Документ подписан простой электронной подписью

Информация о владельце:

Уникальный программный ключ:

ca953a0120d891083f939673078ef1a989dae18a

# ФИО: Ястребов Олег Александрови State Autonomous Educational Institution of Higher Education должность: Ректор Дата подписания: 21.05.2025 12:31:06 PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA **RUDN** University

Agrarian and Technological Institute

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

The course instruction is implemented within the programme of higher education:

Veterinary

higher education programme profile/specialisation title

### 1. GOALS AND OBJECTIVES OF THE COURSE

The aim of the mastering the course "**Veterinary pharmacology**" is to provide students with the necessary knowledge about the properties, action and use of medicinal substances for therapeutic and prophylactic purposes, as well as for the stimulation and pharmacological regulation of physiological processes in the body of animals.

### 2. REQUIREMENTS FOR LEARNING OUTCOMES

The implementation of the course "**Veterinary pharmacology**" is aimed at creating the following competencies (parts of competencies) for students:

Table 2.1. List of competencies formed by students during the development of the course (results of the development of the discipline)

Competence	Competence descriptor	Indicators of competence
code		accomplishment
		(within the discipline)
PC-7	Ability to select or develop a treatment plan for a patient based on the established diagnosis.	PC-7.1 Able to select the necessary medicinal products for the treatment of animals, guided by the principles of evidence-based medicine, taking into account the cumulative pharmacological effects of all prescribed drugs on the organism.  PC-7.2 Able to select the optimal method of drug administration,
		calculate the dosage, frequency of administration, and duration of each course.

### 3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course " **Veterinary pharmacology** " refers to the mandatory part of block B1 of the Educational Program of Higher Education.

As part of the Educational Program of Higher Education, students also master other disciplines and /or practices that contribute to achieving the planned results of mastering the course "**Veterinary pharmacology**".

Table 3.1. List of Higher Education Program components disciplines that contribute to expected learning outcomes

Competence code	Competence descriptor	Previous courses/modules,	Subsequent courses/modules,
-----------------	-----------------------	---------------------------	-----------------------------

	internships* internships*
Ability to select or develop a treatment plan for a patient based on the established diagnosis.  PC-7	internships*  Toxicology / Токсикология Dermatology / Дерматология Anesthesiology, Resuscitation And Intensive Therapy / Анестезиология, реанимация и интенсивная терапия Веначіогаl Medicine / Поведенческая медицина Variable component / Вариативная компонента Clinical Industrial Practice / Клиническая производственная практика Clinical Internship Industrial Research Practice / Производственно- исследовательская практика Preparation for Passing and Passing the State Exam / Подготовка к сдаче и сдача государственного экзамена Preparing and Passing the State Exam / Подготовка и сдача государственного экзамена Design, Preparation for Defense Procedure and Defense of the

		защита	выпускной
		квалификационной	
		работы	

## 4. COURSE WORKLOAD AND TRAINING ACTIVITIES

Course workload of the course "Veterinary pharmacology" is 8 credits.

Table 4.1. Types of academic activities during the period of the HE program mastering for <u>full-time</u> study

Tunes of anodomic activities	_	HOURS		Seme	esters	
Types of academic activities			5	6	-	-
Contact academic hours		136	68	68	-	-
including						
Lectures		34	17	17	-	-
Lab work		102	51	51	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		116	94	22	-	-
Evaluation and assessment (example)	m/pass/fail	36	18	18	-	-
grading)	_					
	Academic	288	180	108	-	-
Course workload	hour					
Course workload	Credit	8	5	3	-	-
	unit					

### **5. COURSE CONTENTS**

Table 5.1 Content of the course (module) by type of academic work

Modules	Content of the modules (topics)	Types of academic activities	
Module 1. General pharmacology. General	Topic 1.1. General pharmacology.	Lectures, Lab work	
recipe.	Topic 1.2. General recipe.	Lectures, Lab work	
Module 2. Funds acting on the nervous system.	Topic 2.1. Remedies acting on afferent and efferent innervation.	Lectures, Lab work	
	Topic 2.2. Substances acting on the central nervous system.	Lectures, Lab work	
Module 3. Substances that regulate the functions of	Topic 3.1. Substances affecting respiratory and digestive function.	Lectures, Lab work	
individual organs and systems.	Topic 3.2. Substances affecting the excretory function of the kidneys,	Lectures, Lab work	

	cardiovascular system, hemostasis, hematopoiesis.	
Module 4. Substances that primarily affect metabolic	Topic 4.1. Hormones and their analogues.	Lectures, Lab work
processes.	Topic 4.2. Vitamins and enzymes.	Lectures, Lab work
	Topic 4.3. Mineral substances.	Lectures, Lab work
Module 5. Means, correcting the immune	Topic 5.1. Remedies affecting immune processes.	Lectures, Lab work
status and productivity of animals.	Topic 5.2. Means correcting the immune status and productivity of animals.	Lectures, Lab work
Module 6. Antimicrobial, antiparasitic, antitumor	Topic 6.1. Disinfectants and antiseptics.	Lectures, Lab work
agents.	Topic 6.2. Chemotherapeutic agents.	Lectures, Lab work
	Topic 6.3. Rodenticides.	Lectures, Lab work

# 6. COURSE EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Material and technical support of the discipline

Classroom for Academic Activity Type	Equipping the classroom	Specialized educational/laboratory equipment, software and materials for the development of the course (if necessary)
Lecture	An auditorium for conducting lecture- type classes, equipped with a set of specialized furniture; a board (screen) and technical means of multimedia presentations.	-
Laboratory	An auditorium for laboratory work, individual consultations, routine monitoring and interim certification, equipped with a set of specialized furniture and equipment.	-

Self-studies	An auditorium for independent work of	dent work of	
	students (can be used for seminars and	eminars and	
	consultations), equipped with a set of	vith a set of	
	specialized furniture and computers	l computers	
	with access to an electronic information	e information	
	and educational environment.	nt.	

### 7. RESOURCES RECOMMENDED FOR COURSE STUDIES

### Main readings:

- 1. Circulation and quality control of medicines for veterinary use in the Russian Federation: tutorial / A. Vatnikov, MI Shopinskaya, SG Drukovsky, EV Kulikov. Electronic text data. Moscow: PFUR, 2021. 37 c.: http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=494768&idb=0
- 2. V., Kuznetsov S. V., Sakhno NV, Kapustin R. F. Veterinary pharmacology. Dictionary-Reference Book: a textbook for universities 2020.-136s https://e.lanbook.com/book/152613.
- 3. Lavrinenkova A.N. Course of lectures on veterinary pharmacology 2018.-104s https://e.lanbook.com/book/133070

### Additional Readings:

- 1. Sokolov V.D. Pharmacology St. Petersburg: Lan' Publisher, 2013. 576c. https://e.lanbook.com/book/10255
- 2. Samorodova I. M. Veterinary pharmacology and formulation. Workshop: textbook for universities / IM Samorodova, MI Rabinovich. 7th ed. amended and supplemented M.: Publishing house Yurite, 2018. 278 c.
- 3. Nabiev FG, Akhmadeev RN Modern veterinary medicines St. Petersburg: Lan' Publisher, 2011. 816c. https://e.lanbook.com/book/1547
- 4. Pharmacology / Kharkevich DA, 10th ed. revised, revised and additional ed. M.: GEOTAR-MED, 2010. 752 c.
- 5. Donald K. Plumb Pharmacological preparations in veterinary medicine. Moscow: Aquarium-Print, 2016. 1060 c.
- 6. Fundamentals of pharmacology with prescription. Textbook / Astafiev V.A., Edited by Astafiev V.A. Moscow: Knorus, 2015. 595 c.

### 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) <a href="http://lib.rudn.ru/MegaPro/Web">http://lib.rudn.ru/MegaPro/Web</a>
  - EL "University Library Online" http://www.biblioclub.ru
  - EL "Yurayt" <a href="http://www.biblio-online.ru">http://www.biblio-online.ru</a>
  - EL "Student Consultant" www.studentlibrary.ru
  - EL "Lan" <a href="http://e.lanbook.com/">http://e.lanbook.com/</a>

- EL "Trinity Bridge"

**DEVELOPERS:** 

- 2. Databases and search engines:
- electronic foundation of legal and normative-technical documentation <a href="http://docs.cntd.ru/">http://docs.cntd.ru/</a>
  - Yandex search engine <a href="https://www.yandex.ru/">https://www.yandex.ru/</a>
  - Google search engine <a href="https://www.google.ru/">https://www.google.ru/</a>
  - Scopus abstract database <a href="http://www.elsevierscience.ru/products/scopus/">http://www.elsevierscience.ru/products/scopus/</a>

Educational and methodological materials for independent work of students during the development of the discipline/ module\*:

- 1. A course of lectures on the course "Veterinary pharmacology".
- 2. Laboratory workshop on the course "**Veterinary pharmacology**".
- \* 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 COURSE RESULTS

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

# Associate Professor, Department of Veterinary Medicine Должность, БУП НЕАD OF EDUCATIONAL DEPARTMENT: Department of Veterinary Medicine Name Basic Curriculum Name Vatnikov Yu.A. Vatnikov Yu.A. Vatnikov Yu.A.

Signature

Full name

Position, Basic curriculum