

*Federal State Autonomous Educational Institution of Higher Education "Peoples' Friendship
University of Russia"*

Agricultural Technology Institute

Recommended by MCSD

WORKING PROGRAM OF DISCIPLINE

Name of discipline Animal pathology

Recommended for training / specialty

36.06.01 "Veterinary and animal science".

Program focus (specialization)

06.02.01 "Diagnosis of diseases and therapy of animals, pathology, oncology and morphology of
animals"

1. Goals and objectives of the discipline:

The purpose of the discipline in the training of highly qualified personnel is to form the worldview of the veterinarian, his ability to think logically, establish the sequence of occurrence and development of structural changes in the sick body, recognize the etiology and pathogenesis of pathological processes and diseases.

Objectives of the subject :

- carry out pathomorphological diagnosis,
- compare pathological changes with clinical,
- understand and evaluate the mechanisms of recovery, the general principles of the prevention and treatment of diseases,
- establish the causes, mechanisms of death,
- know environmentally sound technologies for the disposal of corpses and the economic use of recycled materials,
- Know forensic veterinary medicine to conduct an examination if necessary.

2. Place of discipline in the structure of HEC:

The discipline " Animal Pathology " refers to the variable part of Block 1 of the curriculum "Disciplines (modules)" , "Disciplines of choice."

Table No. 1 shows the previous and subsequent disciplines aimed at the formation of the competencies of the discipline in accordance with the competency matrix of HEC.

Table number 1.

Previous and subsequent disciplines aimed at the formation of competencies

No. p / p	Code and name of competency	Previous disciplines	Subsequent disciplines (groups of disciplines)
Universal competencies			
1	UC-5. Ability to follow ethical standards in professional activity .	Diagnosis of diseases and therapy of animals; Anatomy and histology of animals;	The main stages of the formation of the animal organism; Pedagogical practice; Science research practice
General professional competencies			
2	GPC-1. Own the necessary knowledge system in the field corresponding to the direction of training.	Diagnosis of diseases and therapy of animals;	Anatomy and histology of animals; The main stages of the formation of the animal organism; Pedagogical practice; Science research

			practice; Science research
3	GPC -6. The ability to improve on the basis of traditional morality.	Diagnosis of diseases and therapy of animals;	Anatomy and histology of animals; The main stages of the formation of the animal organism
Professional competencies			
4	PC-1. The ability to understand the modern problems of veterinary medicine, livestock and use fundamental ideas in the field of professional activity for the formulation and solution of new problems.	Diagnosis of diseases and therapy of animals;	Anatomy and histology of animals; The main stages of the formation of the animal organism

3. Requirements for the results of mastering the discipline:

The process of studying the discipline is aimed at the formation of the following competencies:

UC-5. Ability to follow ethical standards in professional activity.

GPC-1. Own the necessary knowledge system in the field corresponding to the direction of training.

GPC -6. The ability to improve on the basis of traditional morality.

PC-1. The ability to understand the modern problems of veterinary medicine, livestock and use fundamental ideas in the field of professional activity for the formulation and solution of new problems.

As a result of studying the discipline, the student must:

To know :

- general pathological anatomy;
 - morphological manifestations of metabolic disorders in tissues;
 - disorders of blood and lymph circulation and tissue fluid metabolism;
 - adaptive, compensatory (restorative) and tumor processes;
 - private (special pathological anatomy);
 - morphogenesis, pathomorphology and pathomorphological diagnosis of infectious and non-infectious diseases;
 - a sectional course for mastering the methods of pathomorphological diagnosis of animal diseases and determining the causes of their death, as well as technology for the disposal of corpses, taking into account environmental safety and the economic use of recycled materials;
- forensic veterinary medicine for examination.

To be able to :

- methodically correctly performing autopsy and pathomorphological diagnosis;
- to record the results and issue a conclusion on the causes of death of animals;
- correctly take, record and forward pathological material for laboratory research;
- apply the basic methods of histopathological techniques and diagnosis of animal diseases;
- carry out a comprehensive differential pathomorphological diagnosis of animal diseases during autopsy, as well as in histopathological studies;

- carry out forensic veterinary examination.

To own :

- specific theoretical knowledge of the discipline.
- modern methods and methods of studying the structural organization of biological objects at all its levels.
- the technique of postmortem autopsy of animals of various species;
- the technique of manufacturing pathological and histopathological preparations (museum macroscopic and microscopic exhibits).
- modern information and innovative technologies.

3. The volume of discipline and types of educational work

The total complexity of the discipline is 4. credit units. ____

Type of study	Total hours	Semester			
					4
Classroom activities (total)	80				80
Including:	-				-
Lectures	40				40
Practical Activities (PP)	40				40
Workshops (C)					
Laboratory work (LR)					
Independent work (total)	37				37
Formative/Summative Assessment	27				27
Total labor time hour	144				144
Zach . units	4				4

5. The content of the discipline

5.1. The content of the sections of the discipline

No. p / p	The name of the discipline section	Section content (topics)
1.	General pathology	- thanatology - Pathohistotechnics - Alteration - Disorders of blood and lymph circulation - inflammation. Immunomorphology, immunopathology - Adaptive and compensatory reactions. Tumor growth
2.	Private pathology	- Pathophysiology of blood. Pathophysiology of the cardiovascular system - Pathophysiology of the respiratory system. Pathophysiology of the excretory system (kidneys). - Pathophysiology of digestion. Pathophysiology of the liver, pancreas - Pathophysiology of the endocrine system. Pathophysiology of the immune system. Pathophysiology of the nervous system

5.2 Sections of the discipline and types of classes

No. p / p	Section Name	Lectures	Practical exercises and laboratory work			IW	Assessment	Total
			PP/C	LR	of them in IF			
1	General pathological anatomy	20	20		10	17	12	69
2	Private pathological anatomy	20	20	-	14	20	15	75

6. Laboratory workshop

Not provided.

7. Practical classes (seminars)

No. p / p	Discipline section number	Name of laboratory work	Labor intensity (hour.)
1.	1	Thanatology	3
2.		Pathohistotechnics	3
3.		Alteration	3
4.		Violations of blood - and lymph circulation	3
5.		Inflammation. Immunomorphology, immunopathology	4
6.		Adaptive and compensatory reactions. Tumor growth	4
7.	2	Pathophysiology of blood. Pathophysiology of the cardiovascular system	5
8.		Pathophysiology of the respiratory system. Pathophysiology of the excretory system (kidney)	5
9.		Pathophysiology of digestion. Pathophysiology of the liver, pancreas	5
10.		Pathophysiology of the endocrine system. Pathophysiology of the immune system. Pathophysiology of the nervous system	5

8. Logistics

- Personal Computer.
- Multimedia equipment.

9. Inform Discount maintenance of discipline

a) Software

- Windows Enterprise
- Microsoft Office .

- Adobe Acrobat .

b) Databases, reference and search engines

1. www.cnsnb.ru ,
2. www.elibrary.ru ,
3. www.vet.purdue.edu ,
4. www.allvet.ru ,
5. www.glossary.ru ,
6. <https://www.ncbi.nlm.nih.gov/pubmed>
7. <http://www.uchvuz.ru>
8. <http://www.veterinarka.ru>
9. <https://www.medlit.biz>
10. <http://effect3.ru>
11. <https://cyberleninka.ru/>

10. Educational and methodological support of the discipline:

a) The main literature:

1. Zharov A.V., Shishkov V.P., Zhakov M.S. et al. Pathological anatomy of farm animals / Ed. V.P. Shishkova and A.V. Zharova: Textbook. for universities. - M .: Kolos, 2013 .-- 536 p.
<http://lib.rudn.ru/ProtectedView/Book/ViewBook/5665>
2. Zharov, A. V. Pathological physiology and pathological anatomy of animals: Textbook / A. V. Zharov [et al.]; Ed. A.V. Zharova. - 2nd ed., reslave . and add. . - SPb . : Doe, 2014 .-- 416 p. <http://lib.rudn.ru/ProtectedView/Book/ViewBook/5666>

b) Additional literature:

1. Andreeva M.V., Nyukkanov A.N. JUDICIAL VETERINARY AND SANITARY EXAMINATION: author . dis Dr., Associate Professor, k.v.n . Veterinary Sciences - Yakutsk, 2014.
2. Litvitsky P.F. Pathological anatomy and pathological physiology. - M .: GEOTAR-Media, 2015 .-- 496 p.
3. Vakhrusheva T. I. General pathological anatomy. - M .: Lambert, 2015 .-- 364 p. <https://e.lanbook.com/book/45681>
4. Klevno V.A. Forensic medical examination. - M.: GEOTAR-Media, 2013 .-- 136 p.
5. Salimov V. A. Workshop on the pathological anatomy of animals [Electronic resource]: Textbook / V.A. Salimov. - 2nd ed., Revised . and add. - SPb . : Publishing House "Lan", 2013. - 352 p. - (Textbooks for universities. Special literature). - ISBN 978-5-8114-1418-
5. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=465234&idb=0
6. Kozlov I.G., Krivenko D.V. Pathological anatomy and forensic veterinary examination. - Saratov: FSBEI HE Saratov State Agrarian University., 2016 .-- 129 p.


11. Guidelines for students in the development of the discipline (module)

Not provided.

12. Fund of assessment tools for intermediate certification of students in discipline (module)

*Materials for assessing the level of mastering the educational material of the discipline " **Animal pathology** " (evaluation materials), including a list of competencies indicating the stages of their formation, a description of indicators and criteria for evaluating competencies at various stages of their formation, a description of the assessment scales, typical control tasks or other materials , necessary for the assessment of knowledge, abilities, skills and (or) experience of activities that characterize the stages of the formation of competencies in the process of mastering the educational program, methodological materials that determine the procedures for assessing knowledge, skills, skills and (or) experience of activities that characterize the stages of formation of competencies, have been developed in full and are available for students on the discipline page at TUIS RUDN.*

Department Director


_____ Vatnikov Yu.A.