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**Federal State Autonomous Educational Institution of Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA  
NAMED AFTER PATRICE LUMUMBA**

**Agrarian and Technological Institution**

education al division (faculty/institute/academy) as higher education programme developer

**INTERNSHIP SYLLABUS**

Academic research practice with the preparation of a scientific qualification project

internship title

Pre-diploma practice

internship type

**Recommended by the Didactic Council for the Education Field of:**

36.05.01. Veterinary

field of studies / speciality code and title

**The student's internship is implemented within the professional education programme of higher education :**

36.05.01. Veterinary

higher education programme profile/specialisation title

## 1. INTERNSHIP GOAL(s)

The goal of the Internship “**Academic research practice with the preparation of a scientific qualification project**” is to ensure the integration of education and scientific and technical activities, increase the efficiency of the use of scientific and technological achievements, reform the scientific sphere and stimulate innovation, as well as collect materials for the preparation of final qualification work specialist (FQW).

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

The internship implementation is aimed at developing students' competencies (parts of competencies):

*Table 2.1. List of competencies that students acquire during the internship*

<b>Competence code</b>	<b>Competence descriptor</b>	<b>Competence formation indicators (within this course)</b>
GPC-1	The ability to determine the biological status and normative clinical indicators of organs and systems of the animal body.	GPC-1.1 Knows the structure and functions of the main systems of the animal body, considering species characteristics
		GPC-1.2 Capable of predicting the expected violations of the biological status in case of suspected development of diseases
		GPC-1.3 Is able to determine the main indicators of the activity of individual body systems and draw conclusions about the presence of deviations from the normative values
		GPC-1.4 Skilled in taking samples of biological fluids and tissues for research, performing laboratory tests, interpreting research results.
GPC-2	The ability to interpret and evaluate in professional activities the impact on the physiological state of the animal organism of natural, socio-economic, genetic and economic factors.	GPC-2.1 Has knowledge of the impact of natural, socio-economic, genetic and economic factors on the animal body
		GPC-2.2 Able to establish the presence and reliability of causal relationships between the impact of individual etiological factors on the animal's body and the development of diseases
		GPC-2.3 Owns methods of preventive and therapeutic correction of the impact of adverse environmental factors that can cause a deterioration in animal health
GPC-3	The ability to carry out and improve professional activities in	GPC-3.1 Knows modern legal norms, both state and international, regulating activities

	accordance with regulatory legal acts in the field of agro-industrial complex	in the field of veterinary medicine, veterinary and sanitary examination and agro-industrial complex
		GPC-3.2 Skilled in update legal information, including in the field of agro-industrial complex
		GPC-3.3 Carries out activities in accordance with the regulatory legal acts in the field of agro-industrial complex, as well as in the field of veterinary medicine and veterinary and sanitary examination.
GPC-4	The ability to use in professional activities methods of solving problems using modern equipment in the development of new technologies and use modern professional methodology to conduct experimental studies and interpret their results.	GPC-4.1 Owns the conceptual and methodological apparatus of the basic natural sciences at a level sufficient for full-fledged professional activity at the modern level
		GPC-4.2 Owns methods for solving problems using modern equipment
		GPC-4.3 Ready to use modern methodology in the development and conduct of experimental studies
		GPC-4.4 Uses modern professional methodology when interpreting research results
GPC-5	The ability to draw up special documentation, analyze the results of professional activities and submit reporting documents using specialized databases.	GPC-5.1 Has the skills to search for the necessary forms of documentation on official websites and specialized databases
		GPC-5.2 Proficient in professional terminology and skills in filling out analytical and reporting documents of a professional nature
		GPC-5.3 Able to use specialized software for analyzing the results of professional activities and compiling reporting documentation
GPC-6	The ability to analyze, identify and carry out risk assessment of the risk of occurrence and spread of diseases.	GPC-6.1 Has knowledge in the field of etiology and pathogenesis of animal diseases of different species
		GPC-6.2 Has the skills to diagnose non-contagious, infectious and parasitic diseases, identify pathogens of infectious and parasitic diseases in animals
		GPC-6.3 Knows the patterns of occurrence and spread of diseases in animal populations, factors predisposing to diseases and causes of possible complications
GPC-7	The ability to understand the principles of operation of modern information technologies and use them to solve problems of professional	GPC-7.1 Understands the principles of operation of modern computer equipment and telecommunications and knows how to use them to solve professional problems
		GPC-7.2 Uses modern special software and

	activity.	<p>specialized databases to solve professional problems and perform job duties</p> <p>GPC-7.3 Has the skills to work on modern medical diagnostic and treatment equipment with software</p> <p>GPC-7.4 Uses specialized databases to solve professional problems in the field of diagnostics and treatment of animals of various species</p> <p>GPC-7.5 Uses geographic information systems and software systems in the collection and analysis of information related to the assessment of the spread of infectious diseases, epizootic situations, planning and evaluating the effectiveness of anti-epizootic measures</p>
PC-1	The ability to collect an anamnesis of the life and illness of animals to identify the causes of diseases and their nature	<p>PC-1.1 Collects anamnesis of the animal's life, information about routine vaccinations, deworming and other preventive treatments.</p> <p>PC-1.2 Collects information about previous diseases, surgical interventions, current chronic diseases and ongoing therapy for these diseases.</p> <p>PC-1.3 Collects information about the change in the state of the animal during the course of the disease, the diagnostic and therapeutic measures taken, the medicines used and the methods of physiotherapy.</p>
PC-2	The ability to conduct a general clinical study of animals in order to establish a preliminary diagnosis and determine a further research program, as well as in accordance with the plan of anti-epizootic measures, the plan for the prevention of non-communicable animal diseases	<p>PC-2.1 Complies with the technique and procedure for conducting a clinical examination, taking into account the type of animal and its condition.</p> <p>PC-2.2 Highlights signs (symptoms) of deviations from normal function, recognizes standard combinations of signs (syndromes).</p> <p>PC-2.3 Records the results of the examination in the patient's record / other medical documents</p> <p>PC-2.4 Able to assess the primary degree of manifestation of clinical symptoms and their change during the patient's curation</p>
PC-3	The ability to plan measures for the differential diagnosis of diseases in a patient.	<p>PC-3.1 Systematizes information about the symptoms / syndromes of the disease in a patient, forms a set of preliminary diagnoses for their further confirmation or refutation.</p> <p>PC-3.2 Uses a ready-made or compiles a unique algorithm for differential diagnosis, taking into account the capabilities of a medical institution.</p>

		PC-3.3 Uses the information obtained as a result of diagnostic measures to make the final diagnosis (diagnoses) and correct the diagnoses, if necessary.
PC-4	The ability to carry out the necessary laboratory diagnostics as part of preventive or diagnostic measures.	PC-4.1 Knows modern methods of laboratory diagnostics, their purpose, features of preanalytics and interpretation of results.
		PC-4.2 Selects the necessary type of laboratory diagnostics to solve the task, taking into account the knowledge of basic biological disciplines.
		PC-4.3 Able to conduct laboratory tests using modern diagnostic equipment.
		PC-4.4 Interprets the diagnostic results and uses them to solve the task.
PC-5	The ability and willingness to plan and conduct the necessary types of instrumental diagnostics of the patient's condition	PC-5.1 Has knowledge of modern methods of instrumental diagnostics, features of their use, indications, possible complications and contraindications to their use.
		PC-5.2 Selects the necessary and sufficient set of instrumental diagnostic methods to solve the problem.
		PC-5.3 Able to carry out instrumental diagnostics of diseases in animals.
		PC-5.4 Interprets the diagnostic results and uses them to solve the task.
PC-6	The ability, based on data from clinical, laboratory and instrumental diagnostics, as well as additional diagnostic methods, to make a diagnosis and predict the course and spread of the disease.	PC-6.1 Has knowledge about the features of the manifestation of infectious, parasitic, internal non-contagious, surgical, gynecological and other diseases of animals of various species.
		PC-6.2 Owns methods of making a complex diagnosis, taking into account the results of anamnesis, clinical, laboratory and instrumental studies.
		PC-6.3 Owns methods for predicting the course and outcome of treatment of the underlying disease based on a complex of concomitant diagnoses and factors complicating the patient's condition.
		PC-6.4 Owns methods for assessing the risks of the spread of a detected disease.
PC-7	The ability to choose or develop a treatment plan for the patient based on the diagnosis	PC-7.1 Able to select drugs necessary for the treatment of animals, guided by the principles of evidence-based medicine, taking into account the cumulative pharmacological effect of all prescribed drugs on the body.
		PC-7.2 Able to choose the best way to administer the drug, calculate the dose and

		frequency of administration, the duration of the course of each drug
		PC-7.3 Able to choose non-drug, including physiotherapeutic, methods of influencing the body of a sick animal that contribute to its recovery and apply them to treat a patient.
		PC-7.4 Able to draw up a treatment plan for the patient, select criteria for monitoring its effectiveness and options for changing the treatment plan in the absence of the effectiveness of the selected treatment methods
PC-8	Coordinates the treatment plan with the owner of the animal and other participants in the treatment process, if necessary, corrects it during the treatment process and coordinates the changes with the owner of the animal.	PC-8.1 Able to explain the selected treatment plan to the owner of the animal, obtain his consent and readiness to invest his resources in the treatment of the pet.
		PC-8.2 Ready to communicate with the owner of the patient about changes in his condition that occurred during treatment, about compliance with the prescribed therapy and the correspondence between the forecasts and the actual results of the patient's treatment.
		PC-8.3 Ready to explain to the owner and medical staff the fact of correcting the prescribed treatment in case of changes in the patient's condition.
PC-9	The ability to use methods of operative surgery in the course of prevention, diagnosis and treatment of animal diseases.	PC-9.1 Selects the necessary method of surgical intervention, if necessary - including methods of anesthesia.
		PC-9.2 Plans preoperative preparation, course of surgical intervention, management of the early postoperative period, prevention of complications.
		PC-9.3 Able to independently perform basic preventive, diagnostic and therapeutic surgical interventions (including punctures, soft tissue necrectomy, tail amputation, castration of males and females, dehornization, diagnostic laparotomy, etc.)
		PC-9.4 Controls the result of surgery.
PC-10	The ability to analyze and adjust the feeding of animals to improve the effectiveness of the treatment process, prescribe therapeutic diets.	PC-10.1 Able to analyze the patient's diet in order to identify factors predisposing to the development of diseases.
		PC-10.2 Able to justify the appointment of special feeding to an animal for therapeutic purposes in various diseases
		PC-10.3 Able to recommend the approximate composition of therapeutic diets, the desired ratio of nutrients, the presence of special additives and

		<p>components that enhance the therapeutic effect of the diet</p> <p>PC-10.4 Able to use special programs and databases for the selection of industrial therapeutic diets and dietary supplements, as well as for the preparation of individual therapeutic diets for animals of various species.</p>
PC-11	The ability to develop an annual plan for anti-epizootic measures, a plan for the prevention of non-communicable animal diseases, a plan for veterinary and sanitary measures, incl. a plan for preventive immunizations (vaccinations) and therapeutic and prophylactic treatments.	<p>PC-11.1 Able to conduct an epizootological survey of an organization, territory</p> <p>PC-11.2 Able to develop an annual plan for anti-epizootic and anti-parasitic measures, a plan for the prevention of non-communicable animal diseases, a plan for veterinary and sanitary measures</p> <p>PC-11.3 Able to draw up individual and group plans for preventive immunizations (vaccinations) taking into account the epizootic situation in the territory where the animals are staying, the plan of anti-epizootic measures, as well as state and regional veterinary and sanitary rules and requirements</p> <p>PC-11.4 Able to organize therapeutic and prophylactic treatment of animals in accordance with the plan of anti-epizootic measures, and also, if necessary, taking into account the real epizootic situation in the places where animals are located, incl. in the conditions of agricultural production</p> <p>PC-11.5 Able to analyze the completeness and effectiveness of measures for the prevention of animal diseases in order to improve them</p>
PC-12	The ability to organize and conduct medical examinations in animals, both general and specialized.	<p>PC-12.1 Able to draw up a plan for the medical examination of animals, general or specialized, taking into account their types and purpose</p> <p>PC-12.2 Able to organize and conduct medical examinations according to the plan</p> <p>PC-12.3 Able, based on the results of medical examination, to give recommendations on the implementation of preventive and therapeutic and therapeutic measures aimed at improving the health of a group of animals</p>
PC-13	The ability to perform a post-mortem diagnostic study of animals in order to establish pathological processes, diseases, causes of death.	<p>PC-13.1 Able to conduct a general examination of animal corpses before autopsy</p> <p>PC-13.2 Capable of performing an autopsy of animal corpses using special tools and</p>

		observing safety requirements
		PC-13.3 Able to establish the cause of death and pathoanatomical diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases
		PC-13.4 Able to document the results of the post-mortem diagnostic examination of the animal in the autopsy protocol
PC-14	Willingness to promote veterinary knowledge, including in the field of animal disease prevention.	PC-14.1 Is able to analyze problems leading to a violation of the health and welfare of animals, on the basis of this, set goals in the field of promotion of veterinary knowledge, plan a strategy and tactics for upcoming events
		PC-14.2 Able to use computer and telecommunication facilities for the preparation and demonstration of materials used in the process of promotion of veterinary knowledge
		PC-14.3 Able to conduct conversations, lectures, seminars for employees of the organization in order to explain the principles of work on the prevention of animal diseases

### 3. INTERNSHIP IN HIGHER EDUCATION PROGRAMME STRUCTURE

The internship refers to the core component of (B2) block of the higher educational programme curriculum.

The core component includes all introductory field internships, the variable component includes all advanced field internships, except for research and pre-graduate types of the internship. The elective module includes all research and pre-graduation types of the internship (if any).

Within the higher education programme students also master other disciplines (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the internship.

*Table 3.1. The list of the higher education programme components that contribute to the achievement of the expected learning outcomes as the internship results.*

Competence code	Competence descriptor	Previous disciplines/modules, practices	Subsequent courses/modules, internships*
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GPC-1	The ability to determine the biological status and normative clinical indicators of organs and systems of the animal body.	Animal anatomy Animal physiology pathological physiology Clinical diagnostics Clinical laboratory diagnostics Laboratory diagnostics of infectious and parasitic diseases Operative surgery with topographic anatomy	
GPC-2	The ability to interpret and evaluate in professional activities the impact on the physiological state of the animal organism of natural, socio-economic, genetic and economic factors.	Biology with the basics of ecology General and veterinary ecology Veterinary genetics Animal health and welfare Course work Animal health and welfare Breeding with the basics of private zootechnics Feeding animals with the basics of feed production animal health Space technologies in the service of the agro-industrial complex	
GPC-3	Able to carry out and improve professional activities in accordance with regulatory legal acts in the field of agro-industrial complex	Law science Organization of veterinary business	
GPC-4	The ability to use in professional activities methods of solving problems using modern equipment in the development of new technologies and use modern professional methodology to conduct experimental studies and interpret their results.	Mathematics Inorganic and Analytical Chemistry Organic chemistry Physical and colloidal chemistry biological chemistry biological physics Immunology Veterinary and manufacturing laboratories with design basics	

GPC-5	The ability to draw up special documentation, analyze the results of professional activities and submit reporting documents using specialized databases.	Organization of veterinary business Biometrics in veterinary medicine Latin language	
GPC-6	The ability to analyze, identify and carry out risk assessment of the risk of occurrence and spread of diseases.	Veterinary genetics Breeding with the basics of private zootechnics Animal health and welfare pathological physiology Epizootology and infectious diseases animal health Veterinary and sanitary examination Technology of processing livestock products	
GPC-7	Able to understand the principles of operation of modern information technologies and use them to solve problems of professional activity.	Computer science Instrumental diagnostics Biometrics in veterinary medicine Organization of state veterinary supervision	
PC-1	The ability to collect an anamnesis of the life and illness of animals to identify the causes of diseases and their nature	Clinical diagnostics Equine diseases Diseases of productive animals Diseases of small animals Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals	

PC-2	Ability to conduct a general clinical study of animals in order to establish a preliminary diagnosis and determine a further research program, as well as in accordance with the plan of anti-epizootic measures, the plan for the prevention of non-communicable animal diseases	Clinical diagnostics Equine diseases Diseases of productive animals Diseases of small animals Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals	
PC-3	The ability to plan measures for the differential diagnosis of diseases in a patient.	Obstetrics, gynecology and andrology Internal non-communicable diseases general surgery Private Veterinary Surgery Parasitology and invasive diseases Anesthesiology, resuscitation and intensive care Dermatology Cardiology Endocrinology Nephrology Reconstructive surgery Veterinary ophthalmology Animal Dentistry	
PC-4	The ability to carry out the necessary laboratory diagnostics as part of preventive or diagnostic measures.	Biology with the basics of ecology Cytology, histology and embryology Clinical laboratory diagnostics Laboratory diagnostics of infectious and parasitic diseases	

PC-5	Ability and willingness to plan and conduct the necessary types of instrumental diagnostics of the patient's condition	Animal anatomy Instrumental diagnostic methods Anesthesiology, resuscitation and intensive care Dermatology Cardiology Endocrinology Nephrology Reconstructive surgery Veterinary ophthalmology Animal Dentistry	
PC-6	The ability, based on data from clinical, laboratory and instrumental diagnostics, as well as additional diagnostic methods, to make a diagnosis and predict the course and spread of the disease.	Epizootology and infectious diseases Obstetrics, gynecology and andrology Internal non-communicable diseases general surgery Private Veterinary Surgery Parasitology and invasive diseases pathological anatomy	
PC-7	Ability to choose or develop a treatment plan for the patient based on the diagnosis	Pharmacology Toxicology Diseases Dermatology Cardiology Endocrinology Nephrology	
PC-8	Coordinates the treatment plan with the owner of the animal and other participants in the treatment process, if necessary, corrects it during the treatment process and coordinates the changes with the owner of the animal.	Veterinary deontology	
PC-9	Ability to use methods of operative surgery in the course of prevention, diagnosis and treatment of animal diseases.	Operative surgery Private surgery Reconstructive surgery Veterinary ophthalmology Veterinary dentistry Veterinary anesthesiology	

PC-10	The ability to analyze and adjust the feeding of animals to improve the effectiveness of the treatment process, prescribe therapeutic diets.	Medicinal and poisonous plants fodder plants Feeding animals with the basics of feed production Equine diseases Diseases of productive animals Diseases of small animals Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals	
PC-11	Ability to develop an annual plan for anti-epizootic measures, a plan for the prevention of non-communicable animal diseases, a plan for veterinary and sanitary measures, incl. a plan for preventive immunizations (vaccinations) and therapeutic and prophylactic treatments.	Epizootology and infectious diseases Veterinary sanitation Organization of veterinary business Organization of state veterinary supervision	
PC-12	The ability to organize and conduct medical examinations in animals, both general and specialized.	Obstetrics, gynecology and andrology Internal non-communicable diseases general surgery Private Veterinary Surgery Parasitology and invasive diseases	
PC-13	The ability to perform a post-mortem diagnostic study of animals in order to establish pathological processes, diseases, causes of death.	pathological anatomy Forensic veterinary and autopsy	

PC-14	Willingness to promote veterinary knowledge, including in the field of animal disease prevention.	Veterinary deontology Coursework Animal Health and Welfare Animal health and welfare Zoopsychology	
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#### 4. INTERNSHIP WORKLOAD

The total workload of the internship is 12 credits (432 academic hours).

#### 5. INTERNSHIP CONTENTS

*Table 5.1 Internship contents \**

Modules	Contents (topics, types of practical activities)	Workload, academic hours
Module 1. Preparation of the SCP	Development of a research plan	20
	Conducting research as part of the preparation of the SCP	250
	Analysis of the results	106
	SCP preparation	38
Writing an internship report		9
Preparing for defence and defending the internship report		9
<b>TOTAL:</b>		<b>432</b>

\* - The contents of internship through modules and types of practical activities shall be FULLY reflected in the student's internship report.

#### 6. INTERNSHIP EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

The infrastructure and technical support necessary for the internship implementation include: laboratories/ specially equipped classrooms/ polygons/ measuring and computing complexes/ vehicles/ industrial equipment and devices/ household premises that comply with current sanitary and fire safety standards.

The SAFETY REQUIREMENTS at the enterprise, workplace (including the department of RUDN University) and during the work with certain production/laboratory equipment incorporate/ include the following:

- Equipped workplaces based on practice;
- Equipment:
  - Means of immobilization and fixation of animals (looms, boosters, collars, yawners, etc.)
  - Clinical diagnostic tools (stethoscopes, percussion hammers and plessimeters, electric flashlights, etc.)

- Equipment for visual diagnostics (ultrasound scanners, x-ray machines, arthroscopes, endoscopes, CT and MRI machines, etc.)
- Laboratory equipment (microscopes, centrifuges, analyzers, etc.)
- Anesthesia equipment
- Surgical equipment, etc.

## **7. INTERNSHIP LOCATION AND TIMELINE**

The internship can be carried out at the structural divisions of RUDN University (at Moscow-based organisations, as well as those located outside Moscow).

The internship at an external organisation (outside RUDN University) is legally arranged on the grounds of an appropriate agreement, which specifies the terms, place and conditions for an internship implementation at the organisation.

The period of the internship, as a rule, corresponds to the period indicated in the training calendar of the higher education programme. However, the period of the internship can be rescheduled upon the agreement with the Department of Educational Policy and the Department for the Organization of Internship and Employment of RUDN students.

## **8. RESOURCES RECOMMENDED FOR INTERNSHIP**

*Main reading:*

1. Obstetrics, gynecology and biotechnology of animal reproduction : textbook / A. P. Studentsov, V. S. Shipilov, V. Ya. Nikitin [and others]; edited by G. P. Dyulger. - 10th ed., revised. - St. Petersburg: Lan, 2020. - 548 p. <https://e.lanbook.com/book/129090>
2. Badluev E.B., Eshizhamsoev B.D., Tsybikzhapov A.D. Obstetrics and gynecology of farm animals. Workbook for laboratory and practical classes and independent work: study guide 2019.-90s. <https://e.lanbook.com/book/113386>
3. Baymishev, Kh. B. Gynecology and andrology: guidelines / Kh. B. Baymishev. - Samara : SamGAU, 2018. - 106 p. <https://e.lanbook.com/book/109422>
4. Workshop on internal animal diseases: textbook / G. G. Shcherbakov, A. V. Yashin, A. P. Kurdeko [and others]; under the general editorship of G. G. Shcherbakov [and others]. - 3rd ed., revised. - St. Petersburg: Lan, 2020. - 544 p. <https://e.lanbook.com/book/139263>
5. Nechaev, A. V. Internal non-communicable diseases: textbook / A. V. Nechaev, Yu. A. Kurlykova. - Samara: SamGAU, 2020 - Part 1: General prevention and therapy - 2020. - 122 p. <https://e.lanbook.com/book/158657>
6. Dyulger, G. P. Fundamentals of veterinary science: a textbook for universities / G. P. Dyulger, G. P. Tabakov. - 3rd ed., revised. - St. Petersburg: Lan, 2020. - 476

p. <https://e.lanbook.com/book/146658>

7. Epizootology with microbiology: textbook / A.S. Aliev, Yu.Yu. Danko, I.D. Yeshchenko [i dr.]; Ed. V.A. Kuzmin. - 2nd ed., erased. - St. Petersburg: Publishing house "Lan", 2017. - 432 p. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=465028&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=465028&idb=0)
8. Sidorchuk, A. A. General epizootology: a textbook for universities / A. A. Sidorchuk, V. A. Kuzmin, S. V. Alekseeva. - 2nd ed., erased. - St. Petersburg: Lan, 2021. - 248 p. <https://e.lanbook.com/book/156931>
9. Epizootology with microbiology: a textbook for universities / A. S. Aliev, Yu. Yu. Danko, I. D. Yeshchenko [and others]; Edited by V. A. Kuzmin, A. V. Svyatkovsky. - 6th, erased. - St. Petersburg: Lan, 2021. - 432 p. <https://e.lanbook.com/book/162384>
10. Skubko, O. R. Morphofunctional features and diseases of animal bones: textbook / O. R. Skubko, O. N. Shushakova. - Omsk: Omsk State Agrarian University, 2020. - 52 p. <https://e.lanbook.com/book/136157>
11. Operative surgery in animals: a textbook for universities / B. S. Semenov, V. N. Videnin, A. Yu. Nechaev [and others]. - St. Petersburg: Lan, 2020. - 704 p. <https://e.lanbook.com/book/162365>
12. Skubko, O. R. Methods of lectures of the academic discipline B1.B.23 "Operative surgery with topographic anatomy": a textbook / O. R. Skubko, G. A. Khonin, O. N. Shushakova. - Omsk: Omsk State Agrarian University, 2019. - 65 p. <https://e.lanbook.com/book/126630>
13. Latypov D.G. Protozoan animal diseases that are dangerous to humans (protozoan zoonoses): a textbook / D.G. Latypov, R.R. Timerbaeva, E.G. Kirillov. - St. Petersburg: Publishing house "Lan", 2017. - 208 p. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=464930&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=464930&idb=0)
14. Latypov D.G. Animal helminthiases dangerous to humans: a textbook / D.G. Latypov. - 3rd ed., revised. - St. Petersburg: Publishing house "Lan", 2017. - 440 p. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=464941&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=464941&idb=0)
15. Latypov, D. G. Parasitology and invasion animal diseases: a textbook for sports / D. G. Latypov, R. R. Timerbaeva, E. G. Kirillov. - 2nd ed., erased. - St. Petersburg: Lan, 2021. - 520 p. <https://e.lanbook.com/book/159517>
16. Yatusevich, A. I. Parasitology and invasive animal diseases: textbook / A. I. Yatusevich, N. F. Karasev, S. I. Stasyukevich. - Minsk: RIPO, 2020. - 266 p. <https://e.lanbook.com/book/154220>
17. Nikitin, I. N. Workshop on the organization of veterinary business: textbook / I. N. Nikitin. - 4th ed., Rev. and additional - St. Petersburg: Lan, 2020. - 324 p. <https://e.lanbook.com/book/131031>



18. Nikitin, I. N. Legal support of veterinary activities: a textbook for sports / I. N. Nikitin. - 2nd ed., revised. - St. Petersburg: Lan, 2021. - 212 p. <https://e.lanbook.com/book/155692>

19. Zabolotnykh M. V., Ivkova I. A., Zhidik I. Yu. Fundamentals of the organization of veterinary and sanitary business: textbook 2020.-91s

20. Nikitin, I. N. Veterinary clinic: textbook for universities / I. N. Nikitin, V. V. Ivanov, E. N. Trofimova. - 2nd, revised. - St. Petersburg: Lan, 2021. - 184 p. <https://e.lanbook.com/book/162385>

*Additional reading:*

1. 1. Obstetrics, gynecology and biotechnology of animal reproduction : textbook / A. P. Studentsov, V. S. Shipilov, V. Ya. Nikitin [and others]; edited by G. P. Dyulger. - 10th ed., revised. - St. Petersburg: Lan, 2020. - 548 p. <https://e.lanbook.com/book/129090>
2. 2. Badluev E.B., Eshizhamsoev B.D., Tsybikzhapov A.D. Obstetrics and gynecology of farm animals. Workbook for laboratory and practical classes and independent work: study guide 2019.-90s. <https://e.lanbook.com/book/113386>
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#### *Internet sources*

1. Electronic libraries (EL) of RUDN University and other institutions, to which university students have access on the basis of concluded agreements:

- RUDN Electronic Library System (RUDN ELS)  
<http://lib.rudn.ru/MegaPro/Web>

- EL "University Library Online" <http://www.biblioclub.ru>
- EL "Yurayt" <http://www.biblio-online.ru>
- EL "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
- EL "Lan" <http://e.lanbook.com/>
- EL "Trinity Bridge"
- .....

#### 2. Databases and search engines:

- electronic foundation of legal and normative-technical documentation  
<http://docs.cntd.ru/>

- Yandex search engine <https://www.yandex.ru/>
- Google search engine <https://www.google.ru/>
- Scopus abstract database <http://www.elsevierscience.ru/products/scopus/>
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*The training toolkit and guidelines for a student to do an internship, keep an internship diary and write an internship report\*:*

1. Safety regulations to do the internship (safety awareness briefing).
2. Machinery and principles of operation of technological production equipment used by students during their internship; process flow charts, regulations, etc. (if necessary).
3. Guidelines for keeping an internship diary and writing an internship report.

\*The training toolkit and guidelines for the internship are placed on the internship page in the university telecommunication training and information system under the set procedure.

## **8. ASSESSMENT TOOLKIT AND GRADING SYSTEM\* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL AS INTERNSHIP RESULTS**

The assessment toolkit and the grading system\* to evaluate the level of competences (competences in part) formation as the internship results are specified in the Appendix to the internship syllabus.

\* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

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