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.
April 10, 2026

Department of General, Private and Operative surgery

EDUCATIONAL WORK PROGRAM

for the discipline

" PHYSICAL THERAPY "

The level of higher education
SPECIALIST COURSE

Specialty 36.05.01 Veterinary Medicine
Profile: «General clinical veterinary medicine»
Full-time education
Education starts in 2026

Reviewed and adopted
at the meeting of the department
on March 18, 2026.
Protocol No. 8

Head of the Department
Of General, Private and Operative surgery,
Doctor of Veterinary Medicine, Professor
_____ Nechaev A.N.

Saint Petersburg
2026

1. GOALS AND OBJECTIVES OF DISCIPLINE

The main goal in training a veterinary specialist in the discipline "Physiotherapy" is to provide graduates with theoretical knowledge, practical skills and abilities in the use of physiotherapeutic methods for the treatment of surgical, obstetric and internal non-communicable diseases of animals.

To achieve this goal, it is necessary to solve the following tasks:

a) The general educational task is to in-depth familiarize students with the mechanisms of biological action of various factors of physical nature, on the basis of which methods of physiotherapy of animals and provides fundamental biological education in accordance with the requirements for higher educational institutions of biological profile.

b) The applied problem covers issues related to the technology of organizing and conducting physiotherapeutic procedures; general and specific biological effects of physiotherapy; fundamentals and methods of complex treatment and prevention of animal diseases and creates a conceptual basis for the implementation of interdisciplinary structural and logical connections in order to develop medical thinking skills.

c) The special task is to familiarize students with modern trends and methodological approaches used in physiotherapy to solve problems in animal husbandry and veterinary medicine, as well as existing achievements in this area.

2. LIST OF PLANNED MASTERING RESULTS BY DISCIPLINE (MODULE), CORRELATED WITH THE PLANNED RESULTS OF MASTERING THE 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 Federal State Educational Standard for Higher Education 36.05.01
"Veterinary medicine".

Area of professional activity:
13 Agriculture

Types of professional activity tasks:

- Medical;
- Expert control;
- Scientific and educational.

Competenciesstudent, formed as a result of mastering the discipline

Studying the discipline should form the following competencies:

a) Professional competencies (PC):

Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures using special equipment in compliance with safety rules (PC-6):

PC-6$_{ID-1}$Be able to use special equipment, including digital equipment, at carrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use

PC-6$_{ID-2}$Be able to restrain animals to ensure safety duringcarrying out medical procedures

PC-6$_{ID-4}$Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use

PC-6ID-5 Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body

PC-6ID-6 Know the methods and techniques of non-drug effects on the bodyanimals

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

Discipline B1.V.09 "Physiotherapy" refers to the part formed by participants in educational relations of the federal state educational standard of higher education in the specialty 36.05.01 "Veterinary Medicine" (specialty level).

Mastered by full-time students in the 8th semester

To study this discipline, a student must have a full range of knowledge and skills in the anatomy of domestic animals, cytology, physiology, clinical diagnostics, and surgery. The study of the discipline "Physiotherapy" is preceded by the study of the disciplines: anatomy, pathological anatomy, physiology, pathological physiology, clinical diagnostics, internal non-communicable diseases, clinical pharmacology, operative surgery.

4. SCOPE OF THE DISCIPLINE "Physiotherapy"

4.1. Scope of the discipline "Physiotherapy" for full-time study

Type of educational work	Total hours	Semesters
		8
Classroom lessons (total)	**32**	**32**
Including:		
Lectures, including interactive forms	16	16
Practical lessons (PL), including interactive forms, including:	16	16
Practical training (PT)	4	4
Independent work (total)	**40**	**40**
Type of intermediate certification (test, exam)	**Test**	**Test**
Total labor intensity hours/credits	**72/2**	**72/2**

5. CONTENT OF THE DISCIPLINE "Physiotherapy"

5.1. Content discipline "PHYSIOTHERAPY" for full-time study

No.	Name	Formablee competencies	Semester	Types of educational work, including independent student work and labor intensity (in hours)			
				L	PL	PT	IW
1.	Introduction to Veterinary Medicine physiotherapy. History of development. Classification of methods Safety precautions when working in a physiotherapy room and handling physiotherapy equipment.	Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy,used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	1	-	4

2.	Thermotherapy. Application cold and heat for therapeutic purposes (compresses, poultices, paraffin therapy, mud therapy).	The choice of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out medical procedures, including physiotherapeutic procedures, using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	2		4
3.	Phototherapy. Infrared, ultraviolet and laser radiation. The mechanism of biological action and the therapeutic and prophylactic effect of light therapy. Ultraviolet irradiation of blood. Indications and contraindications for light therapy. Calculation of therapeutic and preventive biodose. Ultraviolet irradiation for different species animals.	Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures with Using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	1	1	4

4.	Electrotherapy. Story development of electrotherapy. The mechanism of biological action and the therapeutic effect of direct, pulsed and high-frequency alternating currents. Magnetotherapy. Equipment. Indications and contraindications for electro- and magnetic therapy. Electrodes are attached to the dummy for different indications.	The choice of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out medical procedures, including physiotherapeutic procedures, using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	1	1	4
5.	Hydrotherapy. Mechanism biological action and therapeutic and prophylactic effect of hydrotherapy. Technique of procedures. Indications and contraindications for hydrotherapy.	Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures with Using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	2	-	4

6.	Aerosol therapy. Mechanism biological action and therapeutic and prophylactic effect of aerosol therapy. Equipment. Indications and contraindications for aerosol therapy.	The choice of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out medical procedures, including physiotherapeutic procedures, using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	1	-	4
7.	Ultrasonic, shock wave and vibroacoustic therapy. Mechanism of biological action and therapeutic effect. Equipment. Indications and contraindications for treatment with mechanical factors.	Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures with using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	2	-	4

8.	Massage. History of origin and development of massage. Anatomical and physiological basis of massage. Segment-reflex massage systems. Indications and contraindications for massage. Functional therapy. Various therapeutic massage techniques are performed on a dummy.	The choice of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out medical procedures, including physiotherapeutic procedures, using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	2	-	2	4
9.	Complex physiotherapy. Basic principles and rules drawing up a physiotherapeutic set of procedures for various animal diseases.	Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures with Using special equipment in compliance with safety rules (PC-6): **PC-6ID-1**Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use **PC-6ID-2**Be able to restrain animals to ensure safety duringcarrying out medical procedures **PC-6ID-4**Know the types of non-drug therapy, including physical therapy, used in veterinary medicine and indications for their use **PC-6ID-5**Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body **PC-6ID-6**Know the methods and techniques of non-drug effects on the bodyanimals	8	-	2	-	8
TOTAL FOR SEMESTER 8				**16**	**12**	**4**	**40**

6. THE LIST OF EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR THE INDEPENDENT WORK OF STUDENTS IN THE DISCIPLINE

6.1. Methodological guidelines for independent work

1. Electrotherapy of animals : an educational method. handbook for university students fac. vet. medicine full-time and part-time study, listening. FPC and vet practitioners. doctors / SPbGAVM; comp. L.N. Trudova. – Saint Petersburg : Publishing House of SPbGAVM, 2006. - 35 p.
2. Physiotherapy : methodological recommendations for practical classes of students on electrotherapy of animals / comp. L. N. Trudova; Ministry of Agriculture of the Russian Federation, SPbGAVM. - Saint Petersburg : SPbGAVM Publishing House, 2019. - 35 p. - URL: https://search.spbguvm.informsystema.ru/viewer.jsp?aWQ9NDUwJnBzPTM1 (date of access: 18.03.26). - Access mode: for authorization. EB SPbGUVM users.

6.2. Literature for independent work

1.Shakurov, M. S. Fundamentals of general veterinary surgery : [additional UMO] : a textbook / M. Sh. Shakurov. Saint Petersburg : Lan Publ., 2011. 252 p. (Textbooks for universities. Special literature).
2. Physiotherapy in the treatment, prevention and rehabilitation of animals: an educational and methodological guide for students, postgraduates, students of the FPC, young specialists in the disciplines of "Physiotherapy" and "Animal hygiene" specialty 05/36.01 "Veterinary Medicine" / I. I. Kochish, V. G. Turkov, L. V. Kletikova, V. V. Pronin. - Moscow ; Ivanovo : ZooVetKniga, 2016. - 290 p.
3. Basic facts about physical therapy for dogs and cats. Rehabilitation and pain syndrome control : a reference manual (includes a DVD) / edited by I. F. Vilkovyskiy; translated by K. I. Marchenko. Moscow : SCIENTIFIC LIBRARY, 2017. 316 p.
4. EHF therapy in clinical practice: a textbook for students of veterinary faculties and veterinary doctors of advanced training courses / comp.: S. P. Kovalev, A.V. Tuvardjiev, M. V. Vinokhodova; Ministry of Agriculture of the Russian Federation, SPbGUVM. - Saint Petersburg, 2021. 98 p

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

a) basic literature:

1. Physiotherapy in veterinary medicine : FUMO has been approved in the higher education system for an enlarged group of specialties and training areas "Veterinary and Animal science" as a textbook for interuniversity use in educational organizations implementing higher education programs in the specialty "Veterinary Medicine" / A. A. Stekolnikov, G. G. Shcherbakov, L. F. Sotnikova, L. N. Trudova ; under the general editorship of A. A. Stekolnikov. Saint Petersburg : Lan Publ., 2019. 372 p. (Textbooks for universities. Special literature).
2. General surgery of veterinary medicine : textbook / E. I. Veremey, A. A. Stekolnikov, B. S. Semenov [et al.] ; edited by A. A. Stekolnikov, E. I. Veremey. - 2nd ed. - St. Petersburg : Quadro, 2022. - 600 p.- URL: https://elibrica.com/042fd5b2-7ddc-4815-9500-24659d93d94d (Date of request: 26.062025). - Access mode: for authorization. users of the Elibrica EBS.
3. Complex therapy and therapeutic techniques in veterinary medicine : recommended by the Department of Personnel Policy and Education of the Ministry of Agriculture of Russia as a textbook for students of higher educational institutions specializing in 310800 — "Veterinary Medicine" / A. A. Stekolnikov, G. G. Shcherbakov, A.V. Korobov [et al.]; under the general editorship of A. A. Stekolnikov. - St. Petersburg : Lan, 2007. - 288 p. : ill. - (Textbooks for universities. Special literature)

b) additional literature:

1. Practicum on general and private veterinary surgery : a textbook for university students

specializing in veterinary medicine / A.V. Lebedev, V. A. Lukyanovsky, B. S. Semenov [et al.] ; edited by B. S. Semenov. Moscow : Kolos Publ., 2000. 536 p. (Textbooks and teaching aids for students)
2. Private veterinary surgery : a textbook for universities / B. S. Semenov, A.V. Lebedev, A. N. Eliseev [et al.] ; edited by B. S. Semenov and A.V. Lebedev. - 2nd ed. - Moscow : KolosS, 2003. - 496 p. : ill. - (Textbooks and textbooks for students of higher educational institutions).

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

In order to prepare for practical classes and perform independent work, students can use the following Internet resources:
1. http://operabelno.ru – The main surgical portal.
2. http://physiotherapy.ru – Portal on physiotherapy.
-Electronic library systems:
3. EBS "SPBGUVM"
4. Scientific electronic Library ELIBRARY.RU
5. Electronic books published by Prospekt Nauki publishing house http://prospektnauki.ru/ebooks/
6. EBS Yurayt
7. EBS "Elibrica" published by "Quadro" https://elibrica.com/

9. METHODOLOGICAL INSTRUCTIONS FOR STUDENTS ON MASTERING 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.

Contents of methodological recommendations may typically include:

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

The morning time is the most fruitful for educational work (from 8-14 o'clock), then the afternoon (from 16-19 o'clock) and the 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 (10-15 minutes) is required; after 4 hours of work, the break should be 1 hour. Part of the scientific organization of labor is mastering the technique of mental work. Normally, a student should devote about 10 hours a day to studying (6 hours at the university, 4 hours at home).

- Recommendations for working on lecture material When preparing for a lecture, the student is recommended to:

1) review the recordings of the previous lecture and recall previously studied material in memory;

2) It is useful to review the upcoming material of the future lecture;

3) if independent study of individual fragments of the topic of the last lecture is assigned, then it must be completed without delay;

4) prepare yourself psychologically for the lecture.

This work includes two main stages: taking notes of lectures and subsequent work on lecture material.

Note-taking means drawing up notes, i.e. a brief written statement of the content of something (oral presentation - speech, lecture, report, etc. or a written source - document, article, book, etc.).

The method of work when taking notes on oral presentations differs significantly from the method of work when taking notes from written sources.

By taking notes from written sources, the student has the opportunity to repeatedly read the desired passage of text, reflect on it, highlight the main thoughts of the author, briefly

formulate them, and then write them down. If necessary, he can also note his attitude to this point of view. While listening to a lecture, the student must put off most of the above-mentioned work for another time, trying to use every minute to record the lecture, and not to comprehend it - there is no time left for this. Therefore, when taking notes from a lecture, it is recommended to separate fields on each page for subsequent entries in addition to the notes. After recording a lecture or taking notes, you should not leave work on the lecture material until you begin preparing for the test. It is necessary to do as early as possible the work that accompanies note-taking of written sources and which was not possible to do while recording the lecture - read your notes, deciphering individual abbreviations, analyze the text, establish logical connections between its elements, in some cases show them graphically, highlight main thoughts, note issues that require additional processing, in particular, teacher consultation. When working on the text of a lecture, the student needs to pay special attention to the problematic questions posed by the teacher when giving the lecture, as well as to his assignments and recommendations.

For each lecture, practical lesson and laboratory work, the number, topic, list of issues covered, volume in hours and links to recommended literature are provided. For classes conducted in interactive forms, their organizational form must be indicated: computer simulation, business or role-playing game, analysis of a specific situation, etc.

- Recommendations for preparing for practical classes

Practical (seminar) classes constitute an important part of students' professional training. The main goal of conducting practical (seminar) classes is to develop analytical, creative thinking in students by acquiring practical skills. Practical classes are also conducted with the aim of deepening and consolidating the knowledge gained at lectures and in the process of independent work on regulatory documents, educational and scientific literature. When preparing for a practical lesson for students, it is necessary to study or repeat theoretical material on a given topic.

When preparing for a practical lesson, the student is recommended to adhere to the following algorithm;

1) get acquainted with the plan of the upcoming lesson;

2) study the literature sources that were recommended and familiarize yourself with the introductory notes to the relevant sections.

Methodological instructions for practical (seminar) classes in the discipline, along with the work program and schedule of the educational process, refer to methodological documents that determine the level of organization and quality of the educational process.

The content of practical (seminar) classes is recorded in the working curriculum of the disciplines in the sections "List of topics for practical (seminar) classes."

The most important component of any form of practical training is assignments. The basis of the assignment is an example, which is analyzed from the perspective of the theory developed in the lecture. As a rule, the main attention is paid to the formation of specific skills and abilities, which determines the content of students' activities - problem solving, laboratory work, clarification of the categories and concepts of science, which are a prerequisite for correct thinking and speech.

Practical (seminars)classes perform the following tasks:

- stimulate regular studying recommended literature, also attentive attention to the lecture course;
- secure knowledge, received in process lecture training and independent work on literature;
- expand the volume professionally significant knowledge, skills, abilities;
- allow you to check the correctness of previously acquired knowledge;
- instill skills of independent thinking and oral presentation;
- promote free operation terminology;
- provide the teacher with the opportunity to systematically monitor the level of students' independent work.

Methodological instructions for practical (seminar) classes in the discipline should be focused on modern business conditions, current regulatory documents, advanced technologies, on the latest achievements of science, technology and practice, on modern ideas about certain phenomena and the reality being studied.

• Recommendations for working with literature.

Working with literature is an important stage of a student's independent work in mastering a subject, contributing not only to consolidation of knowledge, but also to broadening his horizons, mental abilities, memory, ability to think, present and confirm his hypotheses and ideas. In addition, research skills necessary for future professional activities are developed.

When starting to study literature on a topic, it is necessary to make notes, extracts, and notes. It is imperative to take notes on the works of theorists, which allow one to comprehend the theoretical basis of the study. For the rest, you can limit yourself to extracts from studied sources. All extracts and quotations must have an exact "return address" (author, title of work, year of publication, page, etc.). It is advisable to write an abbreviated name of the question to which the extract or quotation relates. In addition, it is necessary to learn how to immediately compile a card index of specialized 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, and abstract journals. In this case, publications of sources (articles, book titles, etc.) should be written on separate cards, which must be filled out in accordance with the rules of bibliographic description (surname, initials of the author, title of work. Place of publication, publisher, year of publication, number of pages, and for journals articles – journal name, 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 further 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 contents, structure, what sources it was written on, etc.

• Explanations about working with 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 behavior 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 being tested or its part. Each question in the discipline must be answered correctly by choosing one option.

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

11. SCROLLINFORMATION TECHNOLOGIES USED IN THE EDUCATIONAL PROCESS

11.1 IN educational process By discipline provided usage information technologies:

- ✓ conducting practical classes using multimedia;
- ✓ interactive technologies (carrying out dialogues, collective discussion different approaches to solving one or another educational and professional task);
- ✓ interaction with students via email;
- ✓ joint Job in Electronic information and educational

environment SPbGUVM: https://spbguvm.ru/academy/eios

11.2. Software

List of licensed and freely distributed software, including domestically produced ones

No.	Name of recommended sections and topics of the technical and computer training program	License
1	MS PowerPoint	67580828
2	LibreOffice	free software
3	OS Alt Education 8	AAO.0022.00
4	ABIS "MARK-SQL"	02102014155
5	MS Windows 10	67580828
6	System ConsultantPlus	503/KL
7	Android OS	free software

12. MATERIAL AND TECHNICALBASE REQUIRED FOR IMPLEMENTATION OF THE EDUCATIONAL PROCESS IN THE DISCIPLINE

Name of the discipline (module), practice in accordance with the curriculum	**Name of special premises and premises for independent work**	**Equipping special rooms and rooms for independent work**
Physiotherapy	109 (196084, St. Petersburg, Chernigovskaya str., building 5) Classroom for conducting seminar-type classes, group and individual consultations, ongoing monitoring and intermediate certification	*Specialized furniture:* desks, chairs, educational board, Visual aids and educational materials: equipment for light therapy, electrotherapy, thermotherapy, kinesiotherapy
	206 Large reading room (196084, St. Petersburg, Chernigovskaya str., building 5) Room for independent work	*Specialized furniture*: tables, chairs *Technical training aids:* computers with an Internet connection and access to the electronic information and educational environment
	214 Small reading room (196084, St. Petersburg, Chernigovskaya str., building 5) Room for independent work	*Specialized furniture:* tables, chairs *Technical training aids:* computers with an Internet connection and access to the electronic information and educational environment
	324 Department of Information Technologies (196084, St. Petersburg, Chernigovskaya str., building 5) Room for storage and preventive maintenance of educational equipment	*Specialized furniture:* tables, chairs, special equipment, materials and spare parts for preventive maintenance of educational equipment

Developer:
Associate Professor, Candidate of Veterinary Sciences E.V. Kraskova

Abstract of the discipline's work program
B1.V.09 "Physiotherapy" for training specialists
specialty 36.05.01 Veterinary medicine
«General clinical veterinary medicine»

The purpose of mastering the discipline: study of physical methods for the prevention of healing of farm animals and poultry in modern conditions of industrial production of livestock products, as well as horses and small domestic animals.

Place of discipline in the curriculum: Discipline B1.V.09 "Physiotherapy" refers to the part formed by participants in educational relations of the federal state educational standard of higher education in specialty 36.05.01"Veterinary medicine" (specialty level).

Mastered by full-time students in the 8th semester.

Requirements for the results of mastering the discipline: As a result of mastering the discipline, the following professional competencies are formed:

PC-6 Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures using special equipment in compliance with safety rules

PC-6ID-1 Be able to use special equipment, including digitalequipment when carrying out medical, including physiotherapeutic procedures in accordance with the instructions for its operation

PC-6ID-2 Be able to capture animals to ensure safety intime of treatment procedures

PC-6ID-4 Know the types of non-drug therapy, includingphysiotherapy used in veterinary medicine and indications for their use

PC-6ID-5 Know the rules for safe work with specialequipment when carrying out non-drug effects on the animal body

PC-6ID-6 Know the methods and techniques of non-drug influences onanimal body

Brief content of the discipline: Introduction to veterinary physical therapy. Thermotherapy. Phototherapy. Electrotherapy. Hydrotherapy. Aerosol therapy. Ultrasound, shock wave and vibroacoustic therapy. Massage. Complex physiotherapy.

The total labor intensity of the discipline is: 72 academic hours (2 credit).

Final control in the discipline: test.

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 General, Private and Operative surgery

FUND OF ASSESMENT TOOLS
for the discipline
"PHYSICAL THERARY"

Level of higher education
SPECIALIST COURSE

Specialty 36.05.01 Veterinary medicine
«General clinical veterinary medicine»
Full-time education

Education starts in 2026

Saint Petersburg
2026

1. PASSPORT OF THE ASSESSMENT FUND

Table 1

No.	Formed competencies	Controlled sections (topics) disciplines	Evaluation tool
1.	**(PC-6):** Choice methods non-drug therapy, in volume number physiotherapeutic methods For trcatmcnt animals,carrying out medicinal, V volume number physiotherapeutic procedures With using Special equipment With compliance rules security **PC-6ID-1** Be able touse special number digital equipment, when carrying out medicinal, V volume number Physiotherapeutic procedures V compliance With instructions By his operation **PC-6ID-2** Be able tofix animals For Provision security in time carrying out medicinal procedures **PC-6ID-4** Know the species of non-drug therapy, including physiotherapy, used in veterinary medicine, and indications for their use **PC-6ID-5** Know the rulessafe work with special equipment for carrying out non-drug effects on organism of the animals **PC-6ID-6** Know the methods and technique of non-drug effects on the animal body	Introduction in veterinary physiotherapy. History of development. Classification of methods Safety precautions when working in a physiotherapy room and handling Physiotherapeutic equipment.	Test
2.		Thermotherapy. Application cold and heat for medicinal purposes (compresses, poultices, paraffin therapy, mud therapy)	Test
3.		Phototherapy. Infrared, ultraviolet and laser radiation. The mechanism of biological action and the therapeutic and prophylactic effect of light therapy. Autoultraviolet irradiation of blood. Indications and contraindications to light therapy	Test
4.		Electrotherapy. History of the development of electrotherapy. The mechanism of biological action and the therapeutic effect of direct, pulsed and high-frequency alternating currents. Magnetotherapy. Equipment. Indications and contraindications for electro- and magnetic therapy.	Test
5.		Hydrotherapy. The mechanism of biological action and the therapeutic and prophylactic effect of hydrotherapy. Technique of procedures. Indications and contraindications to hydrotherapy.	Test
6.		Aerosol therapy. Mechanism biological action and therapeutic and prophylactic effect of aerosol therapy. Equipment. Indications and contraindications for aerosol therapy.	Test

7.		Ultrasonic, shock wave and vibroacoustic therapy. Mechanism biological action and healing effect. Equipment. Indications and contraindications for treatment with mechanical factors.	Test
8.		Massage. History of origin and development of massage. Anatomy physiological basis massage. Segmental reflex massage systems. Indications and contraindications for massage. Functional therapy.	Test
9.		Complex physiotherapy. Basic principles and rules drawing up physiotherapeutic a set of procedures for various animal diseases.	Test

Exemplary scroll valuation means

table 2

No.	Name of the assessment tool	Brief description of the evaluation tool	Presentation of the assessment tool in the fund
1.	Test	System standardized tasks, allowing you to automate the procedure measuring the level of knowledge and skills of the student	Test task fund

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

Table 3

Planned resultsmastering competence	Mastery level				Evaluation tool
	unsatisfactory	satisfactorily	Fine	Great	
Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures using special equipment in compliance with safety rules (PC-6).					
PC-6ID-1 Know how to usespecial, including digital equipment, when carrying out medical, including physiotherapeutic procedures in accordance with the instructions for its operation	When solving standard problems basic skills have not been demonstrated, took place gross mistakes	Demonstrated all the major skills, all solved main tasks with some minor shortcomings, all completed assignments in full	Demonstrated we have basic skills when solving standard problems with some short comings	Demonstrated skills at solving non-standard problems without errors and omissions	Test
PC-6ID-2 Be able to recordanimals to ensure safety during treatment procedures	When solving standard problems basic skills have not been demonstrated, took place gross mistakes	Demonstrated all major skills, all solved main tasks with some minor shortcomings, all completed assignments in full	Demonstrated we have basic skills when solving standard problems with some short comings	Demonstrated skills at solving non-standard problems without errors and omissions	Test
PC-6ID-4 Know the speciesnon-drug therapy, including physiotherapy, used in veterinary medicine and indications for their use	Level of knowledge below minimum requirements, had the place is rude errors	Minimum acceptable level of knowledge a lot of minor mistakes were made,	Level of knowledge to the extent appropriate training program, admitted several not rough errors	Level of knowledge to the extent appropriate preparation program, without errors	Test

PC-6ID-5 Know the rulessafe work with special equipment when carrying out non-drug effects on the animal body	The level of knowledge is below the minimum requirements, had the place is rude errors	Minimum acceptable level knowledge, a lot of minor mistakes were made	The level of knowledge in the amount corresponding to the training program is allowed several not rough errors	The level of knowledge corresponds to the training program, without errors.	Test
PC-6ID-6 Know methods and techniquesnon-drug effects on the animal body	The level of knowledge is below the minimum requirements, had the place is rude errors	Minimum acceptable level knowledge, a lot of minor mistakes were made	The level of knowledge in the amount corresponding to the training program is allowed several not roug errors	The level of knowledge corresponds to the training program, without errors.	Test

4. CHECKLISTTASKS AND OTHER MATERIALS, KNOWLEDGE, ABILITIES, SKILLS AND EXPERIENCE REQUIRED FOR ASSESSMENT ACTIVITIES

4.1. Typical tasksfor ongoing progress monitoring

4.1.1. Tests

Competency assessment tests:
PK-6"Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures using special equipment in compliance with safety rules"
PK-6$_{ID-1}$Be able to use special equipment, including digital equipment, whencarrying out medical, including physiotherapeutic procedures in accordance with the instructions for its use

1. ***What kind of lampsused for infrared heating?***
A. Sollux
B. Luminescent erythema
B. Minin reflector
2. ***What are the indications for the use of cooling procedures?***
A. lymphoextravasate
B. bruise (first day after injury)
B. neoplasm
3. ***What are the indications?to the use of thermal procedures?***
A. hematoma (third day after injury)
B. chronic serous bursitis
B. lymphoextravasate
4. ***For what pathologies are thermal procedures contraindicated current?***
A. Fever
B. neoplasms
B. chronic fibrous arthritis
5. ***For chronic serous bursitis, what procedures are indicated?***
A. hot compress
B. poultice
B. cold clay
G. paraffin application
6. ***Which of the following physiotherapy procedures based on galvanic***
A. darsonvalization
B. therapeutic galvanization
B. drug electrophoresis
PC-6$_{ID-2}$Be able to restrain animals to ensure safety duringcarrying out medical procedures
7. ***What physical procedures require fixing the electrodes on the animal with rubber bandages?***
A. drug electrophoresis
B. darsalization
B. therapeutic galvanization
PC-6$_{ID-4}$Know the types of non-drug therapy, including physical therapy,used in veterinary medicine and indications for their use
8. ***For treatment rickets And osteodystrophy which apply methodsphototherapy?***
A. mid-wave ultraviolet radiation B. short-wave ultraviolet radiation C. low-intensity laser radiation
9. ***Which of the following procedures promotes the production of vitamin D in the skin?***
A. Ultraviolet irradiation of the A spectrum

B. Ultraviolet irradiation of the B spectrum
C. Ultraviolet irradiation of the C spectrum

10. ***Which of the following physical procedures require preliminary shaving of the hair:***

A. compresses B. UHF therapy
B. therapeutic galvanization

PC-6ID-6 Know the methods and techniques of non-drug effects on the bodyanimals

11. ***What physiotherapy procedures have an antimicrobial effect?***

A. irradiation with short-wave ultraviolet light
B. irradiation with medium-wave ultraviolet light
C. irradiation with long-wave ultraviolet light

12. ***What methods of physiotherapy are indicated for chronic eczema?***

A. darsonvalization
B. cold clay
C. laser therapy

13. ***Which methods physiotherapy apply V comprehensive treatmentanimals with chronic staphylococcosis?***

A. ultraviolet irradiation of blood
B. laser irradiation of blood
B. massage

14. ***WhichAre physiotherapy methods used for disc disease?***

A.irradiation with short-wave ultraviolet light
B. massage
B. low-level laser therapy

15. ***When treating skin ulcers, what physiotherapy procedures are used?***

A. low-energy laser
B. therapeutic galvanization
C. cold clay

16. ***For what diseases is ozone therapy used?***

A. rickets
B. dyspepsia
V. purulent wounds

17. ***What is the nature of ultrasound procedures?***

A.ultra high frequency electromagnetic waves
B. mechanical vibrations of an elastic medium in an inaudible acoustic range, propagating rectilinearly

18. ***Hyperemia after impact infrared radiation howcharacterized by ?***

A.occurs during irradiation
B. occurs after 4-6 hours
V. occurs within a day

19. ***Which light therapy method has the deepest penetrating ability into biological tissues?***

A. ultravioletlocal irradiation
B. infrared local irradiation
B. laser therapy

20. For aerosol therapy are used particles of drugs dispersed in what medium?

A. in the air
B. in another gas environment C. in oil

21. ***What is the physical nature of light?***

A. energy flow of penetrating radiation
B. flow of high frequency electromagnetic oscillations
B. flow of electromagnetic oscillationsoptical range

22. ***How deep does it penetrate?visible light into biological tissue?***

A. up to 1 mm
B. up to 1 cm
C. 2-3 cm
D. over 5 cm

23. ***To what depth does infrared radiation penetrate biological tissues?***

A. up to 1 mm
B. up to 1 cm

C. 2-3 cm
D. over 5 cm

24. ***To what depth does mid-wave ultraviolet radiation penetrate biological tissues?***

A. up to 1 mm
B. up to 1 cm
C. 2-3 cm
D. over 5 cm

25. ***What sourcesDo the lights give off ultraviolet radiation?***

A. incandescent lamps
B. fluorescent lamps
B. mercury-quartz arc lamps
D. "Sollux" lamp

26. ***What light sources produce infrared radiation?***

A. incandescent lamps
B. fluorescent lamps
B. mercury-quartz arc lamps
D. "Sollux" lamp

27. ***What is the biophysical effect of infrared radiation based on?***

A. resorption of inflammatory changes
B. reduction of pain
B. increased sweating
D. bactericidal effect

28. ***On how based specific action shortwaveultraviolet radiation?***

A. resorption of inflammatory changes
B. reduction of pain
B. increased sweating
D. bactericidal effect

29. ***At what the following pathological processes infraredIs radiation contraindicated?***

A. lipoma
B. atony of the proventriculus
B. paralysis of the facial nerve

PC-6ID-5 Know the rules for safe work with special equipment whencarrying out non-drug effects on the animal body

30. ***Can whether any medicinal substances use Formedicinal electrophoresis?***

A. yes B. no

31. ***Which from medicinal drugs are introduced at electrophoresis Withnegative pole?***

A. magnesium B. calcium C. iodine
G. novocaine
D. therapeutic mud

32. ***Which drugs are administered during electrophoresis from the positive pole?***

A. magnesium B. calcium
B. iodine
G. novocaine
D. therapeutic mud

33. ***Which drugs are administered during electrophoresis from the anode and cathode simultaneously?***

A. magnesium B. calcium C. iodine
G. novocaine
D. therapeutic mud

34. ***What methods of electrotherapy are carried out using the Iskra device?***

A. inductothermy
B. darsonvalization

B. diadynamic therapy

35. ***What methods of electrotherapy use vacuum electrodes?***

A. inductothermy
B. darsonvalization
B. diadynamic therapy

36. ***For what purposes are aerosols used in veterinary medicine?***

A. for disinfection
B. therapeutic inhalations C. for gastric irrigation

37. ***What methods of generating aerosols (spraying) do you know?***

A. mechanical
B. ultrasonic
C. Aeroionization

38. ***What factors have a therapeutic effect during water-therapeutic procedures?***

A. thermal
B. electrical
C. mechanical
D. chemical

39. ***What water temperature is considered indifferent? with hydrotherapy procedures?***

A. below 200
B. 20-330
V. 34-360
G. 37-390
D. above 400

40. ***What is peloidotherapy?***

A. sunbathing
B. mineral baths
C. mud baths

4.2. Typical tasks for intermediate certification

4.2.1. Questions for testing

Formed competence:

Selection of non-drug therapy methods, including physiotherapeutic methods for treating animals, carrying out therapeutic, including physiotherapeutic procedures using special equipment in compliance with safety rules (PC-6).

PC-6ID-1 Be able to use special, including digital equipment, when carrying out medical, including physiotherapeutic procedures in accordance with the instructions for its operatio

1. Indications for heat treatmentand contraindications.
2. What physical procedures are performed based ondirect current.
3. Rules for conducting coolingprocedures.
4. Indicationsand contraindications to massage.
5. Transfer advantages medicinal electrophoresis before injectionform of drug administration.
6. What combinations of massage techniques are used to obtain sedative and tonic effects.
7. List the basic rules for selecting physical factors when drawing up a comprehensive physiotherapy plan.

PC-6ID-2 Be able to restrain animals to ensure safety during treatment procedures

8. Describe the methods of local darsonvalization with a "quiet", "spark" discharge and with intracavitary introduction of electrodes.
9. List the advantages and disadvantages of UFL sources - lamps of the DRT and LE types.
10. Rules for conducting medicinal electrophoresis.
11. Indications and contraindications for ultravioletirradiation of animals
12. What is the difference in animal applications between helium neon and infrared therapeutic lasers.
13. Give characteristics therapeutic effect from different forms impulsesdiadynamic therapy (rectangular, pointed, two- and single-stroke).

14. 14.List readings and contraindications to treatment high frequency alternating currents.
15. What physical factors used in veterinary physiotherapy affect connective tissue, including scar tissue.

PC-6ID-4 Know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and indications for their use

16. List the physiotherapy procedures that can be performed in animals with acute aseptic inflammation.
17. What anatomical features of the structure of blood and lymphatic vessels should be taken into account when performing a massage.
18. Transfer which physical factors have phoretic (introducingmedicinal substances) ability.
19. Which physiotherapy procedures, when used in combination, give the best effect in the treatment of animals with chronic skin diseases.
20. What is a contraindication for the procedure of UHF therapy and inductothermy.
21. Ultraviolet rulesirradiation of wounds in animals.
22. What physical procedures relieve spasms from deep-lying blood vessels.
23. Reasons for the manifestation of complications during ultraviolet irradiation ("buckwheat disease" in herbivores and hyperergic reaction to UV rays in all species of animals and humans). Clinical picture and treatment.
24. What physical factors enhance the conduction of nerve impulses along peripheral nerves?
25. Indications and contraindications for ultrasound therapy in animals.
26. What is the difference between hotand warm compresses.
27. List the advantagesphysical therapy before other treatments.
28. What nonspecific biological effects do all physical factors in physiotherapy have?
29. What must be taken into account when calculating the time of irradiation of animals with UV rays for therapeutic and prophylactic purposes.

PC-6ID-5 Know the rules for safe work with special equipment when carrying out non-drug effects on the body of animals

30. List the basic principles of veterinary physiotherapy.
31. Formulate the concepts of electrical conductivity and dielectric constant of biological tissues. Which body tissues have high electrical conductivity and why?
32. What is the "oscillatory effect" of UHF therapy; with the help of what main structural components of tissues is it realized when exposed to a UHF electric field?
33. List the differences between ultraviolet erythema and infrared hyperemia.
34. 34.What are the ranges, spectral composition and penetration depth of optical radiation?
35.Characterize essence electrolysis, electroosmosis, polarization Andelectrodiffusion in biological tissues when exposed to direct current
36. How does the excitability of nervous and muscle tissue under the cathode and anode change when exposed to direct current?

PC-6ID-6 Know the methods and techniques of non-drug effects on the animal body

37. What factors ensure the strengthening of localblood flow in the tissues of the interelectrode space under the action of direct current?
38. How should the electrodes be positioned to obtain the maximum myo- and neurostimulating effect of low-frequency pulsed currents in the treatment of diseases of the nervous and muscle tissue?
39. Explain the essence of "silent" and "spark" discharges during local darsonvalization.
40. Explain the mechanism of the bactericidal effect of local darsonvalization. 41.What is the healing effect of Chizhevsky's chandelier?
42. What explains the fact that tissue is affected by the electrical and magnetic components of the electromagnetic field?
43. Characterize physical basis method UHF therapy And optionsactive factor.
44. How should capacitor plates be positioned to maximize the absorption of UHF field energy by tissues in superficial and deeply located pathological foci.
45. When exposed to which magnetic field, heat can be releasedin tissues? Why?
46. What is the depth of the therapeutic effect on tissues of low- and high-frequency magnetic therapy?

47. How to achieve greater heat generation in tissues during UHF therapy? 48.What is the effect of a low-frequency magnetic field on the liquid crystal structures of the membrane and the cytoplasm of cells? Explain the significance of the changes that occur in these structures for the functioning of cells.
49. What is the method of manual therapy?
50. What is the treatment in barracks? Indications and contraindications.

5. METHODOLOGICAL MATERIALS DETERMINING PROCEDURES FOR ASSESSING KNOWLEDGE, ABILITIES AND SKILLS AND ACTIVITY EXPERIENCE CHARACTERIZING THE STAGES OF COMPETENCY FORMATION

Criteria for assessing students' know ledge during testing:

The test result is assessed on a percentage rating scale. Each student is offered a set of test tasks consisting of 25 questions:

- **Mark "excellent"**– 25-22 correct answers.
- **Mark "good"**– 21-18 correct answers.
- **Mark "satisfactory"** –17-13 correct answers.
- **Mark "unsatisfactory"**– less than 13 correct answers

Knowledge criteria for the test:

- **Grade "passed"**must meet the parameters of any of the positive ratings ("excellent", "good", "satisfactory").
- **Grade "Not accepted"** must correspond parameters estimates "unsatisfactory"
- **Mark "excellent"**– all types of educational work provided for by the curriculum have been completed. The student demonstrates the correspondence of knowledge, skills and abilities to the indicators given in the tables, operates with acquired knowledge, skills and abilities, and applies them in situations of increased complexity. In this case, inaccuracies and difficulties may occur during analytical operations and the transfer of knowledge and skills to new, non-standard situations.
- **Mark "good"**– all types of educational work provided for by the curriculum have been completed. The student demonstrates the correspondence of knowledge, skills and abilities to the indicators given in the tables, operates with acquired knowledge, skills and abilities, and applies them in standard situations. In this case, minor errors, inaccuracies, and difficulties during analytical operations and the transfer of knowledge and skills to new, non-standard situations may be made.
- **Mark "satisfactory"**– one or more types of educational work provided for by the curriculum have not been completed. The student demonstrates incomplete compliance of knowledge, skills and abilities with the indicators given in the tables,

Significant mistakes are made, a partial lack of knowledge, skills and abilities is manifested in a number of indicators, the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations. –

- **Mark "unsatisfactory"**– the types of educational work provided for by the curriculum have not been completed. demonstrates incomplete compliance of knowledge, abilities, and skills with those given in the tables of indicators, significant errors are made, a lack of knowledge, abilities, and skills is manifested in a larger number of indicators; the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations

6. ACCESSIBILITY AND QUALITY OF EDUCATION FOR PERSONS WITH DISABILITIES

If necessary, disabled people and persons with limited health capabilities are given additional time to prepare an answer for the test.

When carrying out the procedure for assessing the learning outcomes of people with disabilities and people with limited health capabilities, their own technical means may be used.

The procedure for assessing the learning outcomes of people with disabilities and people with limited health capabilities 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 electronic formdocument.
For people with hearing impairments:	– in printed form, – in the form of an electronic document.
For persons with musculoskeletal disorders	– in printed form, apparatus: – in the form of an electronic document.

When carrying out the procedure for assessing the learning outcomes of disabled people and persons with limited health capabilities in the discipline, it ensures the fulfillment of the following additional requirements 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 for submitting assignments 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 assignments (written on paper, typing answers on a computer, orally).

If necessary, for students with disabilities and people with disabilities, the procedure for assessing learning outcomes in a discipline can be carried out in several stages.

The procedure for assessing the learning outcomes of disabled people and persons with limited health capabilities is permitted using distance learning technologies.