

Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Ястребов Олег Александрович
Должность: Ректор
Дата подписания: 27.05.2026 16:12:57
Уникальный программный ключ:
ca953a0120d891083f939673078ef1a989dae18a

**Federal State Autonomous Educational Institution of Higher Education
Peoples' Friendship University of Russia named after Patrice Lumumba
RUDN University**

Agrarian and Technological Institute

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

COURSE SYLLABUS

Animal Anatomy

course title

Recommended by the Didactic Council for the Education Field of:

36.05.01 Veterinary

field of studies / speciality code and title

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

Veterinary

higher education programme profile/specialisation title

1. COURSE GOAL(s)

The goal of the course "**Animal Anatomy**" is to familiarize students with the theoretical background, terminology, and concepts of the discipline, of professional knowledge and skills for the student to use morphological knowledge about a functioning, developing and adapting organism in practice. This is necessary for the veterinarian to correctly apply his knowledge during the appointment and treatment of animals.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "**Animal Anatomy**" is aimed at the development of the following competences /competences in part

Table 2.1. List of competences that students acquire through the course study

Competence code	Competence descriptor	Competence formation indicators (within this course)
GPC-1	Able to determine the biological status and standard clinical indicators of organs and systems of animal bodies.	GPC-1.1 Understands the structure and functions of major systems in animal organisms, taking into account species-specific features.
PC-5	Ability and readiness to plan and conduct necessary types of instrumental diagnostics of the patient's condition.	PC-5.4 Interprets diagnostic results and uses them to solve the assigned task.

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course "**Animal Anatomy**" refers to the core component of (B1) block of the higher educational programme curriculum.

* - Underline whatever applicable.

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

Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results

Competence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
GPC-1	Able to determine the biological status and standard clinical indicators of organs and systems of animal bodies.		Preparation for and taking of the State Final Examination Clinical Industrial Internship Industrial (Professional) Internship Research and Production Internship

Competence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
			Internship Research Internship Study Internship Animal Physiology and Ethology Pathological Physiology Clinical Diagnostics Laboratory Diagnostics with Elements of Artificial Intelligence Technology Veterinary Assistant Skills Operative Surgery with Topographic Anatomy
PC-5	Ability and readiness to plan and conduct necessary types of instrumental diagnostics of the patient's condition.		Preparation for and taking of the State Final Examination Clinical Industrial Internship Industrial (Professional) Internship Research and Production Internship Instrumental Diagnostic Methods with Elements of Artificial Intelligence Technology Dermatology Cardiology Endocrinology Nephrology Reconstructive and Restorative Surgery Veterinary Ophthalmology Animal Dentistry Oncology Neurology Veterinary Assistant Skills

* To be filled in according to the competence matrix of the higher education programme.

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course "**Animal Anatomy**" is 12 credits (252 academic hours).

*Table 4.1. Types of academic activities during the periods of higher education programme mastering (**full-time training**)*

Type of academic activities	Total	Semesters/training modules
-----------------------------	-------	----------------------------

	academic hours	1	2	3	-	
<i>Contact academic hours</i>	<i>153</i>	<i>51</i>	<i>51</i>	<i>51</i>	<i>-</i>	
including:						
Lectures (LC)	51	17	17	17	-	
Lab work (LW)	102	34	34	34	-	
Seminars (workshops/tutorials) (S)	-	-	-	-	-	
<i>Self-studies</i>	<i>225</i>	<i>111</i>	<i>12</i>	<i>102</i>	<i>-</i>	
<i>Evaluation and assessment (exam/passing/failing grade)</i>	<i>54</i>	<i>18</i>	<i>9</i>	<i>27</i>	<i>-</i>	
Course workload	academic hours	252	180	72	180	-
	credits	12	5	2	5	-

5. COURSE CONTENTS

Table 5.1. Course contents and academic activities types

Course module title	Course module contents (topics)	Academic activities types
Module 1. Introduction	Topic 1.1. Course is a system of knowledge about the internal and external structure of the body.	LC, LW
Module 2. Bone system or skeleton (osteology)	Topic 2.1. Characteristics of the skeleton, the principles of its division into departments. The role of the skeleton in the vital activity of the body.	LC, LW
	Topic 2.2. Axial skeleton.	LC, LW
	Topic 2.3. The skeleton of the head. - The facial part of the skull. - The cerebral part of the skull.	LC, LW
	Topic 2.4. Musculoskeletal system. - Thoracic limbs and their girdle. - Pelvic limbs and their girdle.	LC, LW
	Topic 2.5. Bone connection (arthrosyndesmology) - Morphofunctional characteristics of bone junctions, their classification and morphogenesis.	LC, LW
Module 3. Muscular system (myology)	Topic 3.1. Muscle as an organ, morphogenesis of the muscular system.	LC, LW
	Topic 3.2. Classification of muscles. - By origin, form, internal architectonics, function, topographical feature.	LC, LW
	Topic 3.3. Muscles of the axial skeleton. - Filo- and ontogenesis of the muscles of the axial department. Muscles and fascia of the neck, trunk and tail.	LC, LW
	Topic 3.4. Muscles of the shoulder girdle and	LC, LW

Course module title	Course module contents (topics)	Academic activities types
	spinal column. - Dorsal muscles of the shoulder girdle and vertebral column. Ventral muscles of the neck, lower back, tail.	
	Topic 3.5. Chest muscles. - Inhaler muscles, exhalator muscles and diaphragm.	LC, LW
	Topic 3.6. Abdominal wall muscles.	LC, LW
	Topic 3.7. Head muscles. - Philo- and ontogenesis. Facial and masticatory muscles. Muscles of the sublingual apparatus.	LC, LW
	Topic 3.8. Limb muscles. - Philo and ontogenesis.	LC, LW
	Topic 3.9. Muscles of the thoracic limb. The muscles of the shoulder joint, elbow joint, wrist joint, finger joints and short finger muscles.	LC, LW
	Topic 3.10. Pelvic limb muscles. - The muscles of the hip joint, knee joint and the metatarsal joint.	LC, LW
	Topic 3.11. Muscles of the finger joints.	LC, LW
Module 4. General (skin) cover.	Topic 4.1. General morphofunctional characteristics of the skin and its derivatives.	LC, LW
Module 5. Nervous system (neurology).	Topic 5.1. Morphofunctional characteristics, anatomical composition and structural elements, the principle of the nervous system.	LC, LW
	Topic 5.2. The central part of the nervous system. - Structure and development of the central nervous system. The structure of the spinal cord and brain, functional characteristics. Conductor apparatus	LC, LW
	Topic 5.3. Peripheral part of the nervous system. Morphofunctional characteristics of cranial and spinal nerves. General and species-specific signs of structure, branching and location.	LC, LW
	Topic 5.4. The autonomic part of the nervous system. - Anatomical, functional and topographic characteristics. Regularities of the structure, formation and distribution of sympathetic, para- and metasymphathetic nervous structures.	LC, LW
Module 6. Analyzers.	Topic 6.1. Classification, anatomical structure	LC, LW

Course module title	Course module contents (topics)	Academic activities types
	and morphofunctional characteristics of analyzers. The study of the phylogeny and ontogenesis of analyzers. General data on intero-, proprio- and exteroceptors.	
Module 7. The endocrine system.	Topic 7.1. Morphofunctional characteristics and anatomical composition of the endocrine apparatus. Morphogenetic, topographic and functional characteristics of the glands of internal and mixed secretion. Specific and age-related features of the structure and location of the glands.	LC, LW
Module 8. Cardiovascular system.	Topic 8.1. Anatomical composition, morphogenesis and structural and functional characteristics of the cardiovascular system and its relationship with other body systems.	LC, LW
	Topic 8.2. Circulatory system. - Structure, development, species and age characteristics. Specific features, basic patterns of the structure, branching and location of blood vessels. Circulatory circles.	LC, LW
	Topic 8.3. Lymphatic system. - General morphofunctional characteristics and anatomical composition of the system. Its development. General patterns and specific features of the location of the lymphatic system.	LC, LW
	Topic 8.4. organs of hemo- and immunopoiesis. Morphofunctional characteristics, anatomical composition and classification of organs. The structure, location and specific features of hematopoietic organs and organs of the immune system.	LC, LW
Module 9. Splanchnology.	Topic 9.1. Morphofunctional characteristics of internal organs, their classification, features of structure and development. Body cavities, their development, serous integuments and their derivatives. The relationship of internal organs with other body systems and the external environment.	LC, LW
	Topic 9.2. Digestive system. - Anatomical composition of the apparatus, division into departments, classification of glands. Species and age features. Anatomical and topographic features of the digestive apparatus in the X-ray image.	LC, LW

Course module title	Course module contents (topics)	Academic activities types
	<p>Topic 9.2.1. Head department (oral cavity and pharynx).</p> <ul style="list-style-type: none"> - Specific and functional features of the structure of the organs of the vestibule of the mouth. Glandular apparatus of the head intestine. 	LC, LW
	<p>Topic 9.2.2. Anterior section (esophageal-gastric)</p> <ul style="list-style-type: none"> - Structure, topography, species and age features. Morphogenesis of the stomach and omentum. Classification of stomachs. Structure and functions of the mesh gutter in ruminants. 	LC, LW
	<p>Topic 9.2.3. Middle section (small intestine)</p> <ul style="list-style-type: none"> - Structure, topography, species and age features. Morphogenesis of the stomach and omentum. Classification of stomachs. Structure and functions of the mesh gutter in ruminants. 	LC, LW
	<p>Topic 9.2.4. Posterior section (large intestine).</p> <ul style="list-style-type: none"> - Anatomical and topographic characteristics of the structure, morphogenesis, species and age features, functional purpose. 	LC, LW
	<p>Topic 9.3. Breathing apparatus.</p> <ul style="list-style-type: none"> - General structure, morphogenesis of respiratory organs in connection with other body systems and the external environment. Anatomical features of the respiratory organs in the X-ray image. 	LC, LW
	<p>Topic 9.4. The urinary apparatus.</p> <ul style="list-style-type: none"> - Morphogenetic relationship and functional difference of organs of urination and reproduction. Morphofunctional characteristics of the device. X-ray-anatomy of the genitourinary apparatus. 	LC, LW
	<p>Topic 9.4.1. Urinary organs.</p> <ul style="list-style-type: none"> - Anatomical composition of the urinary system, the structure of the kidneys and urinary tract, their connection with other body systems. Species, age and topographical features of urinary organs. 	LC, LW
	<p>Topic 9.4.2. Organs of reproduction.</p> <ul style="list-style-type: none"> - Anatomical composition and structure of reproductive organs. Species, age and topographical features of the genitals and the causes of their appearance. 	LC, LW
	<p>Topic 10.1. Analysis of the structure of organs and systems of various types of domestic birds</p>	LC, LW

Course module title	Course module contents (topics)	Academic activities types
	related to flight, nutrition and industrial maintenance.	

* - to be filled in only for **full**-time training: *LC* - lectures; *LW* - lab work; *S* - seminars.

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Classroom equipment and technology support requirements

Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
Lecture	A lecture hall for lecture-type classes, equipped with a set of specialised furniture; board (screen) and technical means of multimedia presentations.	- <i>Anatomical preparations.</i> - <i>Wet anatomical preparations.</i> - <i>Anatomical models.</i>
Lab work	A classroom for laboratory work, individual consultations, current and mid-term assessment; equipped with a set of specialised furniture and machinery.	- <i>Anatomical preparations.</i> - <i>Wet anatomical preparations.</i> - <i>Anatomical models.</i>
Self-studies	A classroom for independent work of students (can be used for seminars and consultations), equipped with a set of specialised furniture and computers with access to the electronic information and educational environment.	

* The premises for students' self-studies are subject to **MANDATORY** mention

7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main readings:

1. Akaevsky A.I., Yudichev Yu.Yu., Seleznev S.B. ANATOMY OF DOMESTIC ANIMALS - 6th ed. - Moscow: Aquarium-Print, 2020. - 638 p.
2. Maksimov V.I., Slesarenko N.A., Seleznev S.B., Vetoshkina G.A. ANATOMY AND PHYSIOLOGY OF DOMESTIC ANIMALS. - 2nd ed. - Moscow: Gryph UMO SPO, 2020. - 600 p.

Additional Readings:

1. Zelenevsky N.V. International veterinary anatomical nomenclature in Latin and Russian. Nomnia Anatomica Veterinaria: textbook – St. Petersburg: Lan, 2013 – 400p. – http://e.lanbook.com/books/element.php?pl1_id=5706
2. Popesco P. Atlas of the anatomy of domestic animals. - In 3 t. M.: design of YOYO Media, digitization , 2013. - Vol.1. -210 p. t.2. -183. T.3. – 196.
3. Slesarenko N.A., Seleznev S.B., Vetoshkina G.A. Introduction to animal pathology: integrating systems. Practical guide.-Moscow:LLC "ArtServisLtd", 2019.-268 p.
4. Seleznev S.B., Vetoshkina G.A., Krotova E.A. Anatomy of domestic animals: osteoarthrosyndesmology.-Moscow:OOO ArtServisLtd, 2017.-66 p.

5. Seleznev S.B., Vetoshkina G.A., Krotova E.A. Myology of domestic animals.- Moscow:PFUR, 2020.-28 p.

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
- 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/](https://www.yandex.ru/)
- Google search engine <https://www.google.ru/>
- Scopus abstract database <http://www.elsevierscience.ru/products/scopus/>

*Training toolkit for self- studies to master the course *:*

1. The set of lectures on the course "**Animal Anatomy**".
2. The laboratory workshop (if any).on the course "**Animal Anatomy**"

* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

DEVELOPERS:

Professor of the Department of Veterinary Medicine

Position, Basic curriculum

Signature

Seleznev S.B.

Full name.

HEAD OF EDUCATIONAL DEPARTMENT:

Department of Veterinary Medicine

Name Basic Curriculum

Signature

Vatnikov Yu.A.

Full name.

HEAD

OF HIGHER EDUCATION PROGRAMME:

Director of the Department of Veterinary Medicine

Position, Basic curriculum

Signature

Vatnikov Yu.A.

Full name