Federal State Autonomous Educational Institution for Higher Education PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA

Agrarian and Technological Institute

WORKING COURSE SYLLABUS

Forensic veterinary examination and dissection of animals

Recommended by the Methodological Council for the Education Field:

36.05.01 Veterinary medicine

2022

1. GOALS AND OBJECTIVES OF THE DISCIPLINE

The aim of mastering the discipline "**Forensic veterinary examination and dissection of animals**" is to form students' knowledge and skills to solve social issues arising in legal, investigative and judicial legal practice based on knowledge about the structure and logic of the pathoanatomic diagnosis.

2. REQUIREMENTS FOR THE RESULTS OF MASTERING THE DISCIPLINE

The development of the discipline "**Forensic veterinary examination and dissection of 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 discipline (results of the development of the discipline)

Code	Competence	Indicators of competence accomplishment (within the discipline)
UK-11	The ability to form an intolerant attitude to corrupt behavior	UK -11.1 Analyzes the current legal norms that ensure the fight against corruption in various areas of life, as well as ways to prevent corruption and form an intolerant attitude towards it
		UK -11.2 Plans, organizes and conducts activities that ensure the formation of a civic position and the prevention of corruption in society
		UK -11.3 Adheres to the rules of public interaction on the basis of compliance with current legislation and intolerant attitude to corruption
UK -12	The ability to search for the necessary sources of information and data, to perceive, analyze, memorize and transmit information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the information received to solve problems; to evaluate information, its reliability, build logical conclusions based on incoming information and data	UK -12.1 Searches for the necessary sources of information and data, perceives, analyzes, remembers and transmits information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the information received to solve problems
		UK-12.2 Evaluates information, its reliability, builds logical conclusions based on incoming information and data
GPC-2	The ability to interpret and	GPC-2.1 He has knowledge of the

	evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological state of the animal organism.	influence of natural, socio-economic, genetic and economic factors on the animal organism.
		GPC-2.2 He is able to establish the presence and reliability of cause-and-effect relationships between the effects of certain etiological factors on the animal's organism and the development of diseases.
		GPC-2.3 Possesses methods of preventive and therapeutic correction of the effects of adverse environmental factors that can cause deterioration of animal health.
GPC -5	The ability to draw up special documentation, analyze the results of professional activity and submit accounting documents using specialized databases.	GPC-5.1 Has the skills to search for the necessary forms of documentation on official websites and in specialized databases.
		GPC-5.2 Possesses professional terminology and skills in filling out analytical and reporting documents of a professional orientation.
		GPC-5.3 He is able to use specialized software to analyze the results of professional activity and compile accounting documentation.
GPC -6	The ability to analyze, identify and assess the risk of the risk of the 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-infectious, infectious and invasive diseases, identify pathogens of infectious and invasive diseases in animals.
		GPC-6.3 He knows the patterns of the occurrence and spread of diseases in animal populations, factors predisposing to diseases and the causes of possible complications.
PC -5	The ability to make a diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory research methods.	PC-5.1 He is able to diagnose patients of different types based on the analysis of anamnesis data, general, special (instrumental) and laboratory research methods.
		PC-5.2 He is able to predict the risks of diseases based on anamnestic data, the results of general, special (instrumental) and laboratory. studies.

PC -19	The ability to perform post-mortem diagnostic examination of animals in order to establish pathological processes, diseases, causes of death.	PC-19.1 Able to conduct a general examination of animal corpses before autopsy.
		PC-19.2 He is capable of performing autopsy of animal corpses using special tools and compliance with safety requirements.
		PC -19.3 He is able to establish the cause of death and a pathoanatomic diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases.
		PC-19.4 He is able to formalize the results of a postmortem diagnostic examination of an animal in the autopsy protocol.
PC -23	The ability to analyze the effectiveness of measures for the prevention of animal diseases in order to improve them.	PC-23.1 He is capable of collecting and analyzing information, including veterinary statistics data, necessary to assess the effectiveness of preventive antiepizootic measures, prevention of non-infectious animal diseases, veterinary and sanitary measures.
		PC-23.2 Able to evaluate the effectiveness of preventive measures and methods of their implementation, including using special software.
		PC -23.3 He is able to make suggestions on the correction of measures for the prevention of animal diseases on the basis of the analysis carried out.

3. COURSE IN HIGHER EDUCATION

The discipline "**Forensic veterinary examination and dissection of animals**" 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 discipline "**Forensic veterinary examination and dissection of animals**".

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

Competence code	**Competence**	**Previous Disciplines**	**Subsequent Disciplines (Modules)**

		(Modules)	
UK -11	The ability to form an intolerant attitude to corrupt behavior	Jurisprudence Philosophy	Veterinary deontology Personality psychology and professional self-determination Organization of state veterinary supervision Fundamentals of social and legal knowledge
UK -12	The ability to search for the necessary sources of information and data, to perceive, analyze, memorize and transmit information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the information received to solve problems; to evaluate information, its reliability, build logical conclusions based on incoming information and data	Jurisprudence Computer science Philosophy Life safety Instrumental diagnostic methods Organization of veterinary business	Mathematics Veterinary deontology Medicinal and poisonous plants Fundamentals of intellectual work Personality psychology and professional self-determination Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases Organization of state veterinary supervision Veterinary and industrial laboratories with the basics of design Biometrics in veterinary medicine Fundamentals of social and legal knowledge Space technologies in the service of the agro-industrial complex
GPC -2	The ability to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological state of the animal organism.	Biology with the basics of ecology Veterinary genetics Veterinary microbiology and mycology Virology and biotechnology Physiology and ethology of animals Breeding with the basics of private	Immunology General and veterinary ecology Veterinary sanitation Forage plants Zoopsychology Animal Health Diseases of horses Diseases of productive animals Diseases of small pets Diseases of small pets

		animal husbandry Animal health and welfare Pathological physiology Veterinary Radiobiology Pathological anatomy Instrumental diagnostic methods Toxicology Obstetrics, gynecology and andrology Internal non-infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases	Bee diseases and entomophages Fish pathology and aquaculture Diseases of exotic animals Anesthesiology, intensive care and intensive care Dermatology Cardiology Endocrinology Nephrology Veterinary Ophthalmology Animal Dentistry
GPC -5	The ability to draw up special documentation, analyze the results of professional activity and submit accounting documents using specialized databases.	Veterinary genetics Computer science Breeding with the basics of private animal husbandry Clinical diagnosis Pathological anatomy Operative surgery with topographic anatomy Instrumental diagnostic methods Obstetrics, gynecology and andrology Internal non-infectious diseases Parasitology and invasive diseases Epizootology and infectious diseases Veterinary and sanitary	Veterinary deontology Economics and organization of agricultural production Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases Organization of state veterinary supervision Veterinary and industrial laboratories with the basics of design Anesthesiology, intensive care and intensive care Dermatology Cardiology Endocrinology Nephrology

		examination Organization of veterinary business	
GPC -6	The ability to analyze, identify and assess the risk of the risk of the occurrence and spread of diseases	Biology with the basics of ecology Life safety Veterinary microbiology and mycology Virology and biotechnology Animal health and welfare Feeding animals with the basics of feed production Veterinary Radiobiology Clinical diagnosis Pathological anatomy Instrumental diagnostic methods Toxicology Obstetrics, gynecology and andrology Internal non-infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases Veterinary and sanitary examination Organization of veterinary business	Introduction to the specialty General and veterinary ecology Veterinary sanitation Technology of processing livestock products Medicinal and poisonous plants Forage plants Animal Health Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases Organization of state veterinary supervision Diseases of horses Diseases of productive animals Diseases of small pets Diseases of small pets Bee diseases and entomophages Fish pathology and aquaculture Diseases of exotic animals Anesthesiology, intensive care and intensive care Veterinary Ophthalmology Animal Dentistry
PC -5	The ability to make a diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory research methods	Veterinary genetics Cytology, histology and embryology Physiology and ethology of animals Breeding with the basics of private	Zoopsychology Diseases of horses Diseases of productive animals Diseases of small pets Diseases of small pets Bee diseases and

		animal husbandry Feeding animals with the basics of feed production Pathological physiology Clinical diagnosis Pathological anatomy Toxicology Obstetrics, gynecology and andrology Internal non-infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases	entomophages Fish pathology and aquaculture Diseases of exotic animals Anesthesiology, intensive care and intensive care Dermatology Cardiology Endocrinology Nephrology Reconstructive and reconstructive surgery Veterinary Ophthalmology Animal Dentistry
PC -19	Ability to perform post-mortem diagnostic examination of animals in order to establish pathological processes, diseases, causes of death	Animal anatomy Cytology, histology and embryology Life safety Pathological anatomy Toxicology Obstetrics, gynecology and andrology Internal non-infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases Veterinary and sanitary examination	Clinical laboratory diagnostics Laboratory diagnostics of infectious and invasive diseases Diseases of horses Diseases of productive animals Diseases of small pets Bee diseases and entomophages Fish pathology and aquaculture Diseases of exotic animals Dermatology Cardiology Endocrinology Nephrology Veterinary Ophthalmology Animal Dentistry
PC -23	Ability to analyze the effectiveness of measures for the prevention of animal diseases in order	Breeding with the basics of private animal husbandry Animal health and	Fundamentals of Economics and Management Veterinary sanitation

	to improve them	welfare Toxicology Internal non-infectious diseases General surgery Private Veterinary surgery Parasitology and invasive diseases Epizootology and infectious diseases Veterinary and sanitary examination Organization of veterinary business	Economics and organization of agricultural production Animal Health Organization of state veterinary supervision Bee diseases and entomophages Fish pathology and aquaculture

4. COURSE WORKLOAD AND TRAINING ACTIVITIES

Course workload of the discipline "**Forensic veterinary examination and dissection of animals**" is 2 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		36	36	-	-	-
including						
Lectures		-	-	-	-	-
Lab work		36	36	-	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		28	28	-	-	-
Evaluation and assessment (exam/pass/fail grading)		8	8	-	-	-
Course workload	Academic hour	**72**	**72**	**-**	**-**	-
	Credit unit	**2**	**2**	**-**	**-**	-

*Table 4.2. Types of academic activities during the period of the HE program mastering for **part-time** study*

Types of academic activities	**HOURS**	**Semesters**			
		A	**-**	**-**	**-**
Contact academic hours	18	18	-	-	-
including					

Lectures		-	-	-	-	-
Lab work		18	18	-	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		40	40	-	-	-
Evaluation and assessment (exam/pass/fail grading)		14	14	-	-	-
Course workload	Academic hour	**72**	**72**	**-**	**-**	-
	Credit unit	**2**	**2**	**-**	**-**	-

5. CONTENT OF THE DISCIPLINE

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

Name of the discipline section	Content of the section (topics)	Types of academic activities
Section 1. General principles of forensic veterinary medicine.	Topic 1.1. Subject of forensic veterinary medicine.	Lab work.
	Topic 1.2. The history of the development of forensic veterinary medicine.	Lab work.
	Topic 1.3. Scientific and methodological, procedural and organizational bases of forensic veterinary medicine.	Lab work.
	Topic 1.4. Forensic veterinary examination in civil cases.	Lab work.
	Topic 1.5. The Law of the Russian Federation "On Veterinary Medicine" and its role in the implementation of veterinary measures and forensic veterinary examination.	Lab work.
Section 2. Private forensic veterinary medicine.	Topic 2.1. The modern doctrine of death – thanatology.	Lab work.
	Topic 2.2. Forensic veterinary examination of an animal corpse.	Lab work.
	Topic 2.3. Examination of an animal corpse in case of sudden death.	Lab work.
	Topic 2.4. Examination of injuries and death of an animal from asphyxia.	Lab work.
	Topic 2.5. Examination of damage and death of an animal by drowning.	Lab work.
	Topic 2.6. Examination of an exhumed corpse or individual organs.	Lab work.

	Topic 2.7. Forensic veterinary toxicology.	Lab work.
	Topic 2.8. Forensic veterinary traumatology. Examination of damage of mechanical origin.	Lab work.
	Topic 2.9. Examination of damages caused by the action of extreme temperatures and electricity.	Lab work.
	Topic 2.10. Examination of animals in infectious and invasive pathology.	Lab work.
	Topic 2.11. Examination of the materials of the court case.	Lab work.

6. CLASSROOM INFRASTRUCTURE 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 discipline** (if necessary)
Laboratory	An auditorium for laboratory work, individual consultations, routine monitoring and interim certification, equipped with a set of specialized furniture and equipment.	- *Multimedia equipment.* - *Microtome.* - *Microscopes.* - *Autopsy tables*
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. RECOMMENDED SOURCES FOR COURSE STUDIES

Main reading:

1. Kunakov A. A. Forensic veterinary and sanitary examination / Kunakov A. A., Seregin I. G., Talanov G. A., Zabashta A. G. – St. Petersburg : Quadro, 2020. – 400 p.
2. Kravtsov A.P., Lushchai Yu.S., Tkachenko L.V. Forensic veterinary examination: textbook 2018.-72 p. https://e.lanbook.com/book/104873

Additional Reading:

1. Vakhrusheva E.I. Private (special) pathological anatomy: textbook. – Krasnoyarsk State Agrarian University 2013 – 168 p . https://e.lanbook.com/book/90782?category=43775
2. Kudryashov, A.A. Forensic veterinary examination / A.A. Kudryashov, V.L. Balabanova. — Saint Petersburg : SPbGAVM, 2015. — 51 p. — Text : electronic // Electronic library system "Lan" : [website]. — URL: https://e.lanbook.com/book/121321
3. Latypov, D.G. Fundamentals of forensic veterinary examination : textbook / D.G. Latypov, I.N. Zalyalov. — 2nd ed., reprint. — Saint Petersburg : Lan, 2015. — 576 p. — ISBN 978-5-8114-1795-7. — Text : electronic // Electronic library system "Lan" : [website]. — URL: https://e.lanbook.com/book/56169
4. Kravtsov, A.P. Forensic veterinary examination : textbook / A.P. Kravtsov, Yu.S. Lushchai, L.V. Tkachenko. — Saint Petersburg : Lan, 2018. — 72 p. — ISBN 978-5-8114-3084-0. — Text : electronic // Electronic library system "Lan" : [website]. — URL: https://e.lanbook.com/book/104873
5. Latypov D.G., Zalyalov I.N., Autopsy and pathological diagnosis of animal diseases. – M.: Lan 2015 – 384 p. https://e.lanbook.com/book/65956
6. Pathological physiology and pathological anatomy of animals [Electronic resource] : Textbook / A.V. Zharov [et al.]; Edited by A.V. Zharov. - 2nd ed., reprint. and additional ; Electronic text data. - St. Petersburg : Lan, 2014. - 416 p. : ill. (+ pasting, 16 p.). - (Textbooks for universities. Special literature) . - ISBN 978-5-8114-1534-2 : 1100.00. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=452266&idb=0

Resources of the Internet information and telecommunication network:

1. Electronic library system of RUDN and third-party Electronic library systems to which university students have access on the basis of concluded contracts:
- Electronic library system of RUDN - ELS RUDN http://lib.rudn.ru/MegaPro/Web
- ELS "University Library online"http://www.biblioclub.ru
- ELS Yurayt http://www.biblio-online.ru
- ELS "Student Consultant"www.studentlibrary.ru
- ELS "Lan"http://eZlanbook.com/
- ELS "Trinity Bridge"http://www.trmost.com/

2. Databases and search engines:
- electronic fund of legal and regulatory and technical documentation http://docs.cntd.ru/
- search engine Yandex https://www.yandex.ru/
- search engine Google https://www.google.ru/
- abstract database SCOPUS 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 discipline "**Forensic veterinary examination and dissection of animals**".
2. Laboratory workshop on the discipline "**Forensic veterinary examination and dissection of animals**".

* - All educational and methodological materials for independent work of students are placed in accordance with the current procedure on the discipline page in the **Telecommunication educational and Information System!**

8. MID-TERM ASSESSMENT

Evaluation materials and a point-rating system* for assessing the level of competence formation (part of competencies) based on the results of mastering the discipline "**Forensic veterinary examination and dissection of animals**" are presented in the Appendix to this Work Program of the discipline.

* - Assessment Materials and a Point Rating System are formed based on the requirements of the relevant local regulatory act of the RUDN.

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