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 AA
April 10, 2026

Department of General, Private and Operative surgery

EDUCATIONAL WORK PROGRAM

for the discipline

"CENERAL AND PRIVATE SURGERY "

The level of higher education
SPECIALIST COURSE

Specialty 36.05.01 Veterinary Medicine
«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.Yu.

Saint Petersburg
2026

1. GOALS AND OBJECTIVES OF DISCIPLINE

The main goal in training a veterinary specialist in the discipline "General and Private Surgery" is to provide graduates with theoretical knowledge, practical skills and abilities in the prevention, diagnosis and treatment of the most common surgical 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 processes of inflammation, regeneration, transplantation and recovery; patterns and mechanisms of development of surgical pathology 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 surgical operations; general and specific signs of surgical diseases; methods of military field surgery; fundamentals and methods of complex treatment and prevention of injuries and various manifestations of surgical infection; clinical, hematological, morphological, biochemical and physiological indicators of the injured organism 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 surgery 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.

Competencies student, formed as a result of mastering the discipline
Studying the discipline should form the following competencies:
a) General professional competencies (GPC):
GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals
GPC-1ID-1 Know safety precautions and personal hygiene rules when examining animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.
GPC-1ID-2 Be able to collect and analyze anamnestic data, conduct laboratory andfunctional studies using digital computer technologies necessary to determine the biological status of animals.

GPC-1ID-3 Own practical skills to independently conduct clinicalexamination of the animal using classical research methods and digital technologies.

b) Professional competencies (PC):

PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method

PC-7ID-1 Be able to anesthetize animals before surgery usingnarcotic, neuroleptic and local anesthetic drugs

PC-7ID-2 Know surgical techniques for treating animals and indications for their use

PC-7ID-3 Know the drugs. used for animal anesthesia in veterinary surgery. doses and methods of their use, side effects

PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes

PC-8ID-1 Be able to dissect animal tissue using surgicaltools for creating operational access to the affected organ or tissues

PC-8ID-2 Be able to perform surgical intervention using surgicalinstruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

PC-8ID-3 Be able to stop bleeding using mechanical, physical, chemical and biological methods

PC-8ID-4 Be able to connect tissue using bloodless and bloody methods, drainagecavities, applying a bandage using dressings and frame materials

PC-8ID-5 Know the rules for using special equipment in the operating room, surgicaltools and dressings

PC-8ID-6 Know the technique surgical operations in veterinary medicine

PC-8ID-7 Know the types and techniques of suturing and dressings used in veterinary surgery

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

4.

Discipline B1.O.33 "General and private surgery" refers to the mandatory part of the disciplines of the federal state educational standard of higher education in specialty 36.05.01 "Veterinary Medicine" (specialty level).

Mastered by full-time students in 8, 9, 10 semesters

When teaching the discipline "General and private surgery", the knowledge and skills acquired by students in mastering the disciplines of animal anatomy, biochemistry, physiology and ethology of animals, pathological anatomy and forensic veterinary examination, pathological physiology, pharmacology, clinical diagnostics, operative surgery with topographic anatomy are used , epizootology, internal non-communicable diseases.

The discipline "General and private surgery" is a predecessor to academic disciplines such as:

1. Orthopedics.
2. Ophthalmology.
3. Dentistry.
4. Dermatology.
5. Physiotherapy.
6. Neurology.
7. Anesthesiology.
8. Veterinary radiology.

4. SCOPE OF THE DISCIPLINE "GENERAL AND PRIVATE SURGERY"

4.1. Scope of the discipline "General and private surgery" for full-time study

Type of educational work	Total hours	Semesters		
		8	9	10
Classroom lessons (total)	**143**	**48**	**50**	**45**
Including:	-	-	-	-
Lectures, including interactive forms	50	16	16	18
Practical lessons (PL), including interactive forms, including:	93	32	34	27
practical training (PT)	18	6	6	6
Independent work (total)	**181**	**60**	**58**	**63**
Coursework	+	-	-	+
Type of intermediate certification (test, exam)	**Test – 1 Exam – 2**	**exam**	**test**	**exam**
Total labor intensity hours/credits	**324/9**	**108/3**	**108/3**	**108/3**

5. CONTENT OF THE DISCIPLINE "GENERAL AND PRIVATE SURGERY"

5.1. Contents of the discipline "GENERAL AND PRIVATE SURGERY" for full-time study

No.	Name	Competencies	Semester	Types of educational work, including independent student work and labor intensity (in hours)			
				L	PL	PT	IW
1.	Safety precautions. Case history plan. Trauma. Types of injuries. Classification of injuries. First aid for injuries	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	3	-	5

2.	General and local reactions body to injury. Inflammation. Mechanism of action of hemotherapy and tissue therapy. Methods of using tissue preparations. Novocaine therapy. The clinic masters the technique of conducting novocaine blockades.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	2	6	5

3.	Open injuries (wounds), their types and principles of treatment. Surgical infection. Ulcers, fistulas, foreign bodies	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	2	-	5

4.	Closed mechanical soft tissue damage. Etiology, pathogenesis, clinical signs, treatment and prevention of bruises, hematomas, lymphatic extravasation, concussions and sprains	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety preeautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	-	2	-	5

5.	Wartime surgery disasters and emergencies. Features of military injuries	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	-	1		6

6.	Thermal, chemical and combined damage to animals	sGPC-1Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	-	1	-	6

7.	Tumors, their treatment	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	3	-	5

8.	Surgical skin diseases in animals and their treatment.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	2	-	4

9.	Diseases of muscles, blood vessels. Etiology, pathogenesis, diagnosis, treatment and prevention of diseases of muscles, blood and lymph vessels and lymph nodes	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	2	-	5

10.	Diseases of tendons, tendon vaginas and burs. Etiology, pathogenesis, diagnosis, prevention and treatment.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	2	-	4

11.	Bone diseases Etiology, pathogenesis, diagnosis, prevention and treatment.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	3	-	5

12.	Joint diseases. Etiology, pathogenesis, diagnosis, prevention and treatment.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	8	2	3	-	5
		TOTAL FOR SEMESTER 8		**16**	**26**	**6**	**60**

13.	Fundamentals of Veterinary ophthalmology. Anatomy and physiology of the organ of vision. Diseases of the protective apparatus of the eye. Diseases of the membranes of the eye. Eye examination methods. Massive eye diseases in animals. Basic eye surgeries. In the clinic, mastering methods for studying the eyes of animals	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	9	12	thirty	6	28

14.	Surgical diseases in head area.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	9	2	2	-	20

15.	Surgical diseases in areas of the back of the head and neck.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	9	2	2	-	10
		TOTAL FOR SEMESTER 9		**16**	**28**	**6**	**58**

16.	Functional characteristics locomotor apparatus of animals. Diagnosis of limb diseases. In the clinic, mastering methods for diagnosing diseases of the extremities.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	10	3	4	6	13

17.	Surgical diseases in area of the thoracic limb.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	10	3	4	-	10

18.	Surgical diseases in area of the pelvic limb.	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	10	3	4	-	10

19.	Surgical diseases in back and lumbar areas	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	10	3	3	-	10

20.	Surgical diseases in abdominal area and abdominal organs. Surgical diseases of the breast	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	10	3	3	-	10

21.	Surgical diseases genitourinary organs in males	**GPC-1**Capable of determining biological status and normative clinical indicators of organs and body systems of animals **GPC-1ID-1**Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC-1ID-2**Be able to collect and analyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC-1ID-3**Possess practical skills to independentlyconducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need to use surgical procedures methods in the treatment of animals, development of a surgical plan, including the choice of anesthesia method **PC-7ID-1**Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs **PC-7ID-2**Know operational techniques for treating animals and indications for them.application **PC-7ID-3**Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects **PC-8**Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to produce cutting animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention **PC-8ID-3**Be able to stop bleeding usingmechanical, physical, chemical and biological methods **PC-8ID-4**Be able to connect tissue using bloodless and bloody methods, drainage of cavities, application of a bandage using dressings and frame materials **PC-8ID-5**Know the rules for using special equipment inoperating room, surgical instruments and dressings **PC-8ID-6**Know the technique of performing surgical operations in veterinary medicine **PC-8ID-7**Know the types and techniques of sutures and dressings usedin veterinary surgery	10	3	3	-	20
		TOTAL FOR SEMESTER	**10**	**18**	**21**	**6**	**63**

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. Production situations with methods of clinical tasks in general surgery : an educational and methodical manual / comp.: V. V. Baylov, A. A. Stekolnikov, L. N. Trudova; Ministry of Agriculture of the Russian Federation, SPbGAVM. - Saint Petersburg : SPbGAVM Publishing House, 2014. - 31 p. – URL: https://search.spbguvm.informsystema.ru/viewer.jsp?aWQ9NjcmcHM9MzI = (date of access: 18.03.26). – Access mode: for authorization. EB SPbGUVM users.

2. Novocaine therapy in veterinary medicine: a methodological guide for students of the veterinary Faculty / comp. A.A. Stekolnikov, M.D. Spynu, O.V. Kukina; Ministry of Agriculture of the Russian Federation, SPbGAVM. – Saint Petersburg : Publishing House of SPbGAVM, 2008. - 59 p.

3. Intraosseous administration of medicinal substances to animals: an educational and methodical manual / A.A. Stekolnikov, V.V. Baylov, L.N. Trudova, A.O.Blusma; Ministry of Agriculture of the Russian Federation, SPbGAVM. - Saint Petersburg : SPbGAVM Publishing House, 2018. - 18 p. – URL: https://search.spbguvm.informsystema.ru/viewer.jsp?aWQ9MjMzJnBzPTIw (date of request: 18.03.26). – Access mode: for authorization. EB SPbGUVM users.

4. Methodological recommendations for the course work at the Department of General, Private and Operative Surgery / A. Y. Nechaev, A. O. Minina, E. V. Titova [et al.] ; Ministry of Agriculture of the Russian Federation, St. Petersburg State Medical University. - Saint Petersburg : Publishing House of SPbGUVM, 2023. - 52 p. - URL: https://search.spbguvm.informsystema.ru/viewer.jsp?aWQ9MTg1MDYmcHM9NTI = (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.Yagnikov, S.A. Stable-functional osteosynthesis in traumatology, orthopedics and oncoortopedia of dogs : [approved by the Ministry of Agriculture of the Russian Federation] : textbook for universities / S.A. Yagnikov. Moscow : Zoomedlit : KolosS, 2010. 48 p. (Textbooks and textbooks. student's manuals. higher. studies. establishments).

3. Videnin, V. N. Postoperative purulent-inflammatory complications in animals. Prevention and treatment : a textbook / V.N. Videnin. Saint Petersburg : Lan Publ., 2000. 160 p. (The World of Medicine).

4. Borisevich, V. B. Veterinary orthopedics. Diseases of hooves and hooves : a textbook and a practical guide / V.B. Borisevich. - Kirov, 1996. - 230 p. : ill.

5.Aliev, A. A.Experimental surgery : a textbook / A. A. Aliev. - 2nd additional and revised ed. - Moscow: Engineer, 1998. - 446 p. : 180 ill.

7. THE LIST OF BASIC AND ADDITIONAL LITERATURE NECESSARY FOR

MASTERING THE DISCIPLINE

a) basic literature:

1. 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: 18.03.26). - Access mode: for authorization. users of the Elibrica EBS.

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).

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 textbooks. the manual. for students. higher. studies. institution.).

2. General veterinary surgery : a textbook for students studying in the specialty "Veterinary medicine" / A.V. Lebedev, V. A. Lukyanovsky, B. S. Semenov [et al.]; edited by A.V. Lebedev, V.A. Lukyanovsky, B.S. Semenov. - Moscow : Kolos Publ., 2000. - 488s. : 4l.ill.:ill. - (Textbooks and studies. the manual. for students. higher. studies.

3. General surgery of veterinary medicine : [approved by the Ministry of Agriculture of the Russian Federation] : textbook / E. I. Veremey, A. A. Stekolnikov, B. S. Semenov [et al.] ; edited by A.A. Stekolnikov, E.I. Veremey. St. Petersburg : KVADRO, 2012. 600 p. (Textbooks and textbooks. manuals for higher education. studies. establishments).

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

Students can use the following online resources to prepare for practical classes and perform independent work.:

1. https://meduniver.com – Medical information website.
2. http://operabelno.ru – The main surgical portal.

Electronic library systems:

1. EBS "SPBGUVM"
2. Scientific electronic Library ELIBRARY.RU
3. Electronic books published by Prospekt Nauki publishing house http://prospektnauki.ru/ebooks/
4. EBS "Elibrica" published by "Quadro" https://elibrica.com /
5. EBC Urite

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 methodologicalrecommendations 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 ideas, 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 nd independent work on literature;

- expand the volumeprofessionally significant knowledge, skills, abilities;
- allow you to check the correctness of previously acquired knowledge;
- instill skills of independent thinking and oral presentation;
- promote free operationterminology;
- 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 economic 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.

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

According to the guidelines presented 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, 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 usageinformation technologies:

- ✓ conducting practical classes usingmultimedia;
- ✓ interactive technologies (carrying out dialogues, collective discussiondifferent approaches to solving one or another educational and professional task);
- ✓ interactionwith students via email;
- ✓ joint Job V Electronic information and educational environmentSPbGUVM: https://spbguvm.ru/academy/eios

11.2. Software

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

No.	Name of technical and technical programs recommended by sections and topics computer teaching aids	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 discipline (module),practice vaccording to educational Plan	**Name of special premises and premises for independent work**	**Equipping special rooms and rooms for independent work**
General and private surgery	101 (196084, St. Petersburg, st. Chernigovskaya, house 5) Educational classroom for classes seminar type, group and individual consultations, consultations current control and intermediate certification 104 (196084, St. Petersburg, st. Chernigovskaya, house 5) Educational classroom for classes seminar type, group and individual consultations, consultations Current control And intermediate certification	*Specialized furniture:* desks, chairs, educational board, aluminum trays.. *Visual benefits and educational materials:* bone, muscle, tendon-ligament preparations; posters by sections general and private surgery. *Specialized furniture:* desks, chairs, blackboard. *Technical facilities training:* multimedia projector, screen, laptop. *Visual aids and educational materials:* bone, muscle, tendon-ligament preparations; posters on sections of general and private surgery.

Abstract of the work program of discipline
B1.O.33 "General and private surgery"
specialty 36.05.01 Veterinary medicine
«General clinical veterinary medicine»

The purpose of mastering the discipline: The main goal in training a veterinary specialist in the discipline "General and Private Surgery" is to provide graduates with theoretical knowledge, practical skills and abilities in the prevention, diagnosis and treatment of the most common surgical diseases of animals.

Place of discipline in the curriculum: B1.O.33 "General and private surgery" basic part, studied by full-time students in 8th, 9th, 10th semesters.

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

a) General professional competencies (GPC):

GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals

GPC-1ID-1 Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

GPC -1ID-2 Be able to collect and analyze anamnestic data, conductlaboratory and functional studies using digital computer technologies necessary to determine the biological status of animals.

GPC -1ID-3 Possess practical skills to independently conductclinical examination of the animal using classical research methods and digital technologies.

b) Professional competencies (PC):

PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method

PC-7ID-1 Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs

PC-7ID-2 Know operational techniques for treating animals and indications for them.application

PC-7ID-3 Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects

PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes

PC-8ID-1 Be able to dissect animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues

PC-8ID-2 Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

PC-8ID-3 Be able to stop bleeding using mechanical, physical, chemical and biological methods

PC-8ID-4 Be able to connect tissue using bloodless and bloody methodsmethods, drainage of cavities, application of a bandage using dressings and frame materials

PC-8ID-5 Know the rules for using specialequipment in the operating room, surgical instruments and dressings

PC-8ID-6 Know the technique of performing surgical operations in veterinary medicine

PC-8ID-7 Know the types and techniques of suturing and dressings used inveterinary surgery

Brief content of the discipline: Injuries to farm and domestic animals. General and local reactions of the body to injury. Open injuries (wounds), their types and principles of treatment.

Closed mechanical injuries of soft tissues. Surgery in wartime, disasters and emergencies. Thermal, chemical and combined injuries in animals. Tumors, their treatment. Surgical skin diseases in animals and their treatment. Diseases of muscles, blood vessels and their treatment. Diseases of tendons, bones and joints, diagnosis and treatment. Surgical diseases in the area of the limbs, withers, chest and lower back. Diseases of the hooves and hooves. Surgical diseases in the head and torso area. Fundamentals of veterinary ophthalmology. Surgical diseases of the abdominal organs. Diseases of the male genitourinary system.

The total labor intensity of the discipline is: 324 academic hours (9 credit).

Final control in the discipline: test - 1, exam - 2

	105 (196084, St. Petersburg, Chernigovskaya str., building 5) Classroom for conducting seminar-type classes, group and individual consultations, Current control And intermediate certification	*Specialized furniture:* desks, chairs, blackboard. Visual *benefits And educational materials:* bone, muscle, tendon-ligament preparations; posters by sections of general and private surgery.
	122 (196084, St. Petersburg, Chernigovskaya str., building 5) Classroom for conducting seminar-type classes, group and individual consultations, ongoing control and intermediate certification	*Specialized furniture:* desks, chairs, blackboard. Visual *benefits And educational materials:* bone, muscle, tendon-ligament preparations; posters by sections of general and private surgery.
	124 (196084, St. Petersburg, Chernigovskaya str., building 5) Classroom for conducting seminar-type classes, group and individual consultations, ongoing control And intermediate certification	*Specialized furniture:*desks, chairs, blackboard. Visual *benefits And educational materials:* bone, muscle, tendon-ligament preparations; posters by sections of general and private surgery.
	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 electronic information and educational environment
	214 Small reading room (196084, Saint Petersburg, st. Chernigovskaya, 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

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

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
"GENERAL AND PRIVATE SURGERY"

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	Controlledsections (topics) disciplines	Evaluation tool
1.	**GPC-1**Capabledetermine the biological status and normative clinical indicators of organs and body systems of animals **GPC -1ID-1**Know the techniquesafety and personal hygiene rules when examining animals, methods of restraining them; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process. **GPC -1ID-2**Know how to collect andanalyze anamnestic data, conduct laboratory and functional studies using digital computer technologies necessary to determine the biological status of animals. **GPC -1ID-3**Ownpractical skills in independently conducting a clinical examination of an animal using classical research methods and digital technologies. **PC-7**Determining the need for use operativelysurgical methods in the treatment of animals, development of a plan for surgicaloperations, including the choice of anesthesia method **PC-7ID-1**Be able to produceanesthesia animals before operation Withuse of narcotic, neuroleptic Andlocal anesthetic drugs **PC-7ID-2**Know operationalanimal treatment methods and indications for their use **PC-7ID-3**Know the drugs.used Foranesthesia for animals in veterinary surgery. doses and methods of their use, side effects **PC-8** Carrying out operational surgical interventions Vanimal body in the treatment of various diseases, castration, sterilization, for cosmetic purposes **PC-8ID-1**Be able to producedissection of animal tissues using surgical instruments to create rapid access to the affected organ or tissues **PC-8ID-2**Be able to implementsurgical intervention using surgical instruments on the affected organ or tissue For provisioneffectiveness of operational impact **PC-8ID-3**Be able to stopbleeding With using mechanical, physical,chemical and biological methods **PC-8ID-4**Be able to producecompound fabrics bloodless and bloody methods, drainage of cavities, application of a bandage with usingdressings and frame materials **PC-8ID-5** Know the rulesuse of special equipment V operating room, surgical instruments and dressings **PC-8ID-6** Know the techniqueperforming surgical operations in veterinary medicine **PC-8ID-7**Know the species andsuturing and dressing techniques used in veterinary surgery	**Section 1. General surgery.** Topic 1. Trauma and injuries	Colloquium, tests,
2.		Topic 2. Inflammation and pathogenetic therapy	Colloquium, tests,
3.		Topic 3. Open soft tissue injuries	Colloquium, tests,
4.		Topic 4. Closed damage	Colloquium, tests,
5.		Topic 5. Wartime and disaster surgery	Colloquium, tests,
6.		Subject 6. Thermal and chemical skin damage	Colloquium, tests,
7.		Topic 7. Tumors	Colloquium, tests,
8.		Topic 8. Surgical skin diseases	Colloquium, tests, coursework
9.		Topic 9. Diseases of muscles and blood vessels.	Colloquium, tests, coursework
10.		Topic 10. Diseases of tendons, tendon sheaths and bursae	Colloquium, tests, coursework
eleven.		Topic 11. Bone diseases	Colloquium, tests, course work,
12.		Topic 12. Joint diseases	Colloquium, tests, c
13.		**Section 2. Private surgery**. Topic 13. Fundamentals of veterinary ophthalmology	Colloquium, tests,

		Topic 14. Surgical diseases in the head area	Colloquium, tests,
14.		Topic 15. Surgical diseases in the back of the head and neck	Colloquium, tests,
15.		Topic 16. Functional characteristics of the locomotor apparatus of animals. Diagnosticsli mb diseases	Colloquium, tests,
16.		Topic 17. Surgical diseases in thoracic limb area	Colloquium, tests,
17.		Topic 18. Surgical diseases in the pelvic limb area	Colloquium, tests,
18.		Topic 19. Surgical diseases in the back and lumbar region	Colloquium, tests,
19.		Topic 20. Surgical diseases in the abdomen and abdominal organs. Surgical diseases mammary gland	Colloquium, tests, Coursework
20.		Topic 21. Surgical diseases of the genitourinary organs males	Colloquium, tests, Coursework
21.			

Approximate list of assessment tools

table 2

No.	Name of the assessment facilities	Brief description of the evaluation tool	Presentation of the evaluation tool in the fund
1.	Colloquium	A means of monitoring the assimilation of educational material of a topic, section or sections of a discipline, organized as a training session in the form of an interview teacher with teaching	Questions on topics/sections of the discipline
2.	Test	A system of standardized tasks that allows you to automate the procedure measuring the level of knowledge and skills of the student	Test
3.	Course work(disease history)	A product of the student's independent work, which is a written presentation of the results obtained in treating an animal with surgical pathology, a theoretical analysis of a specific surgical disease, where the author reveals the essence of the problem under study, provides various treatment methods, and also justifies the chosen method of treatment and his own views on the problem	Coursework topicsworks

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

Table 3

Planned resultsmastering competence	Level development				Evaluation tool
	unsatisfactory	satisfactorily	Fine	Great	
GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals					
GPC-1$_{ID-1}$Know the technique safety and regulations personal hygiene for examination of animals, methods of their fixation; scheme clinical trial animal and order studies of individual body systems, including number using digital technology; methodology recognition pathological process.	Knowledge level below minimum requirements, had the place is rude errors	Minimum acceptable knowledge level, a lot was allowed minor mistakes	Level of knowledge in volume, appropriate program preparation, admitted some not rough errors	Level of knowledge in volume, appropriate program preparation, without errors.	Colloquium, tests, coursework Job (story illnesses)
GPC-1$_{ID-2}$Know how to collect and analyze anamnestic data, conduct laboratory and functional research using digital computer technologies needed for determining biological status of animals.	When deciding standard tasks Not demonstrated vans basic skills, took place gross mistakes	Demonstrated basic skills, solved typical tasks with not rude mistakes, all completed tasks, but not in ful	Demonstrated we are all basic skills, solved All main tasks with not rude mistakes, all completed tasks in full, but some with short comings	Demonstrated all major skills, all solved main tasks with separate insignificant shortcomings, all completed assignments in full	Colloquium, tests, coursework Job (story illnesses)

GPC-1$_{ID-3}$Ownpractical skills in independently conducting a clinical examination of an animal using classical research methods and digital technologies.	When solving standard problems basic skills have not been demonstrated, took placegross mistakes	There is a minimum set of skills to solve standard problems with some shortcomings	Demonstrated we have basic skills when solving standard problems with some short comings	Demonstrated skills at solving non-standard problems without errors and omissions	Colloquium, tests, coursework test
PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method					
PC-7$_{ID-2}$Know operationalanimal treatment methods 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 m a lot of minor mistakes were made inor mistakes were made	Level of knowledge to the extent appropriate training program, admitted several not roug herrors	Level of knowledge to the extent appropriate preparation program, without errors.	Colloquium, tests, coursework work (medical history) test

PC-7ID-3 Know the drugs. used For anesthesia for animals in veterinary surgery. doses and methods of their use, sideeffects	The level of knowledge is below the minimum requirements, had the place is rude errors	Minimum acceptable level of knowledge, many minor mistakes were made	Level of knowledge in the amount corresponding to the training program, several minor errors were made errors	The level of knowledge corresponds to the training program, without errors.	Colloquium, tests, coursework (medical history) test
PC-7ID-1 Be able to produceanesthesia animals before operation. With use of narcotic, neuroleptic. And local anesthetic drugs	When solving standard problems basic skills have not been demonstrated, took place gross mistakes	Demonstrated basic skills, solved typical problems with minor errors, completed all tasks, but not in full	Demonstrated We have all the basic skills, everything is solved main goals with minor errors, all tasks were completed in full, but some with shortcomings	Demonstrated all major Skills, all main tasks with some minor shortcomings have been solved, all tasks have been completed in full	Colloquium, tests, course work (medical history), test
PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes					
PC-8ID-1 Be able to producedissection fabrics animal using surgical instruments to create rapid access to the affected organ or tissues	When solving standard problems basic skills have not been demonstrated, took placegross mistakes	Demonstrated basic skills, solved typical problems with minor errors, completed all tasks, but not in full	Demonstrated We have all the basic skills, everything is solved main goals with minor errors, all tasks were completed in full, but some with flaws	Demonstrated all major skills, all main tasks with some minor shortcomings have been solved, all tasks have been completed in full	Colloquium, tests, course work (medical history), test
PC-8ID-2 Be able torealize operational intervention With using surgical instruments on the affected organ or tissue For provision effectiveness of operational impact	When solving standard problems basic skills have not been demonstrated, took place gross mistakes	Demonstrated basic skills, solved typical problems with minor errors, completed all tasks, but not in full	Demonstrated We have all the basic skills, everything is solved main goalswith minor errors, all tasks were completed in full, but some with flaws	Demonstrated all major skills, all main tasks with some minor shortcomings have been solved, all tasks have been completed in full	Colloquium, tests, course work (medical history), test

PC-8ID-3 Be able tostop bleeding with using mechanical, physical, chemical and biological methods	When solving standard problems not demonstrated vans basic skills, took place gross mistakes	Demonstrated basic skills, solved standard problems with non-rough errors, all tasks completed, but not in full	Demonstrated We have all the basic skills, everything is solved main tasks with minor errors, all tasks were completed in full volume, but some with flaws	Demonstrated all major skills, all main tasks with individual insignificants hort comings, all tasks were completed in full	Colloquium, tests, course work (history diseases) control Job
PC-8ID-4 Be able to producecompound fabrics bloodless and bloody methods, drainage of cavities, application of a bandage with using dressings and frame materials	When solving standard problems basic skills have not been demonstrated, took place gross mistakes	Demonstrated basic skills, solved typical problems with minor errors, completed all tasks, but not in full	Demonstrated We have all the basic skills, everything is solved main goalswith minor errors, all tasks were completed in full, but some with flaws	Demonstrated all major skills, all main tasks with some minor shortcomings have been solved, all tasks have been completed in full	Colloquium, tests, course work (medical history), test
PC-8ID-5 Know rulesuse of special equipment Voperating room, surgical instruments and dressings	The level of knowledge is below the minimum requirements, had the place is rude errors	Minimum acceptable level of knowledge, many minor mistakes were made	Level of knowledge in the amount corresponding to the training program, several minor errors were made errors	The level of knowledge corresponds to the training program, without errors.	Colloquium,tests, coursework (medical history) test
PC-8ID-6 Know techniquecarrying out surgical operations in veterinary medicine	Knowledge level below the minimum requirements, had the place is rudeerrors	Minimum acceptable level of knowledge, many minor mistakes were made	Level of knowledge in a volume corresponding to the training program, several not rougherrors	Level of knowledge in volume corresponding to the training program, without errors.	Colloquium, tests, coursework (medical history) test

PC-8ID-7 Know the species andsuturing and dressing techniques used in veterinary surgery	The level of knowledge is below the minimum requirements, had the place is rudeerrors	Minimum acceptable level of knowledge, many minor mistakes were made	Level of knowledge in the amount corresponding to the training program, several minor errors were made errors	The level of knowledge corresponds to the training program, without errors.	Colloquium,tests, coursework (medical history) test

4. LIST OF CHECK TASKS AND OTHER MATERIALS REQUIRED FOR ASSESSMENT OF KNOWLEDGE, ABILITIES, SKILLS AND ACTIVITY EXPERIENCE

4.1. Typical tasks for ongoing progress monitoring

4.1.1. Questions for the colloquium

Questions for assessing competence: GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals

GPC -1$_{ID-1}$ Know the techniquesafety and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

For the General Surgery section:

1. How to organize surgical treatment of animals on farms.
2. Types of injuries, their characteristics.
3. Classification of injuries.
4. Trauma and its types
5. First aid for injuries.
6. What complications are observed as a result of injury.

GPC -1$_{ID-2}$Be able to collect and analyze anamnestic data, conductlaboratory and functional studies using digital computer technologies necessary to determine the biological status of animals.

7. Collapse, clinical signs, treatment and prevention.
8. Shock. Its classification, pathogenesis, clinical picture.
9. Shock. Treatment and prevention.

GPC -1$_{ID-3}$Possess practical skills to independently conductclinical examination of the animal using classical research methods and digital technologies.

10. Types of bleeding and ways to stop them.
11. What is the mechanism of development of collapse.
12. Clinical signs and treatment of collapse

Competency assessment questions: PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method

PC-7$_{ID-1}$Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs

13. Classification of inflammation.
14. Normergic, hypoergic, hyperergic inflammation.
15. Types of inflammation in animals.

PC-7$_{ID-2}$Know operational animal treatment methods and indications for their use

16. Phases of inflammation and their characteristics.
17. Principles of treatment of acute aseptic inflammatory processes.
18. What is the classification and clinical signs of traumatic edema.

PC-7$_{ID-3}$Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects

19. What are the causes and clinical signs of infiltrates.
20. What is inflammatory proliferation?
21. What is the treatment and prevention of inflammatory edema, infiltrates, proliferates.

Competency assessment questions: PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes

PC-8$_{ID-1}$Be able to dissect animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues

22. Types of surgical treatment of wounds.

PC-8$_{ID-2}$Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

23. What are the properties of novocaine and what is its mechanism of action.
24. What are the indications and contraindications for novocaine therapy.
25. How to prepare a solution of novocaine.

PC-8$_{ID-3}$Be able to stop bleeding using mechanical,physical, chemical and biological methods

26. What blockades are used for diseases of the thoracic and pelvic limbs.
27. What blockades are used for chest and abdominal diseases? cavities.
28. What tissues of plant and animal origin are used as tissue therapy.
29. Methods for preparing preparations for tissue therapy.
30. What is the mechanism of action of tissue preparations.
31. Hemotherapy.
32. Methods of using tissue preparations.
33. Indications and contraindications for tissue therapy
34. Principles of treatment of chronic aseptic inflammation
35. Principles of treatment of purulent inflammations.

For the section Private surgery:

PC-8$_{ID-4}$Know how to join fabricin bloodless and bloody ways,drainage of cavities, application of a bandage using dressings and frame materials

1. What is included in the protective apparatus of the eye?

2. List the light-refracting media of the eye.
3. Tell about the structure of the third century.
4. Describe the structure of the upper and lower eyelids.
5. Talk about the muscular system of the eye.

PC-8$_{ID-5}$Know the rules for using special equipment in the operating room,surgical instruments and dressings

6. Describe the innervation and blood supply of the eye.
7. List the parts of the choroid.
8. Explain the structure of the lens.
9. How is the curvature of the lens regulated?
10. Talk about the innervation and blood supply of the cornea.
11. Describe the histological structure of the cornea.
12. Where are the meibomian glands located and what function do they perform?
13. Describe the structure of the white membrane of the eye.
14. What is and where are the limbus, tapetum and grape seeds?
15. List the functions of the ciliary body.

PC-8$_{ID-6}$Know the technique of performing surgical operations in veterinary medicine

16. What are the anterior and posterior chambers of the eye formed by, what are they filled with, and how is intraocular pressure maintained constant?
17. Explain the structure of the retina.
18. What is included in the lacrimal apparatus of the eye?
19. Describe the structure of the iris of the eye.
20. Describe the structure of the orbit of the eye.
21. What does the vitreous body of the eye consist of and what functions does it perform?
22. Describe the mechanism of visual perception.
23. What is refraction?
24. What is accommodation?
25. What do the terms emmetropia, myopia and hypermetropia mean?
26. What do the terms astigmatism and anisometropia mean?
27. Functional characteristics of the locomotor apparatus.
28. Lameness as a symptom of limb disease.

PC-8$_{ID-7}$Know the types and techniques of suturing and dressings used inveterinary surgery

29. Technology of planned surgical medical examination, organization and conduct of daily clinical monitoring of the condition of the limbs.
30. Thoracic limb statics apparatus.
31. Pelvic limb statics apparatus.
32. Dynamic limb function and lameness classification.
33. Diagnosis of diseases of the extremities: examination, palpation, auscultation and percussion
34. Functional research; examination with hoof forceps; spar test
35. Diseases in the area of the scapula and shoulder
36. Diseases of the elbow joint and forearm
37. Diseases of the wrist joint; pasterns and metatarsals
38. Diseases of the fetlock joint,
39. Differential diagnosis of diseases of the fetlock and coronary regions.

40. Inflammation, neoplasms and botryomycosis of the prescapular lymph nodes
41. Abscesses, ruptures of the muscles of the shoulder girdle
42. Rheumatic inflammation of the muscles of the shoulder girdle
43. Myopathy of the muscles of the shoulder girdle
44. Brachial plexus palsy
45. Radial and ulnar nerve palsies

4.1.2. Test topics for assessing competencies

4.1.3. Topics for term papers

Topics of coursework (case histories) for assessing competence:

GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals

GPC-1$_{ID-1}$Know safety precautions and rulespersonal hygiene when examining animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

GPC-1$_{ID-2}$Be able to collect and analyze anamnestic data, conduct laboratory andfunctional studies using digital computer technologies necessary to determine the biological status of animals.

GPC-1$_{ID-3}$Possess practicalskills to independently conduct clinicalexamination of the animal using classical research methods and digital technologies.

Pc-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method

PC-7$_{ID-1}$Be able to anesthetize animals before surgery usingnarcotic, neuroleptic and local anesthetic drugs

PC-7$_{ID-2}$Know surgical techniques for treating animals and indications for their use

PC-7$_{ID-3}$Know the drugs. used for animal anesthesia in veterinary surgery. doses and methods of their use, side effects

PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes

PC-8$_{ID-1}$Be able to dissect animal tissue using surgicaltools for creating quick access to the affected organ or tissues

PC-8$_{ID-2}$Be able to perform surgical intervention using surgicalinstruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

PC-8$_{ID-3}$Be able to stop bleeding using mechanical, physical, chemical and biological methods

PC-8$_{ID-4}$Be able to connect tissue using bloodless and bloody methods, drainagecavities, applying a bandage using dressings and frame materials

PC-8$_{ID-5}$Know the rules for using special equipment in the operating room, surgicaltools and dressings

PC-8$_{ID-6}$Know the technique of performing surgical operations in veterinary medicine

PC-8$_{ID-7}$Know the types and techniques of applicationsutures and dressings used in veterinary surgery

For the section of general surgery:

1. Wounds in animals, their treatment.
2. Hematoma in animals, their treatment.
3. Neoplasmsin animals, their treatment.
4. Muscle diseasesin animals, their treatment.
5. Ligament diseases in animals, their treatment.
6. Bone diseases in animals and their treatment.
7. Diseases of the joints in animals, their treatment.
8. Surgical skin diseases in animals, their treatment.
9. Tendon diseases in animals, their treatment.
10. Tendon diseasesvaginas in animals, their treatment.
11. Diseases of bursa in animals, their treatment.
12. Nerve diseases in animals, their treatment.
13. Vascular diseases in animals, their treatment.
14. Ulcers in animals, their treatment.
15. Fistulas in animalstheir treatment.
16. Lymphoextravasate in animals, their treatment.

17. Animal injurytheir treatment.
18. Phlegmon in animals, their treatment.
19. Burns in animals, their treatment. For private surgery:
20. Surgical diseases of the genitourinary organs of males and their treatment.
21. Surgical diseases of the breast and their treatment.
22. Surgical diseases in the area of the distal limb, their treatment.
23. Surgical diseases in the head area in animals and their treatment.
24. Eye diseases in animals and their treatment
25. Peritonitis in animalstheir treatment.
26. Prolapse in animals, their treatment
27. Pneumothorax in animals, their treatment
28. Post-castration complications in animals, their treatment
29. Discospondylitisin animals, their treatment
30. Intervertebral hernia in animals, their treatmen
31. Fractures and fissures of the vertebrae

4.1.4. Tests

Competency assessment tests:

GPC -1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals

GPC -1$_{ID-1}$Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

1. What pathologies occur due to feed injuries?

1. traumatic reticulitis
2. femoral hernia
3. blockage of the esophagus

2. What type of injury is damage to the udder teats of cows during milking?

1. operational injuries
2. sexual injuries

3.What is the name of the disease when individual fibers of tendons or ligaments rupture under strong tension, while maintaining anatomical integrity?

1. concussion
2. crushing
3. sprain

4. What are the basic principles of treatment for tendon and ligament ruptures?

1. rest, immobilization, suturing, therapeutic shoeing
2. stopping bleeding, administration of blood substitutes and tonics

5. What are the predisposing causes of bone fracture?

1. mineral metabolism disorder
2. allergic diseases
3. parasitic diseases

6. What is considered biological trauma?

1.vitamin deficiency
2.helminthiasis
3. fluorosis

7. Depending on the location and causes, what types of paralysis are distinguished?

1. central
2. central, peripheral
3. central, one-sided, two-sided
4. central, peripheral, bilateral and unilateral

8. What kind of disease is mumps?

1. periodontal inflammation
2. inflammation of the salivary gland
3. inflammation of the sweat gland

9. What are the causes of peritonitis?

1. penetrating wounds into the abdominal cavity
2. rupture of the pregnant uterus
3. pneumonia
4. perforation of the mesh with sharp foreign objects

10. What kind of disease is prolapse?

1. Displacement of internal organs under the skin through torn peritoneum and muscles
2. Displacement of internal organs under the skin with contracted peritoneum

11. When should an udder hematoma be opened?

1. on the first day of education
2. on the second day
3. on the fourth or fifth day

12. Puncture wounds of the sole can cause what disease?

1. salmonellosis
2. tetanus
3. purulent arthritis of the coffin joint

13. What is purulent inflammation of all tissues of the eyeball called?

1. ophthalmitis
2. panophthalmitis
3. periophthalmitis

GPC -1$_{ID-2}$ Be able to collect and analyze anamnestic data, conductlaboratory and functional studies using digital computer technologies necessary to determine the biological status of animals.

14. What is the name of a chronic non-inflammatory joint disease that occurs in the form of degenerative-dystrophic changes in articular cartilage and articulating bones, accompanied by reactive and reparative changes that lead to joint deformation?

1. contracture
2. ankylosis
3. arthrosis

15. What common eye diseases are identified in cattle?

1. rekketziozny conjunctivoceratitis
2. thelaziotic conjunctivoceratitis
3. A-vitaminosis conjunctivoceratitis
4. Botriomycosis conjunctivoceratitis

16. What manipulations are included in the treatment regimen for follicular conjunctivitis?

1. cauterization of follicles with lapis
2. removal of the third eyelid

3. curettage of follicles

17. ***What does it meanclinical term "panarthritis"?***

1. inflammation of all joints
2. inflammation synovium of the joint
3. purulent inflammation of all joint tissues

18. To carry out novocaine pathogenetic therapy, what concentrations of novocaine solutions are used?

1. 0.25%
2. 0.5%
3.3%

19. What clinical term corresponds to acute purulent-necrotic inflammation of the hair follicle, sebaceous gland and surrounding loose connective tissue?

1. folliculitis
2. boil
3. carbuncle

20. What are the common types of lameness:

1. hanging limb
2. supporting limb
3. wobbling limb
4. mixed
5. intermittent

21. What is included in the treatment regimen for corneal ulcers?

1. cauterization with astringent solutions
2. eye drops with antibiotics
3.anti-inflammatory hormonal eye medications

22. Is it blepharitis?

1. inflammation of the eyelids
2. inflammation of the lacrimal gland
3. inflammation of the cornea

GPC -1ID-3 Possess practical skills to independently conductclinical examination of the animal using classical research methods and digital technologies.

23. What is meant by the clinical term myopathosis?

1. non-inflammatory muscle disease
2. choroid disease
3. retinal dystrophy

24. What is meant by the clinical term retinitis?

1. inflammation of the retina
2. inflammation of the ciliary body
3. inflammation of the iris

***25.* What is meant by the clinical term glaucoma?**

1. increased intraocular pressure
2. decreased intraocular pressure
3. absence of intraocular pressure

26. What is meant by the clinical term panophthalmitis?

1. inflammation of all membranes of the eye

2. light-refracting structures
3. inflammation of all intraocular vessels

27. What is meant by the clinical term desmoiditis?

1.inflammation of ligaments
2. inflammation of the tendons
3. inflammation of the tendon sheaths

28. What is used to treat plantar ulcers?

1. potassium permanganate powder
2. saline solution
3. tar

29. What is used to treat a puncture wound?

1. furacillin solution
2. hydrogen peroxide solution
3. chlorhexidine solution

30. What is used to treat facial paralysis?

1. proserine
2. thiamine
3. cordiamine

31. What is used to treat a tendon sprain immediately after an injury?

1. cold
2. warm
3. immobilizing bandage
4. massage

32. What is used to treat tendon sprain in the chronic stage of the disease?

1. cold
2. warm
3. immobilizing bandage
4. massage

33. The supporting type of lameness indicates what diseases?

1. muscles
2. bones
3. hooves
4. joints
5. nerves

34. The type of hanging limb lameness indicates what diseases?

1. muscles
2. Bones
3. hooves
4. joints
5. nerves

35. The intermittent type of claudication indicates what diseases?

1. osteochondromatosis
2. thrombosis of the femoral artery
3. fracture of the femur

36. What types of arthritis are classified as specific?

1. brucellosis
2. tuberculosis
3. avitaminosis
4. rheumatic

37. What wounds can heal by primary intention?

1. with smooth edges of the wound
2. with torn edges of the wound
3. with a large wound cavity

38. What type of healing is preferable for a surgical wound?

1. by primary intention,
2. by secondary intention

39. What is meant by wound process?

1. process of wound formation
2. process of wound healing

40. Is the presence of granulations on the surface of the wound that protrude above the skin level a pathology?

1. is a pathology
2. is the norm

Competency assessment tests: PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method

PC-7$_{ID-1}$Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs

1. What are the contraindications for novocaine therapy?

1. open and closed mechanical damage
2. oncological diseases
3. tendency to allergic reactions

2. What determines the speed of analgesic action of anesthetic agents?

1. from lipophilicity
2. dissociation coefficient
3. presence of pyogenic mass

3. What is the technique of retrobulbar novocaine blockade?

1. the needle is inserted in the corner of the eye, moving the eyelid aside, towards the top of the animal's head
2. the needle is inserted through the eyeball towards the opposite ear
3. The needle is inserted at the border of the upper or lower edge of the orbit, closer to the outer corner of the eye, towards the opposite ear.

4. Is it true that bilateral vagosympathetic blockade can lead to cardiac arrest?

1. yes
2. no

5. Which of the following anesthetics is an ester?

1. lidocaine
2. novocaine

6.What is the percentage composition of novocaine solutions in pathogenetic therapy?

1. eleven%
2. 0.5%
3. 0.25%

7. What technique is used to perform a short novocaine blockade?

1. at the border with inflamed tissues, around and under the base of the lesion
2.under the fascial sheaths, to the bone, in the metacarpal/metatarsal area
3. prepared in the right hungry fossa, the needle insertion point is the middle of the line of the iliac tubercle with the last rib

8. For which animal, when blocking the stellate ganglion, is the triceps brachii muscle a convenient anatomical area?

1. cattle
2. horse
3. rabbit

9. Reducing the pain sensitivity of the udder can be achieved with the help of what novocaine blockade?

1. nerve block according to B.A. Bashkirov
2. nerve block according to D.D. Logvinov
3. novocaine blockade according to V.N. Aurorov

10. Who is the founder of novocaine therapy?

1. I.I Magda
2. K.I. Jackals
3. A.A. Vishnevsky

11. What are the indications for a short novocaine blockade?

1. for local local acute inflammation
2. for inflammatory processes of the abdominal or thoracic cavity
3. for local local chronic inflammation

PK-7$_{ID-2}$ Know surgical techniques for treating animals and indications for their application

12. What type of surgery is indicated for purulent panophthalmitis?

1. evisceration
2. enucleation
3. exenteration

13. What type of surgery is indicated for a neoplasm in the retrobulbar space?

1. evisceration
2. enucleation
3. exenteration

14. What does the conservative-operative method of treating bursitis include?

1. local novocaine blockade
2. extermination within healthy tissues
3. injection of an irritating drug into the bursa cavity, and after 3 days curettage of the cavity

15. What is the treatment method for follicular conjunctivitis?

1. removal of the third eyelid
2. cauterization of follicles with lapis
3. curettage of follicles

16. What is the treatment for cataracts?

1. instillation of anti-inflammatory eye drops
2. replacement of the lens with an artificial one
3. evisceration of the eyeball

17. What manipulations can cause paraphlebitis of the jugular vein in cattle?

1. incorrect injection of calcium chloride into the jugular vein
2. incorrect injection of glucose into the jugular vein

18. What is the main symptom of pulmonary artery thrombosis?

1. breathing disorder
2. heart rhythm disturbance

19. What injuries can cause fat embolism as a complication?

1. with a concussion
2. with fractures of long bones

20. What causes rhabdomyolysis in horses?

1. Excessive accumulation of lactic acid in the muscles
2. Excessive accumulation of creatinine in muscles

21. What is rheumatic myositis?

1. inflammatory pathology of muscle tissue in the pathogenesis of which there are autoimmune or allergic reactions of the body
2. inflammatory pathology of muscle tissue, the basis of the pathogenesis of which is alteration caused by a lack of oxygen

22. What causes an embolism?

1. blockage of a vessel with a fibrin clot
2. blockage of a vessel with an air bubble

23. What causes thrombosis?

1. blockage of a vessel with a fibrin clot
2. blockage of a vessel with an air bubble

24. Who is the founder of the doctrine of biogenic stimulants (tissue therapy)?

1. V.P.Filatov
2. I.P. Pavlov
3. A.A. Vishnevsky

25. At what temperature is the material for tissue therapy prepared?

1. -2..-4
2. +2..+4 +
3. +20…+25

26. Preparation of plant material for tissue therapy is carried out under what lighting?

1. in bright light
2. in darkness +
3. UV irradiation

27. What are the indications for tissue therapy?

1. cancer
2. chronic skin diseases
3. acute inflammation

PK-7$_{ID-3}$Know drugs, used For pain relief animals veterinary surgery, doses and methods of their use, side effects

28. What drugs are used for pain therapy in the postoperative period?

1. novocaine in 1-2% solution
2. NSAIDs
3. cordiamine

29. Can physiotherapy be used as monotherapy to treat neuritis?

1. yes
2. no

30. What does a nerve rupture lead to?

1. permanent paralysis
2. long-term paresis

31. What is inflammation of the nerves called?

1. Neuritis
2. neurosis
3. phimosis

32. What is inflammation of the spinal cord roots called?

1. Plexit
2. sciatica
3. plexite

33. What is the name of a neurological syndrome in which muscle strength decreases due to damage to the motor pathway of the nervous system or peripheral nerve?

1. paresis
2. paralysis

34. What is the name ofmultiple inflammation of peripheral nerves?

1. polyneuritis
2. mononeuritis
3. funiculitis

35. What is the name of the decrease in the threshold of sensitivity, leading to a sharp increase in the susceptibility of the sensory organs to the effects of stimuli of normal strength?

1. paresthesia
2. anesthesia
3. hyperesthesia

36. What is the name given to paralysis of one thoracic or one pelvic limb due to a disease of the corresponding center or conductor (group of nerve fibers) in the central nervous system?

1. monoplegia
2. hemiplegia
3. diplegia
4. tetraplegia

37. What is the name of the type of sensitivity disorder characterized by spontaneously occurring sensations of burning, tingling, and crawling?

1. paresthesia
2. anesthesia
3. hyperesthesia

38. What techniques are used to perform resection of necrotic soft cartilage?

1. circular novocaine blockade with 1% novocaine solution
2. conduction novocaine blockade according to I.I. Magda
3. novocaine blockade according to B.A. Bashkirov

39. What complications can occur with novocaine blockade?

1. broken needle
2. allergic reaction
3. cough

40. What products can be combined in one syringe with novocaine?

1. antibiotic
2. sulfonamide
3. blood

Competency assessment tests: PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes

PC-8_{ID-1}Be able to dissect animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues

1. What are the signs of an anaerobic surgical infection?

1. increased local and general temperature
2. crepitus and increased pain on palpation 3. tympanic sound on percussion
4. red-brown exudate with gas bubbles,
5. thick yellow purulent exudate without gas bubbles

2. What are the clinical forms of anaerobic infection?

1. gas abscess
2. gas phlegmon
3. Quincke's edema
4. malignant edema

3. What are the indications for removing drainage from a purulent cavity?

1. the outer end of the drainage has become dry
2. the outlet is blocked
3. 2 hours have passed since drainage installation
4. there is a deterioration in general condition after surgery

4. In what order are wounded animals examined?

1. establish the clinical status of the animal
2. determine the type of wound,
3. internal examination of the wound
4. For laboratory tests, blood, wound discharge, urine, and feces are taken
5. external examination of the wound
6. medical history

5. Treatment of a purulent wound in the first phase includes what stages?

1. toilet wound
2. applying a protective bandage
3. bringing the edges and walls of the wound together with sutures
4. installation of drainage

6. For long-term non-healing wounds with excessive granulation, what treatment is indicated?

1. rinsing with saline solution
2. cauterization
3. excision

7. For long-term non-healing wounds with delayed epithelization, what treatment is indicated?

1. rinsing with saline solution
2. tissue therapy
3. hemotherapy

8. What surgical treatment is indicated for a puncture wound?

1. dissection, shaping into a boat shape
2. complete excision
3. partial excision

9. Treatment of wounds complicated by purulent infection, what does it include?

1. surgical treatment
2. antibiotic therapy
3. application of heat
4. application of cold
5. use of drainage

10. What are the stages of hematoma treatment?

1. on days 1-2, apply "cold" with a pressure bandage
2. on days 1-2, use "heat"
3. for subcutaneous hematoma, aspiration is performed and antibiotics are administered with novocaine solution
4. on day 4-5 the cavity is opened

11. What are the stages of treating an animal with lymphatic extravasate?

1. "cold" is applied on days 1-2
2. "heat" is applied on days 1-2
3. immediately after the diagnostic punctureopen, inject an astringent solution.
4. apply a pressure bandage

PC-8$_{ID-2}$Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

12. For animals with skin burns from acid, how do they neutralize the lesion?

1. 2% acetic acid solution
2. 5% sodium bicarbonate solution, milk
3. 5% solution of copper sulfate, 10% solution of bleach or dry sand, potassium permanganate

13. For animals with skin burns from alkali, how can the lesion be neutralized?

1. 2% acetic acid solution
2. 5% sodium bicarbonate solution, milk
3. 5% solution of copper sulfate, 10% solution of bleach or dry sand, potassium permanganate

14. For animals with phosphorus skin burns, how can the lesion be neutralized?

1. 2% acetic acid solution
2. 5% sodium bicarbonate solution, milk
3. 5% solution of copper sulfate, 10% solution of bleach or dry sand, potassium permanganate

15. What is the necrotomy technique?

1. dissection of dead tissue within healthy tissue
2. transection of the nerve
3. completely removing the dead area

16. What is the procedure for necrectomy?

1. dissection of dead tissue within healthy tissue
2. transection of the nerve
3. completely removing the dead area

PC-8$_{ID-3}$Be able to stop bleeding using mechanical, physical, chemical and biological methods

17. What is the treatment for animals with 1st degree frostbite?

1. The skin is treated with iodine glycerin, ethyl alcohol and a bandage is applied.
2. treated with 5% iodine solution, 2% brilliant green solution, apply alcohol-drying dressings
3. use antibacterial ointments, alcohol solutions, powders

17. What is the treatment for animals with 2nd degree frostbite?

1. The skin is treated with iodine glycerin, ethyl alcohol and a bandage is applied.
2. treated with 5% iodine solution, 2% brilliant green solution, apply alcohol-drying dressings
3. use antibacterial ointments, alcohol solutions, powders

17. What is the treatment for animals with grade 3 frostbite?

1. The skin is treated with iodine glycerin, ethyl alcohol and a bandage is applied.
2. treated with 5% iodine solution, 2% brilliant green solution, apply alcohol-drying dressings
3. use antibacterial ointments, alcohol solutions, powders

PC-8$_{ID-4}$Know how to join fabricin bloodless and bloody ways, drainage of cavities, application of a bandage using dressings and frame materials

18. What is the treatment for a simple ulcer?

1: use various antiseptics in the form of powders (iodoform, xeroform) or ointments (Vishnevsky, xeroform, ichthyol, penicillin, zincsalicylic, etc.)

2. use irritants (10% alcohol solution of iodine, turpentine), 10% ichthyol and camphor ointments, UV irradiation

3. sprinkle with potassium permanganate powder or cauterize with perhydrol + apply a pressure bandage

19. What is the treatment for fungal ulcers?

1: use various antiseptics in the form of powders (iodoform, xeroform) or ointments (Vishnevsky, xeroform, ichthyol, penicillin, zincsalicylic, etc.)

2. use irritants (10% alcohol solution of iodine, turpentine), 10% ichthyol and camphor ointments, UV irradiation

3. sprinkle with potassium permanganate powder or cauterize with perhydrol + apply a pressure bandage

20. In what sequence should wounds contaminated with radioactive substances be treated?

1. abundant and repeated washing of the wound with various disinfectant solutions or sterile water, isotonic sodium chloride solution, chloramine solution, ethacridine lactate, potassium permanganate 1:5000, furacillin solution
2. dissection and treatment of the edges and bottom of the wound in order to maximize the removal of radioactive substances from the wound
3. repeated washing of the wound after cutting and excision
4. mechanical cleaning of the wound

21. What are the different types of bone fractures?

1. open and closed 2. hard and soft
3. epiphyseal, diaphyseal, metaphyseal
4. incomplete (crack, periosteal fractures, breaks, fractures, depression, perforated fractures, or holes)
5. complete (transverse, oblique, longitudinal, spiral, or helical, splintered, crushed, jagged, impacted, crushed, torn)
6. dry and wet

22. Whichsigns of a complete fracture?

1. severe lameness
2. no lameness
3. bone mobility
4. crepitus
5. severe pain and swelling

23. What are the types of periostitis based on etiology?

1. traumatic
2. spicy
3. inflammatory
4. Diffuse
5. toxic

24. What are the different types of osteosynthesis?

1. Intraosseous
2. Subosseous
3. External fixation

PC-8$_{ID-5}$Know the rules for using special equipment in the operating room, surgical instruments and dressings

25. What are the stages of treatment for otohematoma?

1. on the 3-4th day, the cavity is opened, the contents are removed, knotted sutures are applied (one above and below the ends of the incision and 2 on the sides of the incision, while the auricle is pierced through)
2. on the 2nd day, the cavity is opened and washed with saline solution

26. What are the stages of treatment for a foreign body in the pharynx?

1. removed through the oral cavity or through an incision during laryngotomy
2. Vaseline oil is poured into the mouth
3. Lugol's solution is poured into the mouth

27. How can wounds of the cranial chest, penetrating from the side, deeper, be accompanied by damage?

1. carotid artery
2. ulnar artery
3. jugular vein
4. trachea
5. radial nerve

PC-8$_{ID-6}$Know technique of surgical operations in veterinary medicine

28. What is the treatment for superficial chest wounds?

1. stopping bleeding
2. surgical treatment
3. Aseptic agents and capillary drainage agents are used
4. Conduct a course of antibiotic therapy

29. What is the treatment for small gaping chest wounds (without pneumothorox)?

1. elimination of shock phenomena
2. stopping internal bleeding 3. preventing wound infection
4. blood transfusion

30. What is the treatment for cows with milk cistern fistula?

1. apply a plaster cast
2. preparation of the surgical field, pain relief
3. excision of scar tissue around the fistula opening 4. stop bleeding, irrigate with antibiotics
5. in lactating women, they ensure the free outflow of milk from the nipple cistern

31. What is the sequence in the treatment of penetrating udder teats?

1. the edges of the wound are excised in the shape of a spindle
2. applying a tourniquet to prevent bleeding
3. pain relief using circular or conduction anesthesia
4. processing the operation field
5. ligate the bleeding vessels, irrigate with an antibiotic, remove the tourniquet
6. suturing the mucous membrane, submucosal layer (for example, furrier's according to Sadovsky), then the wall of the nipple (for example, eight-shaped sutures or vertical loop-shaped, or nodular).

PC-8$_{ID-7}$Know the types and techniques of suturing and dressings used inveterinary surgery

32. What is done if the bladder prolapses into a castration wound?

1.open the castration wound, destroy the adhesions along the entire length of the incision, lubricate the cavity with 5% boron ointment; a gauze drainage soaked in Levomikol
2 ointment is inserted into the wound, treated with isotonic sodium chloride solution, furacillin solution (1:5000), irrigated with antibiotic solutions, and adjusted
3. dissection of the dome of the scrotal cavity to ensure the outflow of inflammatory exudate; loose drainage of the wound with drainage moistened with a 3% solution of hydrogen peroxide

33. What is done in case of inflammation of the common vaginal membrane?

1. open the castration wound, destroy the adhesions onthe entire length of the cut, lubricate the cavity with 5% boron ointment; a gauze drainage soaked in Levomikol
2. ointment is inserted into the wound, treated with isotonic sodium chloride solution, furacillin solution (1:5000), irrigated with antibiotic solutions, and adjusted
3. dissection of the dome of the scrotal cavity to ensure the outflow of inflammatory exudate; loose drainage of the wound with drainage moistened with a 3% solution of hydrogen peroxide

34. What is done for scrotal phlegmon?

1.open the castration wound, destroy the adhesions along the entire length of the incision,

lubricate the cavity with 5% boron ointment; a gauze drainage soaked in Levomikol
2.ointment is inserted into the wound, treated with isotonic sodium chloride solution, furacillin solution (1:5000), irrigated with antibiotic solutions, and adjusted
3. dissection of the dome of the scrotal cavity to ensure the outflow of inflammatory exudate; loose drainage of the wound with drainage moistened with a 3% solution of hydrogen peroxide

35. What types of lameness are usually distinguished?

1. hanging limb
2. leaning limb
3. wobbling limb
4. mixed
5. intermittent

36. Lameness associated with the musculoskeletal system can be a manifestation of what disease?

1. tendonitis
2. desmoiditis
3. mumps
4. dermoid

37. Lameness associated with damage to the nervous system can be a manifestation of what disease?

1. plexitis
1. neuritis
3. cyclita

38. What is the treatment for animals with snake bites?

1. pull the limb tightly near and above the bite 2.
massage
3. Inject 0.25 - 1% freshly prepared potassium permanganate solution (or 2% bleach solution) around the bite site.
4. steroidal anti-inflammatory hormones

39. In support-type lameness, where is the pathological focus most often found?

1. in the hooves
2. in the joints
3. in nerves and muscles
4. in bones
5. in tendons and ligaments

40. In case of lameness of a hanging limb, where is the pathological focus most often found?

1. in the hooves
2. in the joints
3. in nerves and muscles
4. in bones
5. in tendons and ligaments

4.2. Typical tasks for intermediate certification

4.2.1. Questions for testing

Formablecompetence:

GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals

GPC-1$_{ID-1}$ Know the techniquesafety and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

For the section Private surgery:

1. What is included in the protective apparatus of the eye?

2. List the light-refracting media of the eye.
3. Tell about the structure of the third century.
4. Describe the structure of the upper and lower eyelids.
5. Talk about the muscular system of the eye.
6. Describe the innervation and blood supply of the eye.
7. List the parts of the choroid.

GPC-1$_{ID-2}$Be able to collect and analyze anamnestic data, conductlaboratory and functional studies using digital computer technologies necessary to determine the biological status of animals.

8. Explain the structure of the lens.
9. How is the curvature of the lens regulated?
10. Talk about the innervation and blood supply of the cornea.
11. Describe the histological structure of the cornea.
12. Where are the meibomian glands located and what function do they perform?
13. Describe the structure of the white membrane of the eye.

GPC-1$_{ID-3}$Possess practical skills to independently conductclinical examination of the animal using classical research methods and digital technologies.

14. What is a limbus and where is it located?
15. What is tapetum and where is it located?
16. What are grape seeds and where are they found?
17. List the functions of the ciliary body.
18. What are the anterior and posterior chambers of the eye formed by, what are they filled with, and how is intraocular pressure maintained constant?
19. Explain the structure of the retina.
20. What is included in the lacrimal apparatus of the eye?
21. Composition of tear fluid
22. The importance of the blood-ophthalmic barrier
23.. Talk about the structure of the iris.
24. Describe the structure of the orbit of the eye.
25. What does the vitreous body of the eye consist of and what functions does it perform?
26. Describe the mechanism of visual perception.
27. What is refraction?
28. What is accommodation?
29. What do the terms emmetropia, myopia and hypermetropia mean?
30. What do the terms astigmatism and anisometropia mean?

PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method

PC-7$_{ID-1}$Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs

31. Othalmoscopy method.
32. Purken-Sanson image method.
33. Definition of visualabilities in animals.
34. Keratoscopy method.
35. Technique for retrobulbar administration of drugs.

PC-7$_{ID-2}$Know operationalanimal treatment methods and indications for their use

36. Surgical treatment of entropion.
37. Surgical treatment of eversion of the eyelids.
38. Technique for evisceration of the eyeball.
39. Technique for enucleation of the eyeball.

40. Technique of exenteration of the eyeball.

PC-7$_{ID-3}$Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects

41. Surgical treatment of cataracts.
42. Tactics for treating opacities of the transparent media of the eye.
43. Tactics for treating hemorrhages in the chambers of the eye.
44. Treatment tactics for superficial vascular keratitis

PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes

PC-8$_{ID-1}$Be able to dissect animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues

PC-8$_{ID-2}$Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

45. Treatment tactics for deep vascular keratitis.
46. Treatment tactics for increased intraocular pressure.
47. Differential diagnostics telesic And requetsious conjuncti valkeratitis.

PC-8$_{ID-3}$Be able to stop bleeding using mechanical,physical, chemical and biological methods

PC-8$_{ID-4}$Know how to join fabricin bloodless and bloody ways,drainage of cavities, application of a bandage using dressings and frame materials

48. Treatment tactics for follicular conjunctivitis.
49. Tactics for the treatment of superficial, deep and penetrating wounds of the cornea.
50. Treatment tactics for iridocyclochoreoiditis.
51. Treatment tactics for corneal ulcers.
52. Tactics of treatment of aseptic and purulent conjunctivitis.
53. Treatment tactics for orbital phlegmon.

PC-8$_{ID-5}$Know the rules for using special equipment in the operating room,surgical instruments and dressings

PC-8$_{ID-6}$Knowtechnique of surgical operations in veterinary medicine

54. Treatment tactics for eyeball dislocation.
55. Diagnosis of orbital fractures and periorbital phlegmon.
56. Diagnosis of eyeball muscle ruptures.
57. Diagnosis of aseptic and purulent keratitis.
58. Diagnosis of inflammation of the eyelids.
59. Diagnosis of cataracts.
60. Diagnosis of glaucoma.

PC-8$_{ID-7}$Know the types and techniques of suturing and dressings used inveterinary surgery

61. Diagnosis of iridocyclochoreoiditis.
62. Diagnosis of retinal detachment and atrophy.
63. Diagnosis of diseases of the lacrimal apparatus.
64. Corneal anesthesia methods
65. Methods of pain relief for the eyeball

4.2.2. Questions for the exam

For 4th year students

Formed competence:

GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals

GPC-1$_{ID-1}$Know safety precautions and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

1. Clinical forms of inflammation (by the nature of the exudate and its course)
2. Trauma and its classification.
3. Auto- and heterohemotherapy.
4. Novocain therapy (mechanism actions, readings And contraindications Toapplication).
5. Tissue therapy (mechanism of action, indications and contraindications for use).
6. Biology of the wound process.
7. Types of wound healing.

GPC-1$_{ID-2}$Be able to collect and analyze anamnestic data, conductlaboratory and functional studies using digital computer technologies necessary to determine the biological status of animals.

8. Mechanical antiseptics in the treatment of wounds.
9. Clinical signs and treatment of wounds with anaerobic infection.
10. The concept of wound infection (microbial contamination, wound microflora, wound infection).
11. Wound infection and its prevention.
12. Clinical forms of anaerobic infection, conditions in the body that promote and prevent its development.

GPC-1$_{ID-3}$Possess practical skills to independently conductclinical examination of the animal using classical research methods and digital technologies.

13. Antibiotics in the treatment of purulent inflammation.
14. Principles of treatment of purulent inflammatory processes.
15. Cellulitis (pathogenesis, clinical signs and treatment).
16. Clinical forms of sepsis.
17. Treatment for sepsis.
18. Lymphoextravasate.
19. Hematoma
20. Joint wounds.
21. Joint dislocations.

PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method

PC-7$_{ID-1}$Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs

22. Aseptic arthritis.
23. Joint contractures.
24. Ankylosis of the joints.
25. Osteochondromatosis of the joints.
26. Arthrosis of the joints.
27. False joint and its causes.

PC-7$_{ID-2}$Know operational animal treatment methods and indications for their use

28. Purulent arthritis (causes, stages of development, clinical signs).
29. Purulent arthritis (diagnosis and treatment)
30. Dermatitis.
31. Eczema.
32. Ulcers.

PC-7$_{ID-3}$Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects

33. Treatment of burn disease.
34. Thermal burns.
35. Chemical burns.
36. Myositis.
37. Rheumatic myositis.
38. Differential diagnosis of deforming arthritis and arthrosis.
39. Purulent osteomyelitis.

PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes

PC-8$_{ID-1}$Be able to dissect animal tissue usingsurgical instruments to create rapid access to the affected organ or tissues

40. Periostitis.
41. Healing of fracturesand conditions conducive to this healing.
42. Necrosis and caries of bones.
43. Fistulas (etiology, clinical signs, treatment).
44. Physical, chemical, biological antiseptics in the treatment of wounds

PC-8$_{ID-2}$Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

45. Foreign bodies in the body.
46. Diseases of peripheral nerves (radiculitis, plexitis, neuritis). Paresis and paralysis (etiology, clinical signs, treatment).
47. Benign neoplasms (pathogenesis, clinical signs, diagnosis, treatment).

PC-8$_{ID-3}$Be able to stop bleeding using mechanical, physical, chemical and biological methods

48. Actinomycosis.
49. Botriomycosis.
50. Diagnosis and treatment of bone fractures.
51. Classification of joint diseases.
52. Bone fractures and their classification.
53. Examination of a wounded animal.
54. Bursitis.
55. Myopathoses

PC-8$_{ID-4}$ Know how to join fabric in bloodless and bloody ways, drainage of cavities, application of a bandage using dressings and frame materials

56. Concussions and contusions of the brain and spinal cord.
57. Abscesses (clinical signs and treatment).
58. Features of healing wounds in various animal species.
59. Bruises
60. Malignant neoplasms (pathogenesis, clinical signs, diagnosis, treatment)
61. Tetanus

PC-8$_{ID-5}$ Know the rules for using special equipment in the operating room, surgical instruments and dressings

62. Traumatic shock, its clinical signs, prevention and treatment

63. Types of inflammation in carnivores and horses with injuries
64. Types of inflammation in cattle and small ruminants and pigs with injuries
65. Species feat uresinflammation in birds and rodents due to injuries
66. Collapse, its causes, clinical signs and treatment

PC-8$_{ID-6}$ Know technique of surgical operations in veterinary medicine

67. Inflammation of the lymphatic vessels and lymph nodes (causes, clinical signs and treatment)
68. Furunculosis (causes, clinical signs and treatment)
69. Folliculitis (causes, clinical signs and treatment)
70. Elephanthiasis (causes, clinical signs and treatment)
71. Sprained ligaments and tendons (causes, clinical signs and treatment)
72. Ligament and tendon rupture (causes, clinical signs and treatment)
73. Inflammation of ligaments and tendons (causes, clinical signs and treatment)
74. Frostbite.
75. Cattle injuries and their prevention
76. Pig injuries and its prevention
77. Principles of treatment of animals with anaerobic surgical infection
78. Classification of benign neoplasms
79. Classification of malignant neoplasms
80. Principles of treatment of acute aseptic inflammations
81. Principles of treatment of chronic aseptic inflammation
82. Tendon wounds
83. Inflammation of tendon sheaths

PC-8$_{ID-7}$Know the types and techniques of suturing and dressings used inveterinary surgery

84. Retrobulbar novocaine blockade according to V.N. Aurorov (indications, technique)
85. Visceral novocaine blockade according to L.G. Smirnov (indications, technique in piglets and calves)
86. Suprapleural novocaine blockade By V.V. Mosin (indications, techniquecarrying out)
87. Lumbar (perinephric) novocaine blockade in horses and dogs according to I.Ya. Tikhonin (indications, technique)
88. Lumbar (perinephric) novocaine blockade in cattle according to M.M. Senkin (indications, technique)
89. Blockade of udder nerves in cows according to B.A. Bashkirov (indications, technique)

For 5th year students

GPC-1 Capable of determining the biological status and normative clinical indicators of organs and body systems of animals

GPC-1$_{ID-1}$ Know the techniquesafety and personal hygiene rules whenexamination of animals, methods of their fixation; schemes for a clinical study of an animal and the procedure for studying individual body systems, including using digital technologies; methodology for recognizing the pathological process.

1. Methods for examining eyes in animals.
2. Periodicinflammation of the eyes in horses.
3. Iridocyclochoreoiditis (uveitis).
4. Reckettsial conjunctivitis keratitisin cattle.
5. Panophthalmitis.
6. Inflammation of the cornea (classification, etiology, clinical signs, treatment).

7. Diseases of the lens (clouding, absence of the lens and its displacement).
8. Thelaziotic conjunctivitis in animals
9. Conjunctivitis (serous, purulent, fibrinous) etiopathogenesis, clinical signs, treatment and prevention).
10. Glaucoma.

GPC-1$_{ID-2}$Be able to collect and analyze anamnestic data, conductlaboratory and functional studies using digital computer technologies necessary to determine the biological status of animals.

11. A - vitamin deficiency keratoconjunctivitis (etiopathogenesis, clinical signs, treatment and prevention).
12. Diseases of the bone orbit and periorbit (fractures, bone cracks, orbital phlegmon).
13. Diseases of the retina and optic nerve.

GPC-1$_{ID-3}$Possess practical skills to independently conductclinical examination of the animal using classical research methods and digital technologies.

14. Inflammation of the eyelids.
15. Turning of the eyelids. 16. Eversion of the eyelids.
17. Dislocation of the eyeball (species and breed predisposition, etiology, clinical signs, treatment).
18. Corneal ulcers.
19. Corneal wounds and their complications. Treatment. Hemorrhages in the anterior chamber of the eye.

PC-7 Determining the need to use surgical methods in the treatment of animals, developing a plan for a surgical operation, including the choice of anesthesia method
PC-7$_{ID-1}$Be able to anesthetize animals before surgery withuse of narcotic, neuroleptic and local anesthetic drugs

20. Foreign bodies on the cornea and in the anterior chamber of the eye.
21. Diseases of the lacrimal apparatus.
22. Feather grass disease of animals. 23. Retention cysts and ranulae of the oral cavity
24. Mumps in animals(etiopathogenesis, diagnosis, treatment)
25. Nosebleeds (etiopathogenesis, diagnosis, treatment)
PC-7$_{ID-2}$Know operationalanimal treatment methods and indications for their use
26. Facial paralysis
27. Trigeminal nerve palsy
28. Inflammation of the frontal sinus.
29. Inflammation of the maxillary sinus.
30. Damage to the horn.

PC-7$_{ID-3}$Know the drugs. used for pain relief in animalsveterinary surgery. doses and methods of their use, side effects

31. Ear diseases (auricular hematoma, foreign bodies in the ear canal).
32. Inflammation of the outer, middle and inner ear in animals
33. Tongue ulcer.
34. Diseases in the back of the head (bruise, hematoma, lymphatic extravasation, bursitis, phlegmon, necrosis of the occipital-spinous ligament)
35. Phlebitis and thrombophlebitis of the jugular vein.

PC-8 Carrying out surgical intervention in the body of animals in the treatment of various diseases, castration, sterilization, for cosmetic purposes
PC-8$_{ID-1}$Be able to dissect animal tissue usingsurgical instruments to create rapid access to the affected

organ or tissues
36. Diverticula, foreign bodies and esophageal ruptures.
37. Diseases in the withers area (edema, hematoma, lymphatic extravasation, bursitis, phlegmon, necrosis of the occipital-spinous ligament, caries of the spinous processes)
38. Chest wall wounds and their complications (hemothorax, pneumothorax). 39.Dilatation and displacement of the abomasum.
40. Hematoma and lymphatic extravasation of the abdominal wall.
41. Prolapse of intestinal loopsand other organs under the skin (prolapse in the abdominal area).
42. Peritonitis.

PC-8$_{ID-2}$Be able to perform surgical intervention usingsurgical instruments on the affected organ or tissue to ensure the effectiveness of surgical intervention

43. Spondylitis, spondyloarthrosis and spondyloarthritis.
44. Fractures and dislocations of the cervical vertebrae
45. Fractures and dislocations of the lumbar vertebrae
46. Intervertebral hernia
47. Myositis of the back and lower back
48. Wounds of the udder and teats.
49. Abscess and phlegmon of the udder
50. Dermatitis and furunculosis of the udder
51. Frostbite of the udder and nipples
52. Hematomas and bruises of the udder
53. Breast neoplasms

PC-8$_{ID-3}$Be able to stop bleeding using mechanical, physical, chemical and biological methods

54. Complications due to castration (bleeding, prolapse of the omentum, intestines, funiculitis).
55. Diseases of the genitourinary organs in males (posthitis and balanoposthitis, epididymitis, prostatitis).
56. Genitourinary diseases organs in males (phimosis, paraphimosis, orchitis and periorchitis).
57. Venereal sarcoma
58. Paresis and paralysis of the penis

PC-8$_{ID-4}$Be able to connect tissue using bloodless and bloody methodsmethods, drainage of cavities, application of a bandage using dressings and frame materials

59. Diseases of the urethral canal (strictures, fistulas, bladder stones).
60. Rectal prolapse (etiology, treatment).
61. Diagnosis of limb diseases
62. Types and degrees of lameness.
63. Brachial plexus palsy.
64. Inflammation of the mucous membrane of the biceps brachii muscle and the infraspinatus brachii muscle. 65. Tenosynovitis in the area of the wrist joint.
66. Radial nerve palsy.

PC-8$_{ID-5}$Know the rules for using special equipment in the operating room,surgical instruments and dressings

67. Arthritis of the elbow joint.
68. Cracks and fractures of the radius and ulna.
69. Precarpal bursitis.
70. Tendinitis in the metacarpus and metatarsus.
71. Cracks and fractures of the metacarpal and metatarsal bones.

72. Diseases of the wrist joint (arthritis, arthrosis, periarthritis).
73. Sprains, tears, wounds, contractures of the finger flexor tendons.
74. Fractures of the pelvic bones.

PC-8$_{ID-6}$Know the techniqueper forming surgical operations in veterinary medicine

75. Sprain and dislocation of the hip joint.
76. Palsy of the tibial, peroneal and sciatic nerves.
77. Femoral nerve palsy.
78. Complications of thigh wounds due to anaerobic infection.
79. Achilles tendon rupture.
80. Dislocation and fracture of the kneecap.
81. Diseases in the knee joint (wounds, bruises, bursitis, arthritis).
82. Spastic paresis in cattle.
83. Deforming osteoarthritis of the tarsal joint.

PC-8$_{ID-7}$Know the types and techniques of suturing and dressings used inveterinary surgery

84. Rupture of the third peroneal and tibialis anterior muscles in breeding bulls.
85. Purulent arthritis of the fetlock joint.
86. Desmoiditis of the fetlock joint.
87. Stretching, rupture, inflammation of the third interdigital muscle.
88. Chronic ossifying sesamoiditis of the fetlock region.
89. Ossifying periostitis of the fetlock and coronoid bones.
90. Bursitis of the subtendinous bursa of the common extensor finger.

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

Criteria for assessing students' knowledge when checking test papers:

- **Mark "excellent"**- the problem is identified and its relevance is justified; an analysis of various points of view on the problem under consideration was made and one's own position was logically stated; conclusions are formulated, the topic is fully disclosed, the scope is maintained; requirements for external design have been met, basic requirements for the abstract have been met
- **Mark "good"**- there were shortcomings. In particular, there are inaccuracies in the presentation of the material; there is no logical consistency in judgments; the volume of the abstract is not maintained; there are omissions in the design, there are significant deviations from the requirements for abstracting.
- **Mark "satisfactory"**- the topic is only partially covered; there were factual errors in the content of the abstract; there are no conclusions, the topic of the abstract is not disclosed
- **Mark "unsatisfactory"**- there is a significant misunderstanding of the problem or the abstract is not presented at allCriteria for assessing students' knowledge during the colloquium:

- **Mark "excellent"**- the student clearly expresses his point of view on the issues under consideration, giving relevant examples.
- **Mark "good"**- the student makes some errors in the answer
- **Mark "satisfactory"**- the student discovers gaps in knowledge of the basic educational and regulatory material.
- **Mark "unsatisfactory"**- the student discovers significant gaps in knowledge of the basic principles of the discipline, and the inability, with the help of the teacher, to obtain the correct solution to a specific practical problem.

Criteria for assessing students' knowledge 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 assessments "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, abilities, skills with the indicators given in the tables, significant mistakes are made, a partial lack of knowledge, abilities, and skills 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 situation

- **Knowledge criteria for the exam:**

- **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 44 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, abilities, skills with the indicators given in the tables, significant mistakes are made, a partial lack of knowledge, abilities, and skills 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 mistakes are made, a lack of knowledge, abilities, and skills in a larger number of indicators is manifested; the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations.

Criteria for assessing students' knowledge when checking coursework:

- **Mark "excellent"**- the problem is identified and its relevance is justified; an analysis of various points of view on the problem under consideration was made and one's own position was logically stated; conclusions are formulated, the topic is fully disclosed, the scope is maintained; requirements for external design have been met, basic requirements for course work have been met
- **Mark "good"**- there were shortcomings. In particular, there are inaccuracies in the presentation of the material; there is no logical consistency in judgments; the amount of course work is not met; there are omissions in the design, there are significant deviations from the requirements for course work.
- **Mark "satisfactory"**- the topic is only partially covered; there were factual errors in the content of the course work; there are no full conclusions, the topic of the course work is not disclosed
- **Mark "unsatisfactory"**- there is a significant misunderstanding of the problem in the course work, the topic is not fully disclosed, the volume is not maintained; External design requirements are not met.

6. ACCESSIBILITY AN 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 the form of an electronic document.
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.