Federal State Autonomous Educational Institution of Higher Education

PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
RUDN University

Agrarian and Technological Institute

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

COURSE SYLLABUS

Diseases of productive animals

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:

36.05.01 Veterinary

higher education programme profile/specialisation title

1. GOALS AND OBJECTIVES OF THE COURSE

The aim of mastering the course "**Diseases of productive animals**" is the development by students of theoretical, methodological and practical knowledge that forms the modern chemical basis for the development of core academic disciplines and the implementation of the main professional tasks: prevention and treatment of animal diseases, increasing the production of high-quality products and raw materials of animal origin, environmental protection from pollution, etc.

2. REQUIREMENTS FOR LEARNING OUTCOMES

The implementation of the course "**Diseases of productive animals**" 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 code	**Competence descriptor**	**Indicators of competence accomplishment** (within the course)
PC-1	Ability to gather a history of the animal's life and health for further diagnosis and planning of treatment and preventive measures.	PC-1.1 Gathers the animal's life history, information on routine vaccinations, deworming and other preventive treatments.
		PC-1.2 Collects information on past illnesses, surgical interventions, current chronic illnesses, and ongoing therapy for these illnesses.
		PC-1.3 Collects information on changes in the animal's condition during the course of the disease, diagnostic and therapeutic measures taken, medications used and methods of physical therapy.
PC-2	Ability to perform a complete initial clinical examination of the animal to make a preliminary clinical diagnosis(s) and repeat examinations to monitor the patient's condition.	PC-2.1 Observes the technique and procedure of clinical examination, taking into account the type of animal and its condition.
		PC-2.2 Identifies signs (symptoms) of deviations from normal function, recognizes standard combinations of signs (syndromes).
		PC-2.3 Records the results of the examination in the patient's chart/other medical documents
PC-10	Ability to analyze and adjust animal feeding to improve the	PC-10.1 Able to analyze a patient's diet to identify factors predisposing to the

	effectiveness of the therapeutic process, prescribe therapeutic diets.	development of disease.
		PC-10.2 Able to justify the prescription of special food to an animal for therapeutic purposes for various diseases
		PC-10.3 Can recommend approximate composition of therapeutic diets, desirable ratio of nutrients, availability of special additives and components that enhance the therapeutic effect of the diet
		PC-10.4 Able to use special programs and databases to select industrial therapeutic diets and dietary supplements, as well as to compose individual therapeutic diets for animals of different species.

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course "**Diseases of productive animals**" belongs to the part formed by the participants of educational relations of the 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 "**Diseases of productive animals**".

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

Competence code	**Competence descriptor**	**Previous courses/modules, internships***	**Subsequent courses/modules, internships***
PC-1	Ability to gather a history of the animal's life and health for further diagnosis and planning of treatment and preventive measures.	Clinical diagnostics Horse diseases	Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals Study practice Clinical internship Industrial practice Academic research practice with the

			preparation of a scientific qualification project Preparation for and passing the state exam
PC-2	Ability to perform a complete initial clinical examination of the animal to make a preliminary clinical diagnosis(s) and repeat examinations to monitor the patient's condition.	Clinical diagnostics Horse diseases	Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals Study practice Clinical internship Industrial practice Academic research practice with the preparation of a scientific qualification project Preparation for and passing the state exam
PC-10	Ability to analyze and adjust animal feeding to improve the effectiveness of the therapeutic process, prescribe therapeutic diets.	Feeding animals with the basics of forage production Medicinal and poisonous plants Fodder plants Horse diseases	Diseases of small pets Diseases of bees and entomophages Fish pathology and aquaculture Diseases of exotic animals Clinical internship Industrial practice Academic research practice with the preparation of a scientific qualification project Preparation for and passing the state exam

4. COURSE WORKLOAD AND TRAINING ACTIVITIES

Course workload of the course "**Diseases of productive animals**" is 3 credits.

*Table 4.1. Types of academic activities during the period of the HE program mastering for **full-time** study*

Types of academic activities		HOURS	Semesters			
			9	-	-	-
Contact academic hours		34	34	-	-	-
including						
Lectures		17	17	-	-	-
Lab work		17	17	-	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		62	62	-	-	-
Evaluation and assessment (exam/pass/fail grading)		12	12	-	-	-
Course workload	Academic hour	**108**	**108**	**-**	**-**	-
	Credit unit	**3**	**3**	**-**	**-**	-

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. Differential diagnosis of diseases of productive animals.	Topic 1.1. Methods of working with animal owners.	Lectures, Lab work.
	Topic 1.2. Algorithm of differential diagnosis in various diseases.	Lectures, Lab work.
	Topic 1.3. Urgent conditions and planned diagnostics.	Lectures, Lab work.
	Topic 1.4. Medical examination.	Lectures, Lab work.
Module 2. Diseases of the gastrointestinal tract.	Topic 2.1. Methods of diagnosis of chronic and urgent gastrointestinal pathologies.	Lectures, Lab work.
	Topic 2.2. Palpation, percussion and auscultation of abdominal organs.	Lectures, Lab work.
	Topic 2.3. Radiography and ultrasound examination of the abdominal cavity.	Lectures, Lab work.
	Topic 2.4. Operative and conservative treatment of patients.	Lectures, Lab work.
	Topic 2.5. Rehabilitation.	Lectures, Lab work.
Module 3. Investigation of pathologies and development of a	Topic 3.1 Methods of investigation of the patient in the pathology of the digestive glands. The coprogram.	Lectures, Lab work.

therapeutic diet.	Topic 3.2. Development of therapeutic diets.	Lectures, Lab work.
Module 4. Diseases of the urinary tract.	Topic 4.1. Algorithm of differential diagnosis of diseases of the urinary system.	Lectures, Lab work.
	Topic 4.2. Nephritis, nephrosis, nephrosclerosis, pyelonephritis.	Lectures, Lab work.
	Topic 4.3. Diseases of the urinary tract: pyelitis, urocystitis, urolithiasis.	Lectures, Lab work.
	Topic 4.4. Hematuria. Urine examination, ultrasound and X-ray diagnostics. Cystocentesis.	Lectures, Lab work.
Module 5. Pathology of the reproductive system	Topic 5.1. Differential diagnosis of diseases of the genitals.	Lectures, Lab work.
	Topic 5.2. Ultrasound and X-ray diagnostics of diseases of the genital organs.	Lectures, Lab work.
	Topic 5.3. Operative and conservative treatment.	Lectures, Lab work.
	Topic 5.4. Endometritis. The pyometer. Vulvovaginitis.	Lectures, Lab work.
	Topic 5.5. Ovarian cysts.	Lectures, Lab work.
	Topic 5.6. Prostatitis. Neoplasms of the prostate.	Lectures, Lab work.
Module 6. Pathology of the respiratory tract.	Topic 6.1. Examination of the respiratory system.	Lectures, Lab work.
	Topic 6.2. Auscultation of the respiratory tract.	Lectures, Lab work.
	Topic 6.3. Chest X-ray.	Lectures, Lab work.
	Topic 6.4. Thoracocentesis.	Lectures, Lab work.
Module 7. Pathology of the cardiovascular system.	Topic 7.1. Diseases of the cardiovascular system.	Lectures, Lab work.
	Topic 7.2. Classification, syndromes.	Lectures, Lab work.
	Topic 7.3. Diseases of the heart muscle.	Lectures, Lab work.
	Topic 7.4. Endocardial diseases.	Lectures, Lab work.
	Topic 7.5. Heart defects.	Lectures, Lab work.
	Topic 7.6. Vascular diseases.	Lectures, Lab work.
Module 8. Infectious	Topic 8.1. Methods of diagnosis and prevention.	Lectures, Lab work.

diseases of productive animals.	Topic 8.2. Working out the method of admission of a patient with suspected infectious pathology.	Lectures, Lab work.
	Topic 8.3. Algorithm of differential diagnostics.	Lectures, Lab work.
	Topic 8.4. Etiotropic therapy.	Lectures, Lab work.
	Topic 8.5. Symptomatic treatment.	Lectures, Lab work.
Module 9. Endocrinological pathology. Diagnostic methods and correction.	Topic 9.1. Algorithm of differential diagnosis of endocrinological pathology.	Lectures, Lab work.
	Topic 9.2. Trichoscopy, analysis of the results of scotch tests and scrapings.	Lectures, Lab work.
	Topic 9.3. Blood and urine testing.	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 students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to an electronic information and educational environment.	-

7. RESOURCES RECOMMENDED FOR COURSE STUDIES

Main readings:

1. Zhukov V.M. Organopathology of light productive animals : textbook / V.M. Zhukov, O.S. Mishina, N.M. Semenikhina. - 2nd ed., ispr. and add. - St. Petersburg : Publishing House "Lan", 2021. - 92 p. - (Textbooks for universities. Special literature). - ISBN 978-5-8114-2496-2. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=464971&idb=06)
2. Truflyak E. V., Kurchenko N. Yu., Tenekov A. A., Yakushev V. V., Borisenko I. B., Mashkov S. V., Lichman G. I., Daibova L. A. Precision agriculture: textbook for universities 2021.-512 p. https://e.lanbook.com/book/151671
3. Petryankin F. P., Petrova O. Yu. Diseases of young animals: a textbook for SPO 2022.-352 p. https://e.lanbook.com/book/153636

Additional Readings:

4. Akaevsky A.V., Yudichev Yu., Seleznev S.B. Anatomy of domestic animals / Edited by S.B. Seleznev / M.: Aquarium-Print LLC, 2009.- 638 p.
5. Andreevsky I. The book about diseases of horses. - - M.: Editorial URSS, 2012. - 532 p.
6. Dorosh M.V. Diseases of horses / M.: Veche, 2007. – 247 p.
7. Kerber Hans-Dieter Hoof diseases and horse forging. A desktop book for vet. doctors, kuznetsov-kovalyov and owners . - M.: Aquarium - Print, 2016. - 324 p.
8. Remy David W. Respiratory diseases of horses. - M.: Aquarium - Print, 2008. - 112 p.
9. Korneeva O. Diseases of horses Modern methods of treatment. - Moscow: Aquarium, 2007. - 1008 p.
10. Robinson, Edward N., Wilson, Matilda R. Diseases of horses. Modern methods of treatment. - M.: Aquarium - Print, 2007. - 1012 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/
- Google search engine https://www.google.ru/
- Scopus abstract database http://www.elsevierscience.ru/products/scopus/

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

1. A course of lectures on the course "**Diseases of productive animals**".
2. Laboratory workshop on the course "**Diseases of productive animals**".

* - 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).

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