interactive technologies (dialogues, collective discussion on various topics for realization a particular educational and professional task);
- interaction with students via e - mail;
- community work in the electronic information and educational environment of St. Petersburg State University: https://spbguvm.ru/academy/eios/

11.2. Software

The list of licensed and free- distributed software, including national programs

№ п/п	Technical and computer programs recommended by sections and topics of the program	License
1	MS PowerPoint	67580828
2	LibreOffice	free software
3	OS Alt Education	AAO.0022.00
4	ABIS “ MARK-SQL”	02102014155
5	MS Windows 10	67580828
6	System Consult Plus	503/КЛ
7	Android OS	free software

12. THE MATERIAL AND TECHNICAL BASE NECESSARY FOR THE IMPLEMENTATION OF THE DISCIPLINE EDUCATIONAL PROCESS.

No. p / p	The name of the subject, discipline (module) in	The name of equipped lecture halls with a list of basic equipment	The actual address of classrooms and facilities

	accordance with the curriculum		
1	Cardiology	*1.Study rooms 102,103,104,107* Educational furniture: seats according to the number of students; teacher's workplace; cabinets, stands, multimedia projector, laptop. *2. Specialized tools:* microscopes, slides, cover glasses. 108. Laboratory: laboratory equipment and reagents for the examination of blood, urine, feces according to the methods, simulators for practicing manipulations.	St. Petersburg, Chernihiv str., 5, Department of Internal Diseases of Animals named after Sineva A.V.

Developers:

Associate Professor of the Department of Internal Animal Diseases — Golodyaeva M.S.

Associate Professor of the Department of Internal Animal Diseases — Katargin R.S.

Head of the Department of Internal Diseases of Animals named after Sinev A.V. Doctor of Veterinary Sciences — Prusakov A.V.

Annex 1

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

Department of Internal Diseases of animals named after A. V. Sinev

FUND OF ASSESMENT TOOLS
for the discipline

DERMATOLOGY

Level of higher education
SPECIALIST COURSE

Specialty 36.05.01 Veterinary medicine
Profile: «General Clinical Veterinary Medicine»
Full-time education.

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1. PASSPORT OF THE FUND OF ASSESMENT TOOLS

Table 1

Index	Content
PC-2	Development of an animal research program and conduction of clinical study, using special (instrumental) and laboratory methods to clarify the diagnosis
PC-2 ID - 1	To be able to study animals, using digital equipment and special (instrumental) methods, including endoscopy, probing, catheterization, radiography, electro cardiography, echography
PC-2 ID - 2	To be able to interpret and analyze data from special (instrumental) animal research methods to verify the diagnosis
PC-2 ID - 4	Be able to take samples of animal biological material for laboratory research
PC-2 ID - 5	Be able to perform analytical preparation, storage of the studied biological material, transportation to the laboratory
PC-2 ID - 6	To be able to interpret and analyze data from laboratory animal research methods for diagnosis
PC-2 ID - 7	To know the indication for the use of digital equipment, special (instrumental) and laboratory methods of animal research in accordance with the guidelines, instructions, rules for the diagnosis, prevention and treatment of animals
PC-2 ID - 9	To possess skills of the technique of the animal study, using digital equipment and special (instrumental) methods in accordance with methodological guidelines, instructions, rules for the diagnosis, prevention and treatment of animals
PC-2 ID -11	To possess skills of the technique of setting functional tests for animals
PC-3	To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods
PC-3 ID -1	To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases
PC-3 ID -2	To possess skills to use specialized information databases for the diagnosis of animal diseases
PC-3 ID -3	To possess skills to document the results of clinical animal studies, using digital technologies
PC-3 ID -4	To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination
PC-3 ID -5	To know the norms of indicators of the state of biological material of animals of different species and the reasons that cause deviations from the norms
PC-3 ID -6	To know the etiology and pathogenesis of animal diseases of various species
PC-3 ID -7	To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease
PC-5	Development of an animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary medicines of chemical and biological nature for the treatment of animals, taking into account their combined pharmacological effect on the body
PC-5 ID -1	Be able to use specialized information databases when choosing animal treatment methods
PC-5 ID -2	Be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with prescriptions for a specific period
PC-5 ID -3	Be able to calculate the number of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period, including using digital technologies
PC-5 ID -4	Be able to inject drugs into the body of animals in various ways
PC-5 ID -5	Know the methods of drug treatment of sick animals and the indications for their use in accordance with the guidelines, instructions, guidelines, rules of diagnosis, prevention and treatment of animals

PC-5 ID -8	Know the technique of introducing drugs into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods

List of assessment tools

Table 2

№	Emerging competencies	Supervised sections (topics) of the discipline	Evaluation tool
1.	PK-2 (PK-2ID-1, PK-2ID-2, PK-2ID-4, PK-2ID-5, PK-2ID-6, PK-2ID-7, PK-2ID-9) PK-3 (PK-3ID-1, PK-3ID-2, PK-3ID-3, PK-3ID-4, PK-3ID-5, PK-3ID-6, PK-3ID-7) PC-5 (PC-5 ID -1, PC-5ID -2, PC-5ID -3, PC-5ID -4, PC-5ID -5, PC-5ID -8)	Introduction to veterinary dermatology. Current issues. The structure of the skin and its derivatives. Physiology of the skin.	Diagnostic tasks
2.		Features of the pathogenesis of dermatological diseases. Classification of skin diseases.	Diagnostic tasks
3.		Fundamentals of diagnosis of skin diseases.	Diagnostic tasks
4.		Principles of treatment of dermatological diseases. Medications used for skin diseases.	Diagnostic tasks
5.		Parasitic and bacterial skin diseases	Diagnostic tasks
6.		Viral and fungal skin diseases	Diagnostic tasks
7.		Allergic and autoimmune skin diseases	Diagnostic tasks
8.		Endocrine dermatoses and hereditary diseases	Diagnostic tasks

An approximate list of evaluation tools

Table 3

№	Name of the evaluation tool	Brief description of the evaluation tool	Presentation of an evaluation tool in the fund
1.	Diagnostic tasks	A system of standardized tasks that allows you to automate the procedure for measuring the level of knowledge and skills of a student	The fund of test tasks
2.	Credit	A means of monitoring the assimilation of educational material per semester	Questions on topics/sections of the discipline

1. INDICATORS AND CRITERIA FOR ASSESSING COMPETENCIES AT VARIOUS STAGES OF ITS FORMATION, DESCRIPTION OF ASSESSMENT SCALES

Planned results of competence development	The level of development				Evaluation tool
	unsatisfactory	satisfactory	good	excellent	
• **PC-2. Development of an animal research program and conduction of clinical study, using special (instrumental) and laboratory methods to clarify the diagnosis**					
PC-2ID-7, PC-2ID-9 To know: 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; techniques for conducting animal research using digital equipment and special (instrumental) methods in accordance with with guidelines, instructions, and rules for the diagnosis, prevention, and treatment of animals. **PC-2ID-1, PC-2ID-2, PC-2ID-4, PC-2ID-5, PC-2ID-6** **Be able to:** examine animals using digital equipment and using special (instrumental) methods, including endoscopy, probing, catheterization, radiography, electrocardiography, to carry out the interpretation and analysis of data from special (instrumental) methods of animal	The level of knowledge is below the minimum requirements, gross errors have occurred	The minimum acceptable level of knowledge, many blunders have been made	The level of knowledge in the volume corresponding to the training program, several blunders were made	The level of knowledge in the volume corresponding to the training program, without errors	Diagnostic tasks

research to verify the diagnosis; to determine the reaction of the cardiovascular system of animals to various loads by the method of functional tests; to interpret and analyze data from laboratory methods of animal research to establish a diagnosis; to take samples of animal biological material for laboratory research; to carry out analytical preparation, storage of the biological material under study, transportation to the laboratory.					
• **PC-3. To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods**					
PC-3ID-4, PC-3ID-5, PC-3ID-6, PC-3ID-7 To know: methods of interpretation and analysis of data from special (instrumental) methods of animal research; norms of indicators of the state of biological material of animals of different species and the reasons causing deviations of indicators from the norms; norms of indicators of the state of biological material animals of different species and the causes of deviations from the norms; etiology and pathogenesis of animal diseases of various species;	Basic skills were not demonstrated when solving standard tasks, and gross errors occurred	Basic skills have been demonstrate, typical tasks with minor errors have been solved, all tasks have been completed, but not in full	All the basic skills have been demonstrate, all the main tasks with minor errors have been solved, all the tasks have been completed in full, but some with flaws	All basic skills have been demonstrate, all basic tasks have been solved with some minor flaws, and all tasks have been completed in full	Diagnostic tasks

generally accepted criteria and classifications of animal diseases, approved lists of animal diseases. **PC-3ID-1, PC-3ID-2, PC-3ID-3** **Should be able to:** make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases; use specialized information databases for the diagnosis of animal diseases; formalize the results of clinical studies of animals using digital technologies.					
• **(PC-5). Development of an animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary medicines of chemical and biological nature for the treatment of animals, taking into account their combined pharmacological effect on the body**					
PC-5ID-5, PC-5ID-8 **To know:** methods of drug treatment of sick animals and indications for their use in accordance with the guidelines, instructions, guidelines, rules for the diagnosis, prevention and treatment of animals; techniques for the introduction of medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods.	Basic skills were not demonstrated when solving standard tasks, and gross errors occurred	Basic skills have been demonstrate, typical tasks with minor errors have been solved, all tasks have been completed, but not in full	All the basic skills have been demonstrate, all the main tasks with minor errors have been solved, all the tasks have been completed in full, but some with flaws	All basic skills have been demonstrate, all basic tasks have been solved with some minor flaws, and all tasks have been completed in full	Diagnostic tasks

PC-5ID-1, PC-5ID-2, PC-5ID-3, PC-5ID-4 **Be able to:** use specialized information databases when choosing ways to treat animals; calculate the number of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period; calculate the number of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period, including using digital technologies; introduce medicines into the body of animals in various ways.					

3. A LIST OF CONTROL TASKS AND OTHER MATERIALS, NECESSARY FOR THE ASSESSMENT OF KNOWLEDGE, SKILLS AND WORK EXPERIENCE

3.1. Diagnostic tasks

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

CLOSED TYPE TASKS

Combined type tasks: choosing one correct answer from the options provided

PC-2id1 Should be able to examine animals using digital equipment and using special (instrumental) methods, including endoscopy, probing, catheterization, radiography, electrocardiography, and echography.

Task 1.

Choose the correct answer.

What is not considered to be the primary morphological elements of a skin rash?

1. The stain
2. The bump
3. Ulcer
4. The bubble

Answer: 3

Task 2.

Choose the correct answer.

What effect does hemotherapy have on skin diseases?

1. Warming
2. Anti-inflammatory
3. Disinfectant
4. Immunomodulatory

Answer: 4

PC-2id-2 Should be able to interpret and analyze data from special (instrumental) methods of animal research to verify the diagnosis

Task 3.

Choose the correct answer.

At what stage of eczema is tissue therapy used?

1. acute
2. chronic
3. purulent
4. wet

Answer: 2

Task 4.

Choose the correct answer.

What complications on the skin are caused by antibiotic therapy

1. Anaphylactic shock
2. Vitiligo
3. Alopecia
4. Fungal dermatitis

Answer: 4

Task 5.

Choose the correct answer.
What is affected by superficial folliculitis?
1. The hair sac
2. The sebaceous gland
3. Subcutaneous tissue
4. The dermis
Answer: 1

Closed-type compliance assignments

Task 6.

Establish a correspondence between the types of dermatitis and the groups of drugs used in their treatment *(for each position in the first column, select the appropriate position from the second column):*

Types of dermatitis		Groups of medicines	
А	Bacterial dermatitis	1	Immunosuppressants
Б	Viral dermatitis	2	Antifungal drugs
В	Fungal dermatitis	3	Interferon inductors
Г	Autoimmune dermatitis	4	Antibacterial drugs

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Ответ: A-4; B-3; C-2; D-1.

PK-2id-4 Should be able to take samples of animal biological material for laboratory research

Task 7.

Establish a correspondence between the type of pustular skin disease and the degree of tissue involvement in the pathological process *(select the appropriate position from the second column for each position in the first column):*

Type of pustular skin disease		Prevalence of the pathological process	
А	Superficial folliculitis	1	Inflammation of several adjacent hair follicles
Б	Deep folliculitis	2	purulent inflammation covers the upper third of the hair follicle, before the duct of the sebaceous gland flows into it
В	The boil	3	purulent inflammation covers the entire hair follicle, but without the necrotic shaft
Г	The carbuncle	4	Inflammation of one hair follicle with a necrotic shaft

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Ответ: A-2; B-3; C-4; D-1.

Task 8.

Establish a correspondence between the name of the morphological elements of the rash and their morphology *(for each position of the first column, select the corresponding position from the second column):*

Morphological elements of the rash		Morphology of the rash elements	
А	The blister	1	A cavity formation on the skin filled with dense masses

Б	Vesicle	2	Caveless formation on the skin A cavity formation on the skin filled with flui
В	Tuberculosis	3	Caveless formation on the skin A cavity formation on the skin filled with flui

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Ответ: A-2; B-3; C-1, D-4.

Task 9.

Establish a correspondence between the skin cells and their main function *(for each position of the first column, select the corresponding position from the second column):*

Skin Cells		Function	
А	Keratinocytes of the thorny layer	1	Proliferating cells responsible for the regeneration of the epidermis
Б	Basal cell keratinocytes	2	Cells that make up the bulk of the epidermis
В	Langerhans cells	3	Cells responsible for skin pigmentation
Г	Melanocytes	4	Cells that are macrophages of the epidermis

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Ответ: A-2; B-1; C-4; D-3.

PC-2id-5 Should be able to perform analytical preparation, storage of the biological material under study, and transportation to the laboratory

PC-2 id-6 Should be able to interpret and analyze data from laboratory animal research methods to establish a diagnosis

PC-2 id-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 diagnosis, prevention and treatment of animals

Task 10.

Establish a correspondence between the type of skin tumor pathology and their cellular source *(select the corresponding position from the second column for each position in the first column):*

Type of tumor		Cells that make up the tumor mass	
А	Melanoma	1	Lymphocytes
Б	Of basal cell carcinoma	2	Melanocytes
В	Squamous cell carcinoma	3	Basal cell keratinocytes
Г	Lymphoma	4	Keratinocytes of the thorny layer

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Ответ: A-2; B-3; C-4; D-1.

Closed-type tasks for establishing the sequence

Task 11.

Establish the sequence of development of the elements of the skin rash:

1. erosion
2. vesicle
3. krusta

Answer: 2; 1; 3.

Task 12.

Set the sequence of skin layers (from outside to inside):

1. Papillary layer of the dermis
2. The mesh layer of the dermis
3. The epidermis
4. Hypodermis

Answer: 3; 1; 2; 4.

Task 13.

Establish a sequence on the danger to the body of pigmented skin formations (from more to less dangerous):

1. Freckles
2. Melanoma
3. Dysplastic nevus
4. Basal cell carcinoma of the skin

Answer: 2;3;4;1.

PC-2 id - 6 Be able to interpret and analyze data from laboratory animal research methods to establish a diagnosis

Task 14.

Set the sequence of stages of the inflammatory skin reaction:

1. The stage of exudation
2. The stage of proliferation
3. The stage of alteration
4. The effect of the traumatic factor

Answer: 4; 3; 1; 2.

PC-2id-7 Should 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

Task 15.

Establish the sequence of dermal diseases according to the severity of the course:

1. Juvenile cellulite
2. Purulent-necrotic fasciitis
3. Sterile nodular panniculitis

Answer: 1; 3; 2.

AN OPEN TYPE TASK

Task 16.

Give a detailed answer to the question

Define the term "folliculitis".

Answer: Folliculitis is an inflammation of one or more hair follicles. This condition can occur anywhere on the hair-covered skin. It is visually manifested in the form of a skin rash of the type of pustules or vesicles.

Task 17.

Give a detailed answer to the question

Define the term "interdigital follicular cyst".

Answer: Interdigital follicular cyst is a type of pododermatitis and is a chronic recurrent inflammatory process of the interdigital space that is amenable only to surgical treatment. The disease is protracted and recurrent, and occurs in dogs of different breeds and ages, but more often in young adult dogs aged 1-3 years and weighing from 15 to 50 kg.

Task 18.

Give a detailed answer to the question

Define the term "viral nodular dermatitis of cattle".

Answer: viral nodular dermatitis of cattle is a highly contagious viral disease of cattle characterized by fever, damage to the lymphatic system, swelling of the subcutaneous tissue, formation of skin nodules, damage to the eyes and mucous membranes of the respiratory and digestive organs.

PC-2 id -9 Know the technique of conducting animal research using digital equipment and special (instrumental) methods in accordance with the guidelines, instructions, rules for diagnosis, prevention and treatment of animals

Task 19.

Give a detailed answer to the question

Define the term "candidiasis".

Answer: candidiasis – Candidomycosis (candidiasis, moniliasis, thrush, oidiomycosis, soormycosis, superficial blastomycosis) is a fungal disease of animals characterized by lesions of the skin, mucous membranes of the digestive tract and organs with the formation of whitish cheesy overlays, and sometimes the appearance of granulomas in internal organs.

Task 20.

Give a detailed answer to the question

Define the term "malasseziosis".

Answer: Malasseziasis is a skin disease caused by the yeast fungus malassezia dermatitis. Normally, the fungus can be found in small amounts on the skin and in the external ear canal of a dog and does not require treatment. The skin disease induced by this fungus occurs with such disorders in the body as: - allergic reactions, hormonal disorders, decreased immunity. Malacesia is not contagious to humans and other animals.

PC-3. Diagnosis based on the analysis of medical history data, general, special (instrumental) and laboratory research methods.

CLOSED-TYPE ASSIGNMENTS

Tasks of a combined type with the choice of one correct answer from the suggested options

PC-3id-1 Should be able to make a diagnosis in accordance with generally accepted criteria and classifications, as well as lists of animal diseases.

Task 1.

Choose the correct answer.

What is a keratinocyte?

1. A cell of subcutaneous fat
2. The epidermis cell
3. The dermis cell
4. The sebaceous gland cell

Answer: 2

Task 2.

Choose the correct answer.
What medications are used for allergic itching?
1. Antibiotics
2. Antipyretics
3. Antihistamines
4. Nonsteroidal anti-inflammatory drugs
Answer: 3

Task 3.
Choose the correct answer.
What protein gives strength to the epidermis?
1. Keratin
2. Collagen
3. Elastin
4. Albumin
Answer: 1

Task 4.
Choose the correct answer.
Is it autoimmune dermatitis?
1. The immune system's response to the animal's own proteins
2. The immune system's reaction to plant pollen
3. The reaction of the animal's immune system to the food it eats
4. The reaction of inflammatory cells to mechanical damage to the skin
Answer: 1

Task 5.
Choose the correct answer.
Are antihistamines used to treat autoimmune dermatitis?
1. Antihistamines
2. Nonsteroidal anti-inflammatory drugs
3. Antibacterial drugs
4. Steroidal anti-inflammatory drugs
Answer: 4

Closed-type compliance assignments

PC-3id-2 Should be able to use specialized information databases for the diagnosis of animal diseases

Task 6.

Establish a correspondence between the names of non-communicable skin diseases and the cause of their development *(for each position in the first column, select the appropriate position from the second column):*

Skin diseases		Cause	
A	Epidermolysis bullosa	1	Dysfunctions of connective tissue caused by a defect in collagen synthesis
B	Ehlers–Danlos syndrome	2	Dysfunction of half-desmoses
C	Hyperelasticity of the skin in sharpies	3	Disruption of melanin synthesis
D	Albinism	4	Excessive accumulation of hyaluronic acid due to increased expression of the HAS2 gene

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: A-2; B-1; C-4; D-3.

PC-3 id-3 Be able to document the results of clinical animal studies using digital technologies

Task 7.

Establish a correspondence between the names of non-communicable skin diseases and their main symptoms *(for each position in the first column, select the appropriate position from the second column):*

Skin Diseases		Symptoms	
A	Epidermolysis bullosa	1	Pigmentation disorder
B	Ehlers–Danlos syndrome	2	Brittle flaking skin
C	Hyperelasticity of the skin in sharpies	3	Hyper-elastic, easily torn skin
D	Albinism	4	Movable folded skin

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: A-2; B-3; C-4; D-1.

PC-3id-4 To know the methods of interpretation and data analysis of special (instrumental) methods of animal research.

Task 8.

Establish a correspondence between metabolic disorders of skin function and their symptoms *(for each position of the first column, select the appropriate position from the second column):*

Metabolic disorders of the skin		Symptoms	
A	Xeroderma	1	Excessive oiliness of the skin
B	Hyperkeratosis	2	Excessive skin moisture
C	Seborrhea	3	Thickening of the stratum corneum of the skin
D	Hyperhidrosis	4	Dry skin

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: А-4; Б-3; В-1; Г-2.

PC-3id-5 Should know the norms of indicators of the state of biological material of animals of different species and the reasons that cause deviations from the norms.

Task 9.

Establish a correspondence between the infectious skin disease and the pathogen *(select the corresponding position from the second column for each position in the first column):*

Infectious skin diseases		The causative agent	
A	Erysipeloid	1	The bacterium Staphylococcus intermedius
B	HOT SPOT	2	Is a bacterium of the genus Actinomyces
C	Actinomycosis	3	Staphylococcus aureus
D	Folliculitis	4	Gram-positive immobile rod Erysipelothrix rhusiopathiae

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: A-4; B-1; C-2; D-3.

Task 10.

Establish a correspondence between fungal skin diseases and the pathogen *(select the corresponding position from the second column for each position in the first column):*

Fungal skin diseases		The causative agent	
A	Malacesiosis	1	Fungi of the genus Trichophiton,
B	Trichophytosis	2	Yeast fungus malassezia dermatitis
C	Microsporia	3	Mushrooms of the genus Acharion
D	Scab	4	Fungi of the genus Microsporum

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: A-2; B-1; C-4; D-3.

Closed-type tasks for establishing the sequence

Task 11.

Establish the sequence of events in the development of an inflammatory reaction in the skin in response to the action of a pathogenic factor:

1. Isolation of inflammatory mediators and leukocyte chemotaxis factors
2. Contact of resident cells of innate immunity with damage or pathogen patterns
3. Clearing by inflammatory exudate cells of the site of primary damage from detritus and microorganisms
4. Migration of innate immune cells from the blood to the area of primary damage or infection

Answer: 2; 1; 4; 3.

Task 12.

Set the sequence of skin healing:

1. Epithelialization
2. Scar formation
3. Scar remodeling
4. Primary proliferation

Answer: 4; 2; 1; 3.

Task 13.

Establish the sequence of events in the development of an allergic skin reaction developing by the Type-1 hypersensitivity mechanism:

1. Secondary contact with the allergen
2. Histamine release by mast cells
3. Primary contact with the allergen
4. Production of allergen-specific Ig-E by lymphocytes

Answer: 3; 4; 1; 2.

Task 14.

Establish the sequence of dermatitis caused by hypersensitivity reactions according to the severity of the course:

1. Atopic dermatitis
2. Autoimmune dermatitis
3. Hives

Answer: 3; 1; 2.

Task 15.

Establish a sequence of different dermatitis according to the severity of the prognosis for

recovery:

1. Bacterial
2. Aseptic traumatic
3. Necrolytic
4. Atopic

Answer: 2; 1; 4; 3.

AN OPEN TYPE TASK

Task 16.

Give a detailed answer to the question.

Define the term "pyoderma".

Answer: Pyoderma is a purulent lesion of the skin and subcutaneous fat. It is a common name for a large group of skin diseases caused by pathogenic bacteria.

Task 17.

Give a detailed answer to the question.

Define the term "hydrolipidic skin mantle".

Answer: The hydrolipidic mantle of the skin (water-fat film) is a natural protective coating consisting mainly of water and various fats (lipids). It is an oily film that retains moisture and protects the skin from various adverse external factors: environmental influences, pollutants and microorganisms.

PC-3id-6 Know the etiology and pathogenesis of animal diseases of various species

Task 18.

Give a detailed answer to the question

Define the term "skin microbiome".

Answer: The skin microbiome is a collection of microorganisms that normally inhabit human and animal skin. They are found not only on its surface, but also in the sebaceous and sweat glands, hair follicles, and even in deeper layers such as the dermis and subcutaneous tissue. The microbiome acts as the first line of defense, preventing the entry and reproduction of pathogenic microorganisms. The microbiome interacts with the cells of the epidermis and strengthens its physical barrier, prevents the penetration of allergens, irritants and pollutants. The skin's microbiome produces various molecules that make up nutrients, antioxidants, and anti-inflammatory elements, which positively affects skin properties such as its firmness and elasticity, and protects the skin from aging. Disruption of the normal microbiome of the skin leads to the growth of pathogenic microflora. This leads to a deterioration of its ability to resist infections, the appearance of inflammation.

Task 19.

Give a detailed answer to the question

Define the term "mucocutaneous (mucocutaneous) pyoderma".

Answer: mucocutaneous (mucocutaneous) pyoderma of dogs is a bacterial infection of the junctions of the mucous membrane and skin, lesions in this disease are more often localized in the area of the animal's mouth.

PC-3id-7 Know generally accepted criteria and classifications of animal diseases, approved lists of animal diseases

Task 20.

Give a detailed answer to the question.

Define the term "HOT SPOT".

Answer: HOT SPOT is a typical skin infection in dogs that are often in the water and have a thick undercoat. A warm, humid climate also contributes to the appearance of a hotspot. The causative agent of the hotspot is the bacterium Staphylococcus intermedius, which normally lives on the surface of the skin. Humidity is considered to be a contributing factor to the appearance of

a hotspot. That is why the dense undercoat of retrievers is a favorable environment for the spread of bacteria.

PC-5 – Development of an animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary medicines of chemical and biological nature for the treatment of animals, taking into account their combined pharmacological effect on the body.

CLOSED-TYPE ASSIGNMENTS

Tasks of a combined type with the choice of one correct answer from the suggested options

PC-5id-1 Should be able to use specialized information databases when choosing animal treatment methods.

Task 1.

Choose the correct answer.

Are they responsible for the development of allergic dermatitis?

1. immunoglobulins M
2. immunoglobulins D
3. immunoglobulins E
4. immunoglobulins G responsible for the development of allergic dermatitis

Answer: 3

Task 2.

Choose the correct answer.

What method is used to identify the allergen to which the patient is sensitized?

1. Hematological examination
2. Intradermal tests
3. Biochemical blood analysis
4. Urinalysis

Answer: 2

Task 3.

Choose the correct answer.

What biological material is used to study a patient's sensitivity to an allergen by enzyme immunoassay?

1. Cerebrospinal fluid
2. Skin scraping
3. Blood serum
4. Intestinal contents

Answer: 3

Task 4.

Choose the correct answer.

What viral skin disease can humans become infected with from pigs?

1. Erysipeloid
2. African swine fever
3. Streptococcosis
4. Hemophilous polyserositis

Answer: 4

Task 5.

Choose the correct answer.

Who is the causative agent of actinomycosis?

1. Viruses
2. Pathogenic fungi

3. The simplest
4. Bacteria
Answer: 4

Closed-type compliance assignments

PC-5id-2 Should be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period.

Task 6.

Establish a correspondence between the drug and its mechanism of action *(for each position in the first column, select the appropriate position from the second column):*

Drugs		Mechanism of action	
A	Suprastin	1	Prostaglandin synthesis inhibitor
B	Dexamethasone	2	Antihistamine effect
C	Apoquel	3	Inhibitor of prostaglandin and leukotriene synthesis
D	Onsior	4	Inhibitor of synthesis of itching mediators

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: A-2; B-3; C-4; D-1.

PC-5 id - 3 Should be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period, including using digital technologies.

Task 7.

Establish a correspondence between the skin disease and the group of drugs used in their treatment *(for each position in the first column, select the appropriate position from the second column):*

Diseases		Groups of medicines	
A	Urticaria	1	Cytostatics
Б	Trichophytosis	2	Antihistamines
B	Carcinoma	3	Antimycotics
Г	Ubble wrap	4	Glycineurin inhibitors

Запишите в таблицу выбранные цифры под соответствующими буквами.

A	B	C	D

Answer: A-2; B-3; C-1; D-4.

Task 8.

Establish a correspondence between the type of spot on the skin and the cause of its occurrence *(for each position of the first column, select the appropriate position from the second column):*

Type of spot		The mechanism of occurrence	
A	Lentigo	1	An area of skin with fallen hair
B	Lichenification	2	Is the presence of red dots on the skin of the body, which appeared as a result of subcutaneous bleeding.
C	Purple	3	Skin changes with thickening and intensification of the pattern
D	Allopecia	4	Of hyperpigmented skin areas with the phenomenon of hyperkeratosis

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: A-4; B-3; C-2; D-1.

Task 9.

Establish a correspondence between the elements of the skin rash and their internal contents *(for each position of the first column, select the corresponding position from the second column):*

Elements of a skin rash		Content	
A	Blister	1	Pus
B	Pustule	2	Transparent liquid
C	Papule	3	Inflammatory exudate cells or tumors
D	Nodule	4	Saline Keratin plug

Write down the selected numbers under the corresponding letters in the table.

A	B	C	D

Answer: A-2; B-1; C-4; D-3.

PK-5id-4 Should be able to inject drugs into the animal body in various ways

Task 10.

Establish a correspondence between the generations of antihistamines and the side effects that patients experience when using them *(for each position in the first column, select the appropriate position from the second column):*

Generations of antihistamines		Type of side effect	
A	1st generation	1	Negative effects on the cardiovascular system
B	2nd generation	2	There is no pronounced side effect
C	3rd generation	3	Central nervous system depression

Write down the selected numbers under the corresponding letters in the table.

A	B	C

Answer: A-3; B-1; C-2.

Closed-type tasks for establishing the sequence

Task 11.

Establish the sequence of stages of skin tumor formation:

1. dysplasia
2. malignancy
3. benign neoplasm
4. malignant neoplasm

The answer is: 1; 2; 3; 4.

Task 12.

Establish the sequence of symptoms in atopy (atopic march):

1. bronchial asthma

2. atopic dermatitis
3. food allergies

Answer: 2; 3, 1.

PC-5id-5 To know the methods of drug treatment of sick animals and indications for their use in accordance with the guidelines, instructions, guidelines, rules of diagnosis, prevention and treatment of animals

Task 13.

Establish an algorithm for the use of drug therapy in the progression of urticaria:

1. Calcineurin inhibitors
2. Glucocorticosteroid preparations
3. Antihistamines in moderate therapeutic doses
4. High-dose antihistamines

Answer: 3; 4; 1; 2.

Task 14.

Set the sequence of stages of hair development:

1. Telogen
2. Anagen
3. Catagen

Answer: 2; 3; 1.

Task 15.

Establish the sequence leading to melanosis:

1. increased melanin synthesis in skin melanocytes
2. irritation of the skin
3. capture of melanin by keratinocytes
4. transfer of melanin from the body of melanocytes to their processes

Answer: 2; 1; 4; 3.

AN OPEN TYPE TASK

Task 16.

Give a detailed answer to the question.

Define the term "Canine skin histiocytoma".

Answer: Canine skin histiocytoma is a common benign skin tumor of dogs that develops from Langerhans cells.

Task 17.

Give a detailed answer to the question.

What is a horse sarcoid.

Answer: Sarcoid is a benign tumor pathology of the skin in horses, presumably caused by viruses (for example, bovine papillomaviruses). Sarcoids can be in a latent form (flat). A hairless, flaky area of skin that can thicken and change color over time. In a warty form (verrucous). It is characterized by a more pronounced thickening of the skin and the presence of cracks, crusts and multiple small intradermal formations, which sometimes ulcerate. In fibroblastic form. Various dense nodules form under the skin, which eventually grow into huge tumors and often become severely ulcerated.

PC-5id-8 Should know the technique of introducing medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods

Task 18.

Give a detailed answer to the question

What are emollients?

Answer: Emollients are emollients and moisturizers that create a protective barrier on the skin's surface, preventing moisture from evaporating. Emollients contain lipids and various biologically active components that help restore the epidermal barrier, protect the skin from drying out and the penetration of allergens and infections into it.

Task 19.

Give a detailed answer to the question

What is skin dysbiosis?

Answer: Skin dysbiosis (dysbiosis) is a violation of the balance of the skin microflora, in which the ratio of pathogenic and beneficial microorganisms is disrupted with an increase in the

number of pathogenic bacteria, which is manifested by increased dryness of the skin, peeling, rash and irritation.

Task 20.

Give a detailed answer to the question.

What is demodicosis?

Answer: Demodicosis is a skin lesion caused by a conditionally pathogenic parasite, a tick of the genus Demodex.

3.2 Typical tasks for intermediate certification

List of questions for the test

Emerging competence:

PC-2 Development of an animal research program and conducting clinical animal research using special (instrumental) and laboratory methods, including to clarify the diagnosis

PC-2ID-1 Should be able to examine animals using digital equipment and using special (instrumental) methods, including endoscopy, probing, catheterization, radiography, electrocardiography, and echography.

PC-2ID-2 Should be able to interpret and analyze data from special (instrumental) methods of animal research to verify the diagnosis

PK-2ID-4 Should 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 biological material under study, and transportation to the laboratory

PC-2ID-6 Should be able to interpret and analyze data from laboratory animal research methods to establish a diagnosis

PC-2ID-7 Should 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-9 Should know the technique of conducting animal research using digital equipment and special (instrumental) methods in accordance with the guidelines, instructions, rules for the diagnosis, prevention and treatment of animals

PC-3 Diagnosis based on the analysis of medical history data, general, special (instrumental) and laboratory research methods

PC-3ID-1 Should be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases

PC-3ID-2 Should be able to use specialized information databases for the diagnosis of animal diseases

PC-3ID-3 Should be able to document the results of clinical animal studies using digital technologies

PC-3ID-4 To know the methods of interpretation and data analysis of 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 from the norms

PC-3ID-6 Know the etiology and pathogenesis of animal diseases of various species

PC-3ID-7 Know generally accepted criteria and classifications of animal diseases, approved lists of animal diseases

PC-5 Development of an animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary medicines of chemical and biological nature for the treatment of animals, taking into account their combined pharmacological effect on the body

PC-5ID-1 Should be able to use specialized information databases when choosing animal

treatment methods

PK-5ID-2 Should be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period

PC-5ID-3 Should be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with prescriptions for a certain period, including using digital technologies.

PK-5ID-4 Should be able to inject drugs into the animal body in various ways

PC-5ID-5 To know the methods of drug treatment of sick animals and indications for their use in accordance with the guidelines, instructions, guidelines, rules of diagnosis, prevention and treatment of animals

PC-5ID-8 Should know the technique of introducing medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods.

1 Functions of the skin.

2 The structure of the epidermis and dermis.

3 Derivatives of the skin (claws, crumb, hair, sebaceous, sweat glands).

4 The structure of the hair follicle, the cycle of hair follicle development.

5. Physiology of the skin and general pathological processes in the skin.

6 Clinical examination of the skin: collection of anamnesis, examination, palpation of the skin.

7 Primary skin elements.

8 Secondary skin elements.

9 Methods of laboratory examination of the skin: intradermal allergic tests, skin scraping.

10 Methods of laboratory examination of the skin: bacteriological, mycological examination of the skin.

11 Methods of laboratory examination of the skin: smears-prints of pustules and exudate; skin biopsy; trichogram.

12 Demodicosis (etiology, clinical manifestation, diagnosis, treatment and prevention).

13 Sarcoptosis (etiology, clinical manifestation, diagnosis, treatment and prevention).

14. Notohedrosis (etiology, clinical manifestation, diagnosis, treatment and prevention).

15 Cheiletiosis (etiology, clinical manifestation, diagnosis, treatment and prevention).

16 Hair eaters (etiology, clinical manifestation, diagnosis, treatment and prevention).

17 Fleas (etiology, clinical manifestation, diagnosis, treatment and prevention).

18 Lice (etiology, clinical manifestation, diagnosis, treatment and prevention).

19 Primary idiopathic seborrhea (etiology, clinical manifestation, diagnosis, treatment and prevention).

20 Pigmentation disorders (etiology, clinical manifestation, diagnosis, treatment and prevention).

21 Urticaria (vascular edema).

22 Atopy (etiology, clinical manifestation, diagnosis, treatment and prevention).

23 Food allergy (etiology, clinical manifestation, diagnosis, treatment and prevention).

24 Allergic contact dermatitis (etiology, clinical manifestation, diagnosis, treatment and prevention).

Allergic flea dermatitis (etiology, clinical manifestation, diagnosis, treatment and prevention).

26 Pemphigus vulgaris (etiology, clinical manifestation, diagnosis, treatment and prevention).

27 Leaf-shaped pemphigus (etiology, clinical manifestation, diagnosis, treatment and prevention).

28 Systemic lupus erythematosus (etiology, clinical manifestation, diagnosis, treatment and prevention).

29 Discoid lupus erythematosus (etiology, clinical manifestation, diagnosis, treatment and prevention).

Vitamin A-dependent dermatosis (etiology, clinical manifestation, diagnosis, treatment and prevention).

31 Lack of essential unsaturated fatty acids (etiology, clinical manifestation, diagnosis, treatment and prevention).

32 Endocrine dermatoses (etiology, clinical manifestation, diagnosis, treatment and prevention).

33 Cysts of the skin (etiology, clinical manifestation, diagnosis, treatment and prevention).

34 Bacterial skin diseases: superficial and deep pyoderma (clinical symptoms, pathogens, diagnosis, treatment).

35 Fungal skin diseases (dermatomycosis): microsporia (etiology, clinical manifestation, diagnosis, treatment and prevention).

36 Fungal infection with Malassezia, Candida (etiology, clinical manifestation, diagnosis, treatment and prevention).

37 Viral papillomatosis (etiology, clinical manifestation, diagnosis, treatment and prevention).

4. METHODOLOGICAL MATERIALS DEFINING THE PROCEDURES FOR ASSESSING KNOWLEDGE, SKILLS AND ABILITIES AND WORK EXPERIENCE CHARACTERIZING THE STAGES OF COMPETENCE FORMATION

The control of the development of the discipline "Internal non-communicable diseases" is carried out in accordance with the regulation "On the forms, frequency and procedure of current monitoring of academic performance and intermediate certification of students". The current control of the discipline allows you to assess the degree of perception of the educational material and is carried out to evaluate the results of studying the sections / topics of the discipline.

Criteria for evaluating the performance of the control work:

The mark "excellent" control is written in full in compliance with the necessary sequence of actions; passed on time;

The mark "good" control is written correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark "satisfactory" is written correctly by at least half, 1-2 errors or one gross mistake were made, it was not delivered on time;

The mark "unsatisfactory" two (or more) gross mistakes were made in the course of work, which the student cannot correct even at the request of the teacher or the test was not passed at all.

Criteria for evaluating students' knowledge during testing:

The grade "excellent" is given if the student answers correctly at least 90% of the test tasks;

The grade "good" is given if the student answers correctly at least 80% of the test tasks;

The grade "satisfactory" is given if the correct answer of the student is at least 70 %;

The grade "unsatisfactory" is given if the student answers correctly to less than 70% of the test tasks.

Criteria for evaluating the colloquium:

Mark "excellent" the answer is given in full; correctly performs error analysis;

The mark is "good" the answer is given correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark is "satisfactory" the answer is given correctly by at least half, 1-2 errors or one gross error were made;

Mark "unsatisfactory" two (or more) gross errors were made during the response, which the student cannot correct even at the request of the teacher.

Criteria for evaluating the completion of the course work:

The mark "excellent" course is completed in full in compliance with the necessary sequence of actions; completed on time;

The mark "good" of the course is executed correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark "satisfactory" is written correctly by at least half, 1-2 errors or one gross error were made;

The mark "unsatisfactory" two (or more) gross mistakes were made during the writing of the work, which the student cannot correct even at the request of the teacher or the course paper has not been submitted at all.

Criteria for evaluating answers to test questions:

The mark "credited" is given in full; the answer is given correctly, taking into account 1-2 minor errors or 2-3 defects corrected independently at the request of the teacher, the answer is given correctly by at least half, 1-2 errors or one gross error are allowed;

The mark "not counted" two (or more) gross errors were made during the response, which the student cannot correct even at the request of the teacher.

Criteria for evaluating answers to exam questions:

The mark is "excellent" the answer is given in full;

The mark "good" correctly performs error analysis. The answer is given correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark is "satisfactory" the answer is given correctly by at least half, 1-2 errors or one gross error were made;

Mark "unsatisfactory" two (or more) gross errors were made during the response, which the student cannot correct even at the request of the teacher.

Criteria for evaluating the performance of situational tasks:

Mark "excellent" the task was completed in full with the necessary sequence of actions; completed on time;

The mark is "good" the task was completed correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark is "satisfactory" the task was completed correctly by at least half, 1-2 errors were made or one gross mistake was made, it was not delivered on time;

The mark "unsatisfactory" two (or more) gross mistakes were made in the course of work, which the student cannot correct even at the request of the teacher or the task is not done at all.

5. ACCESSIBILITY AND QUALITY OF EDUCATION FOR DISABLED PEOPLE

If necessary, persons with disabilities and persons with disabilities are given additional, time to prepare an answer for the test.

When conducting the procedure for evaluating the learning outcomes of disabled people and persons with disabilities, their own technical means can be used.

The procedure for evaluating the learning outcomes of disabled people and persons with disabilities in the discipline provides for the provision of information in forms adapted to the limitations of their health and perception of information:

For people with visual impairments:	– in printed form in enlarged font; – in the form of an electronic document.
For people with hearing impairments:	– in printed form; – in the form of an electronic document.
For people with disorders of the musculoskeletal system:	– in printed form, the device; – in the form of an electronic document.

When conducting the procedure for evaluating the learning outcomes of disabled people and persons with disabilities in the discipline, it ensures that the following additional requirements are met, depending on the individual characteristics of the students:

a) instructions on the procedure for conducting the assessment procedure are provided in an accessible form (orally, in writing);

b) an accessible form of assignment of assessment tools (in printed form, in printed form in enlarged font, in the form of an electronic document, assignments are read out by the teacher);

c) an accessible form of providing answers to tasks (written on paper, a set of answers on a computer, orally).

If necessary, for students with disabilities and the disabled, the procedure for evaluating the results of training in the discipline can be carried out in several stages.

The procedure for evaluating the learning outcomes of disabled people and persons with disabilities is allowed using distant learning technologies.