WORKING COURSE SYLLABUS

Obstetrics, gynecology and andrology

Recommended by the Methodological Council for the Education Field:

36.05.01 Veterinary medicine

1. GOALS AND OBJECTIVES OF THE DISCIPLINE

The aim of the mastering the discipline "**Obstetrics, gynecology and andrology**" is to acquire students of theoretical knowledge and practical skills in the field of veterinary obstetrics, gynecology, andrology and biotechnology of reproduction of agricultural and small domestic animals, providing not only a successful intensification of animal reproduction, which consists in the maximum safety of young animals, obtaining a viable offspring, as well as high quality products, but also in conducting systematic explanatory work in the circles of companion animal owners engaged in breeding.

2. REQUIREMENTS FOR THE RESULTS OF MASTERING THE DISCIPLINE

The development of the discipline "**Obstetrics, gynecology and andrology**" 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-1	The ability to carry out a critical analysis of problem	UK-1.1 Analyzes the task, highlighting its basic components;
	situations based on a systematic approach, to develop a strategy of action.	UK-1.2 Defines and ranks the information required to solve the task; UK -1.3 Searches for information to solve
		the task by various types of queries;
		UK-1.4 Offers solutions to the problem, analyzes the possible consequences of their use;
		UK -1.5 Analyzes the ways of solving problems of a philosophical, moral and personal nature based on the use of basic
		philosophical ideas and categories in their historical development and socio-cultural context.
GPC-1	The ability to determine the biological status and normative clinical indicators of organs and systems of the animal body.	GPC-1.1 Knows the structure and functions of the main systems of the animal body, taking into account species characteristics
		GPC-1.2 Able to predict expected disturbances in biological status when diseases are suspected
		GPC-1.3 Is able to determine the main performance indicators of individual body systems and draw conclusions about the presence of deviations from the normative

		values
		GPC-1.4 Knows how to take samples of biological fluids and tissues for research, perform laboratory research, interpret research results.
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.	GPC-2.1 Knows the influence of natural, socio-economic, genetic and economic factors on the animal bodya GPC-2.2 Can establish the presence and validity of cause-effect relationships between the impact of certain etiological factors on the animal body and the development of diseases GPC-2.3 Knows the methods of preventive and therapeutic correction of the impact of unfavorable environmental factors that can cause deterioration of animal health
GPC-4	Ability to use in professional activity methods of solving problems using modern equipment in the development of new technologies and to use modern professional methodology for conducting experimental research and interpreting their results.	GPC-4.1 Knows the conceptual and methodological apparatus of the basic natural sciences at a level sufficient for full professional activity at the modern level GPC-4.2 Knows how to solve problems using modern equipment
		GPC-4.3Willingtousemodernmethodology in designing and conducting experimental researchGPC-4.4Usesmodernprofessionalmethodologyininterpretingresearchresults
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	GPC-6.1 Has knowledge in the field of

	and assess the danger of the risk of the occurrence and spread of diseases.	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 Knows the patterns of occurrence and spread of diseases in animal populations, factors predisposing to illnesses and causes of possible
PC-1	The ability to collect anamnesis of life and disease of animals to identify the causes of diseases and their nature	complications.PC-1.1 Able to compile an animal's lifehistory and record it in appropriate servicerecordsPC-1.2 Able to collect an animal'smedical history and reflect it in thepatient's medical historyPC-1.3 Is able to identify possible causesof disease in an animal, factorspredisposing to the disease andconcomitant conditions affecting thecourse of the disease and use thisinformation in making a diagnosis
PC-2	The ability to conduct a general clinical study of animals in order to establish a preliminary diagnosis and determine a further research program, as well as in accordance with the plan of antiepizootic measures, the plan for the prevention of non-communicable animal diseases	PC-2.1 Able to conduct a general clinical examination of animals of different species to establish a preliminary diagnosis and determine a further research program PC-2.2 Able to conduct mass clinical examinations of animals in accordance with the plan of anti-epizootic activities, the plan of prevention of non-
PC-3	Ability to develop animal research programs using special (instrumental) and laboratory methods	communicable diseases of animals PC-3.1 Can develop individual programs of animal research, including the use of special (instrumental) and laboratory methods to detect deviations from the physiological norm of the state of the living organism, differential diagnosis of detected pathology or control of the course of the disease and the effectiveness of the prescribed treatment PC-3.2 Capable of developing mass comprehensive animal research programs (dispensary programs) for animals, taking into account their type and purpose, both general and special

PC-4	The ability to conduct clinical studies of animals using special (instrumental) and laboratory methods to clarify the diagnosis	 PC-4.1 Able to perform additional examinations of animals using laboratory methods to clarify the diagnosis PC-4.2 Able to perform additional examinations of animals using special (instrumental) methods to clarify the
PC-5	The ability to make a diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory research methods	 (instrumental) methods to clarify the diagnosis PC-5.1 Is able to diagnose different types of patients based on analysis of anamnesis, general, special (instrumental) and laboratory examination data PC-5.2 Is able to predict the risks of disease on the basis of anamnestic data, the results of general, special (instrumental) and laboratory tests
PC -6	The ability to develop a treatment plan for animals based on the established diagnosis and individual characteristics of animals.	 PC-6.1 He is able to develop a treatment plan for animals based on the established diagnosis and individual characteristics of the animals. PC-6.2 He is able to develop recommendations on therapeutic and preventive manipulations to prevent diseases, the high probability of which was revealed during the study of the patient. PC-6.3 He is able to develop recommendations for carrying out preventive and curative measures based on the results of the examination of animals carried out as part of the medical examination.
PC -7	The ability to choose the necessary medicaments of chemical and biological nature for the treatment of animals, taking into account their combined pharmacological effect on the organism.	 PC-7.1 He is able to choose medicines of chemical and biological nature necessary for the treatment of animals, guided by the principles of evidence-based medicine, taking into account their combined pharmacological effect on the body PC-7.2 He is able to justify the prescription of a drug in a certain clinical case or the impossibility of using this drug in the situation under consideration PC-7.3 He is able to calculate the dose, frequency and duration of the course of application of the drug to the patient, taking into account the form of release and the characteristics of the administration of the drug to the patient

		PC-7.4 He is able to take into account
		drug interactions when prescribing a course of treatment to an animal already receiving medications and biologically
		active additives due to the presence of diseases identified earlier
		PC-7.5 He is able to take into account
		economic, species and age characteristics, as well as the results of laboratory studies
		of the patient when choosing drugs for the
PC-10	The ability to determine the	treatment of the patient PC-10.1 Can determine the necessity of
1010	need for the use of surgical and surgical methods in the	using operative-surgical methods in the treatment of animals
	treatment of animals	PC-10.2 Able to choose the optimal
		surgical method for the patient, taking into account external conditions and the
		patient's body status, and if several
		manipulations are necessary - their order
		and distribution in time PC-10.3 Able to consider risks and
		possible complications accompanying
		surgical interventions and take measures
PC-11	Ability to develop a plan for a	for their prevention PC-11.1 Capable of developing a surgical
	surgical operation, including	plan
	the choice of a method of pain relief	PC-11.2 Is able to select and justify the best option for anesthesia of the patient during surgery and in the postoperative period
PC-12	The ability to perform surgical	PC-12.1 Is able to prepare the room,
	intervention in the body of animals in the treatment of various diseases, castration,	equipment, and supplies necessary to perform a surgical procedure in an aseptic and antiseptic manner.
	animals in the treatment of	perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and
	animals in the treatment of various diseases, castration, sterilization, for cosmetic	 perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.3 Is able to prepare the patient for
	animals in the treatment of various diseases, castration, sterilization, for cosmetic	 perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.3 Is able to prepare the patient for surgical intervention, taking into account
	animals in the treatment of various diseases, castration, sterilization, for cosmetic	 perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.3 Is able to prepare the patient for surgical intervention, taking into account the requirements of asepsis and antisepsis.
	animals in the treatment of various diseases, castration, sterilization, for cosmetic	 perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.3 Is able to prepare the patient for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.4 Able to assist the operating surgeon during surgical interventions.
	animals in the treatment of various diseases, castration, sterilization, for cosmetic	 perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.3 Is able to prepare the patient for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.4 Able to assist the operating surgeon during surgical interventions. PC-12.5 Able to perform preventive and
	animals in the treatment of various diseases, castration, sterilization, for cosmetic	 perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.3 Is able to prepare the patient for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.4 Able to assist the operating surgeon during surgical interventions. PC-12.5 Able to perform preventive and economic operations (including castration,
	animals in the treatment of various diseases, castration, sterilization, for cosmetic	 perform a surgical procedure in an aseptic and antiseptic manner. PC-12.2 Is able to prepare the surgical team for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.3 Is able to prepare the patient for surgical intervention, taking into account the requirements of asepsis and antisepsis. PC-12.4 Able to assist the operating surgeon during surgical interventions. PC-12.5 Able to perform preventive and

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		diagnostic and therapeutic operations in animals of different species, taking into account the species, age and individual characteristics of patients.
PC-14	The ability to conduct repeated examinations and studies of animals to assess the effectiveness and safety of the	PC-14.1 Able to develop a repeat study plan necessary and sufficient to assess the predicted changes in the patient's health status
	the treatment plan for animals (if necessary) based on the	PC-14.2 Able to perform a repeat clinical examination, taking into account the specifics of diseases previously diagnosed in the patient
	effectiveness of treatment	PC-14.3 Able to perform necessary repeated instrumental and laboratory tests
		PC-14.4 Is able to analyze the identified changes, evaluate the effectiveness of the ongoing treatment and, if necessary, make adjustments to the prescribed course of treatment.
PC-16	The ability to organize organizational, technical, zootechnical and veterinary activities aimed at the prevention of non- communicable diseases in	PC-16.1 Capable of assessing the impact of animal housing and feeding conditions on animal health as part of the implementation of animal disease prevention plans
	communicable diseases in accordance with the plan for the prevention of non- communicable animal diseases	PC-16.2 Is able to carry out veterinary control of the quality and procurement of animal feed to ensure their veterinary and sanitary safety as part of the implementation of plans for the prevention of animal diseases
		PC-16.3 Able to identify deviations from the plan of timing, types, quality of measures to prevent the occurrence of non-communicable animals
		PC-16.4 Take corrective measures to implement measures to prevent the occurrence of non-communicable diseases of animals based on the results of control
		PC-16.5 Conduct talks, lectures, seminars for employees of the organization to explain the principles of work on the prevention of animal diseases
PC-18	The ability to draw up a plan for clinical examination of animals, taking into account	PC-18.1 Able to make a plan for the dispensary of animals, general or specialized, taking into account their
	their types and purpose,	species and purpose

	conduct medical examination, develop recommendations for conducting therapeutic and prophylactic and therapeutic measures based on the results	PC-18.2 Capable of organizing and conducting medical examinations according to the plan PC-18.3 Is able, on the basis of the results
	of examination of animals carried out as part of medical examination	of the dispensary, to make recommendations for therapeutic and prophylactic measures aimed at improving the health of the group of animals
PC -19	He is able, based on the results of medical examination, to give recommendations on the	PC-19.1 He is able to conduct a general examination of animal corpses before autopsy
	implementation of therapeutic and preventive and curative measures aimed at improving	PC-19.2 He is able to perform autopsy of animal corpses using special tools and compliance with safety requirements
	the health of a group of animals	PC-19.3 He is able to establish the cause of death and 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-24	Ability and readiness to promote veterinary knowledge, including in the field of animal	PC-24.1 Able to set goals to promote veterinary knowledge, plan strategy and tactics for upcoming events
	disease prevention	PC-24.2 Able to use computer and telecommunication tools to prepare and display materials used in the process of promoting veterinary knowledge
		PC-24.3 Able to hold talks, lectures, seminars for employees to explain the principles of animal disease prevention

3. COURSE IN HIGHER EDUCATION

The discipline " **Obstetrics, gynecology and andrology** " 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 "**Obstetrics, gynecology and andrology**".

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

Competence	Competence	Previous	Subsequent
code	L	Disciplines	Disciplines (Modules)
		(Modules)	
UK-1	The ability to carry out a critical analysis of problem situations based	History Philosophy Fundamentals of	General and private surgery Parasitology and
	on a systematic approach, to develop a strategy of	Economics and Management	invasive diseases Epizootology and
	action	Life safety Internal non- communicable	infectious diseases Veterinary and sanitary examination
		diseases	Organization of veterinary affairs
			Mathematics Veterinary deontology Space technologies at
			the service of the agro- industrial complex
			The basics of intellectual work Zoopsychology
			Organization of state veterinary supervision
			Career management
GPC-1	The ability to determine	Anatomy	Reconstructive surgery Coursework "Animal
010-1	the biological status and	Cytology, Histology	Anatomy"
	normative clinical	and Embryology	Immunology
	indicators of organs and	Physiology and	Diseases of bees and
	systems of the animal	ethology of animals	fish
	body.	Pathological	Clinical laboratory
		physiology	diagnostics
		Pathological	Laboratory diagnostics
		anatomy and	of infectious and
		forensic veterinary	invasive diseases
		examination	Veterinary and
		Clinical diagnostics	industrial laboratories
		Instrumental	with design basics
		diagnostic methods	Biometrics
			Anesthesiology, resuscitation and
			resuscitation and intensive care
GPC-2	The ability to interpret	Biology with the	Internal non-
	and evaluate in	basics of ecology	communicable
	professional activity the	Veterinary genetics	diseases
	influence of natural,	Veterinary	General and private
	socio-economic, genetic	Microbiology and	surgery
	and economic factors on	Mycology	Parasitology and

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	the physiological state of	Virology and	invasive diseases
	the animal organism.	biotechnology	Epizootology and
		Physiology and	infectious diseases
		ethology of animals	Forensic veterinary
		Breeding with the	medicine and animal
		basics of private	necropsy
		animal husbandry	Immunology
		Hygiene of animals	General and
		Feeding with the	Veterinary Ecology
		basics of forage	
		production	Diseases of bees and
		Pathological	fish
		physiology	Fodder plants
		Pathological	Zoopsychology
		anatomy and	Horse diseases
		forensic veterinary	Diseases of Productive
		examination	Animals
		Veterinary	Diseases of small pets
		•	
		radiobiology	Diseases of small pets
		Instrumental	Ophthalmology
		diagnostic methods	Dentistry
		Toxicology	Anesthesiology,
			resuscitation and
			intensive care
GPC-4	The ability to use	Inorganic and	Internal non-
	methods of solving	analytical chemistry	communicable
	problems using modern	Organic chemistry	diseases
	equipment in the	Physical and	General and private
	development of new	colloidal chemistry	surgery
	technologies in	Biological	Parasitology and
	professional activity and	chemistry	invasive diseases
	to use modern	Biological physics	Epizootology and
	professional methodology	Computer science	infectious diseases
	for conducting	Cytology, Histology	Mathematics
	experimental research and	and Embryology	Immunology
	interpreting their results.	Veterinary	Veterinary sanitation
		Microbiology and	Processing technology
		Mycology	for livestock products
		Virology and	Diseases of bees and
		biotechnology	fish
1		Physiology and	Snace fechnologies at
		Physiology and ethology of animals	Space technologies at the service of the agro-
		ethology of animals	the service of the agro-
		ethology of animals Breeding with the	the service of the agro- industrial complex
		ethology of animals Breeding with the basics of private	the service of the agro- industrial complex Visual storytelling:
		ethology of animals Breeding with the basics of private animal husbandry	the service of the agro- industrial complex Visual storytelling: from simple ideas to
		ethology of animals Breeding with the basics of private animal husbandry Pathological	the service of the agro- industrial complex Visual storytelling: from simple ideas to multimedia projects
		ethology of animals Breeding with the basics of private animal husbandry	the service of the agro- industrial complex Visual storytelling: from simple ideas to

		anatomy and	Foddor planta
			Fodder plants The basics of
		forensic veterinary examination	intellectual work
		Veterinary	Personality
		radiobiology	psychology and
		Clinical diagnostics	professional self-
		Operative surgery	determination
		with topographic	Clinical laboratory
		anatomy	diagnostics
		Instrumental	Laboratory diagnostics
		diagnostic methods	of infectious and
		Toxicology	invasive diseases
			Biometrics
			Horse diseases
			Diseases of Productive
			Animals
			Diseases of small pets
			Diseases of small pets
			Ophthalmology
			Dentistry
			Animal disease
			therapy
			Anesthesiology,
			resuscitation and
			intensive care
			Reconstructive surgery
GPC-5	Ability to draw up special	Veterinary genetics	Internal non-
	documentation, analyze	Computer science	communicable
	the results of professional	Economics and	diseases
	activities and submit	organization of	Parasitology and
	reporting documents	agricultural	invasive diseases
	using specialized	production	Epizootology and
	databases.	Breeding with the	
		basics of private	Veterinary and
		animal husbandry	sanitary examination
		Pathological	Organization of
		anatomy and	-
		forensic veterinary	Forensic veterinary
		examination	medicine and animal
		Clinical diagnostics	necropsy
		Operative surgery	
		with topographic	Clinical laboratory
		anatomy	diagnostics
		Instrumental	Laboratory diagnostics
		diagnostic methods	of infectious and
		anghostic methous	invasive diseases
			Organization of state
1			veterinary supervision

GPC-6The ability to analyze, identify and assess the identify and assess the risk of the risk of occurrence and spread of diseases.Biology with the basics of ecology Uterinary Microbiology and MycologyInternal communicable diseasesGPC-6The ability to analyze, identify and assess the occurrence and spread of diseases.Biology with the basics of ecology Uterinary Microbiology and Biotechnology Hygiene of animals Feeding animals with the basics of forage production Pathological anatomy and forensic veterinary Revening MicrobiologyNeterinary surgery Parasitology invasive diseases Epizootology infectious diseases Veterinary sanitary examinatio Organization veterinary affairs anatomy and forensic veterinary Revening Pathological anatomy and forensic veterinary surgeryIntroduction to radiobiology Veterinary RidobiologyIntroduction to radiobiology specialtyIntroduction to radiobiologyspecialty Clinical diagnostics	and non- vate and and and on of
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Instrumental Veterinary Ecology	/
diagnostic methods Veterinary sanitati	
Toxicology Processing techno	
for livestock produ	
Diseases of bees	
	anu
fish	
Space technologie	
the service of the a	gro-
industrial complex	
Medicinal	and
poisonous plants	
Fodder plants	
Clinical labora	torv
diagnostics	- 5
Laboratory diagno	stice
of infectious	and
	and
invasive diseases	
Organization of	
veterinary supervis	ıon
Horse diseases	
Diseases of Produc	
Animals	tive

			Diseases of small pets Diseases of small pets
			Ophthalmology Dentistry
			Anesthesiology, resuscitation and intensive care
PC-1	The ability to collect anamnesis of life and disease of animals to identify the causes of diseases and their nature	Veterinary genetics Physiology and ethology of animals Breeding with the basics of private animal husbandry Hygiene of animals Feeding animals with the basics of forage production Clinical diagnostics Toxicology	Internalnon-communicablediseasesGeneral and privatesurgeryParasitologyandinvasive diseasesEpizootologyandinfectious diseasesFundamentalsofRhetoricandCommunicationVeterinary deontologyZoopsychologyPersonalitypsychologyandprofessionalself-determinationHorse diseasesDiseases of ProductiveAnimalsDiseases of small petsDiseases of small petsOphthalmologyDentistryAnesthesiology,resuscitationandintensive careReconstructive surgery
PC-2	The ability to conduct a general clinical study of animals in order to establish a preliminary diagnosis and determine a further research program, as well as in accordance	ethology of animals Pathological physiology Pathological anatomy and	Diseases of bees and fish Anesthesiology, resuscitation and intensive care
	with the plan of antiepizootic measures, the plan for the prevention of non- communicable animal	forensic veterinary examination Clinical diagnostics	

	diseases		
PC-3	diseases Ability to develop animal research programs using special (instrumental) and laboratory methods	Anatomy Organic chemistry Physical and Colloidal Chemistry Biological chemistry Biological physics Veterinary Microbiology and Mycology Virology and biotechnology Physiology and ethology of animals Pathological physiology Pathological anatomy and forensic veterinary examination Clinical diagnostics Instrumental diagnostic methods Toxicology	Immunology Veterinary deontology Diseases of bees and fish Clinical laboratory diagnostics Laboratory diagnostics of infectious and
PC-4	The ability to conduct clinical studies of animals using special (instrumental) and laboratory methods to clarify the diagnosis	Anatomy Biological chemistry Biological physics Cytology, Histology and Embryology Veterinary Microbiology and Mycology and Mycology and biotechnology Physiology and ethology of animals Pathological physiology	infectious diseases Coursework "Animal Anatomy"

		Dathalagical	invasive diseases
		Pathological anatomy and forensic veterinary examination Clinical diagnostics Instrumental diagnostic methods	Horse diseases
PC-5	The ability to make a diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory research methods	• •	Internal non- communicable diseases General and private surgery Parasitology and invasive diseases Epizootology and infectious diseases Forensic veterinary medicine and animal necropsy Diseases of bees and fish Zoopsychology
PC-6	The ability to make a diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory research methods	Veterinary genetics Veterinary Microbiology and Mycology and Virology and biotechnology Pathological physiology Veterinary pharmacology Toxicology	Internalnon-communicablenon-diseasesGeneral and privatesurgeryParasitologyandinvasive diseasesEpizootologyandinfectious diseasesMathematicsImmunologyImmunology

fish Zoopsycho Horse dise Diseases o Animals	
Diseases o Ophthalmo Dentistry Animal therapy	of Productive f small pets f small pets ology disease
Anesthesic	
resuscitatio	
intensive c Reconstruct	are ctive surgery
PC-7 The ability to select the Inorganic and Internal	non-
necessary medicinal analytical chemistry communication	
products of a chemical Organic chemistry diseases	
	and private
the treatment of animals, Colloidal Chemistry surgery	
taking into account their Biological Parasitolog	
combined chemistry invasive di	
pharmacological effect on Veterinary Epizootolo the body Microbiology and infectious	
the bodyMicrobiologyandinfectiousMycologyDiseases	of bees and
Virology and fish	
biotechnology Medicinal	and
Pathological poisonous	plants
physiology Horse dise	ases
	of Productive
pharmacology Animals	C 11
	f small pets
Diseases o Ophthalmo	f small pets
Dentistry	Jiogy
Animal	disease
therapy	
Anesthesic	ology,
resuscitation	
intensive c	
	and private
the need for the use of Cytology, Histology surgery surgical and surgical and Embryology Horse dise	00000
	of Productive
of animals Microbiology and Animals	1 1 100001100
65	f small pets
	f small pets

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		ethology of animals	Ophthalmology
		Pathological	Dentistry
		physiology Dath also size 1	Reconstructive surgery
		Pathological	
		anatomy and	
		forensic veterinary	
		examination	
DC 11		Clinical diagnostics	Concert on the minute
PC-11	Ability to develop a plan	Anatomy	General and private
	for a surgical operation,	Veterinary Mismahialassa and	surgery
	including the choice of a	Microbiology and	
	method of pain relief	Mycology	Anatomy"
		Physiology and	Anesthesiology,
		ethology of animals	resuscitation and
		Pathological	intensive care
		physiology Dathalagiaal	Reconstructive surgery
		Pathological	
		anatomy and	
		forensic veterinary examination	
		Veterinary pharmacology	
		with topographic anatomy	
PC-12	The ability to perform	Anatomy	Coursework "Animal
10-12	surgical intervention in	Veterinary	Anatomy"
	the body of animals in the	Microbiology and	Reconstructive surgery
	treatment of various	Mycology	
	diseases, castration,	Pathological	
	sterilization, for cosmetic	anatomy and	
	purposes	forensic veterinary	
	1	examination	
		Operative surgery	
		with topographic	
		anatomy	
PC-14	The ability to conduct	Cytology, Histology	Internal non-
	repeated examinations	and Embryology	communicable
	and studies of animals to	Physiology and	diseases
	assess the effectiveness	ethology of animals	General and private
	and safety of the	Pathological	surgery
	prescribed treatment and	physiology	Parasitology and
	adjust the treatment plan	Pathological	invasive diseases
	for animals (if necessary)	anatomy and	Epizootology and
	based on the results of	forensic veterinary	
	evaluating the	examination	Clinical laboratory
	e	••••••••••	
	effectiveness of treatment	Veterinary pharmacology	diagnostics Horse diseases

PC-16	The ability to organize organizational, technical, zootechnical and veterinary activities aimed at the prevention of non-communicable diseases in accordance with the plan for the prevention of non- communicable animal diseases	Clinical diagnostics Instrumental diagnostic methods Toxicology Veterinary genetics Fundamentals of Economics and Management Economics and organization of agricultural production Life safety Physiology and ethology of animals Breeding with the basics of private animal husbandry	diseases General and private surgery Organization of veterinary affairs Diseases of bees and fish Medicinal and poisonous plants Fodder plants Zoopsychology Horse diseases
		Hygiene of animals Feeding animals with the basics of forage production	Diseases of Productive Animals Diseases of small pets Diseases of small pets Ophthalmology Dentistry
PC-18	The ability to draw up a plan for clinical examination of animals, taking into account their types and purpose, conduct medical examination, develop recommendations for conducting therapeutic and prophylactic and therapeutic measures based on the results of examination of animals carried out as part of medical examinatio006E	Veterinary genetics Physiology and ethology of animals Breeding with the basics of private animal husbandry Hygiene of animals Feeding animals with the basics of forage production Pathological physiology Pathological anatomy and forensic veterinary examination Veterinary pharmacology	Internal non- communicable diseases General and private surgery Clinical laboratory diagnostics Horse diseases Diseases of Productive Animals Diseases of small pets Diseases of small pets Ophthalmology Dentistry

		<u>C1' ' 1 1' ''</u>	
		Clinical diagnostics	
		Instrumental	
		diagnostic methods	
		Toxicology	
PC-19	The ability to perform	Anatomy	Internal non-
	postmortem diagnostic	Cytology, Histology	communicable
	examination of animals in	and Embryology	diseases
	order to establish	Life safety	General and private
	pathological processes,	Pathological	surgery
	diseases, causes of death	anatomy and	Parasitology and
		forensic veterinary	invasive diseases
		examination	Epizootology and
		Toxicology	infectious diseases
		05	Veterinary and
			sanitary examination
			Forensic veterinary
			medicine and animal
			necropsy
			Coursework "Animal
			Anatomy"
			Diseases of bees and
			fish
			Clinical laboratory
			diagnostics
			Laboratory diagnostics
			of infectious and
			invasive diseases
			Horse diseases
			Diseases of Productive
			Animals
			Diseases of small pets
			Diseases of small pets
			Ophthalmology
DC 24		D	Dentistry
PC-24	Ability and readiness to	Economics and	Internal non-
	promote veterinary	organization of	communicable
	knowledge, including in	agricultural	diseases
	the field of animal disease	production	General and private
	prevention	Physiology and	surgery
		ethology of animals	Parasitology and
		Breeding with the	invasive diseases
		basics of private	Epizootology and
		animal husbandry	infectious diseases
		Hygiene of animals	Fundamentals of
		Feeding animals	Rhetoric and
		with the basics of	Communication
		forage production	Introduction to the
		Pathological	specialty
		Pathological	specialty

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	physiology	General and
	Pathological	Veterinary Ecology
	anatomy and	5
	forensic veterinary	Veterinary deontology
	examination	Diseases of bees and
	Toxicology	fish
		Medicinal and
		poisonous plants
		Fodder plants
		Zoopsychology
		Horse diseases
		Diseases of Productive
		Animals
		Diseases of small pets
		Diseases of small pets
		Ophthalmology
		Dentistry
		Foreign language for
		special purposes
		Russian language for
		special purposes
		Communicative
		workshop
		Reconstructive surgery

4. COURSE WORKLOAD AND TRAINING ACTIVITIES

Course workload of the discipline "Obstetrics, gynecology and andrology" is 8 credits.

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

Types of academic activities		HOURS		Seme	esters	
			7	8	-	-
Contact academic hours		144	72	72	-	-
including						
Lectures		72	36	36	I	-
Lab work		72	36	36	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		116	58	58	-	-
Evaluation and assessment (exam/pass/fail		28	14	14	-	-
grading)						
Academic		288	144	144	-	-
Course workload hour						
	Credit	8	4	4	-	-

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

Types of academic activities		HOURS		Seme	esters	
			7	8	-	-
Contact academic hours		54	36	18	-	-
including						
Lectures		18	18	-	-	-
Lab work		36	18	18	-	-
Seminars (workshops/tutorials)		-	-	-	-	-
Self-study		200	92	108	-	-
Evaluation and assessment (exa	am/pass/fail	34	16	18	-	-
grading)						
	Academic	288	144	144	-	-
Course workload hour						
Credit		8	4	4	-	-
	unit					

5. CONTENT OF THE DISCIPLINE

Name of the discipline section	Content of the section (topics)	Types of academic activities
Section 1. Gynecology and Andrology.	Topic 1.1 Introduction. Reproductionphysiology.Ovogenesis.Spermiogenesis.	Lectures, Lab work
	Topic 1.2 The sexual cycle.	Lectures, Lab work
	Topic 1.3 Neurohumoral regulation of the sexual cycle.	Lectures, Lab work
	Topic 1.4 Physiology of the breast.	Lectures, Lab work
	Topic 1.5 Fertilization.	Lectures, Lab work
	Topic 1.6 Transplantation of zygotes.	Lectures, Lab work
	Topic 1.7 Functional impairment of the ovaries.	Lectures, Lab work
Section 2. Obstetrics.	Topic 2.1 Organization of artificial insemination.	Lectures, Lab work
	Topic 2.2 Physiology of pregnancy.	Lectures, Lab

	1 -	
	work	
Topic 2.3 Physiology of childbirth.	Lectures, work	Lab
Topic 2.4 Pathology of childbirth.	Lectures, work	Lab
Topic 2.5 Delivery operations.		
Topic 2.6 Pathology of the postpartum period.	Lectures, work	Lab
Topic2.7Postpartumuterineinflammation.	Lectures, work	Lab
Topic 2.8 Mammary pathology.	Lectures, work	Lab

6. CLASSROOM INFRASTRUCTURE AND TECHNOLOGY SUPPORT REQUIREMENTS

Classroom for Academic Activity Type	Equipping the classroom	Specialized educational/laboratory equipment, software and materials for the development of the discipline (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.	

 Table 6.1. Material and technical support of the discipline

7. RECOMMENDED SOURCES FOR COURSE STUDIES

Main reading:

- 1. Medicines used in veterinary obstetrics, gynecology, andrology and animal reproduction biotechnology : Textbook / G.P. Dulger [et al.] 1st ed. SPb. : Lan', 2021. 272 c. https://e.lanbook.com/book/75510
- 2. Polyantsev N. I. Workshop on obstetrics, gynecology and biotechnology of animal reproduction : textbook / N. I. Polyantsev. SPb. Lan', 2022. 272 c. https://e.lanbook.com/book/71726
- 3. Practicum on Obstetrics and Gynecology : Textbook / M. A. Bagmanov [et al.]. SPb. : Lan', 2018. 308 p. https://e.lanbook.com/book/92627

Additional Reading:

- 1. Gruzdev K.N. Rabies of animals: monograph / K.N. Gruzdev, A.E. Metlin. Vladimir: FGBI "VNIIZH", 2019. 393 p.: ill. 978-5-900026-73-2:.
- Nekrasov Gennady Davydovich. Obstetrics, gynecology and biotechnology of animal reproduction : textbook for universities / G.D. Nekrasov, I.A. Sumanova. - Moscow : Forum, 2009. - 176 c. - ISBN 978-5-91134-202-9
- Obstetrics, gynecology and biotechnology of animal reproduction [text] : textbook for universities / Edited by V.Y. Nikitin, M.G. Mirolyubov. - M. : KolosS, 2005. - 718 c. : ill. - (Textbooks and tutorials for students of higher education institutions). - ISBN 5-9532-0193-1

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 <u>http://lib.rudn.ru/MegaPro/Web</u>
- ELS "University Library online"<u>http://www.biblioclub.ru</u>
- ELS Yurayt http://www.biblio-online.ru
- ELS "Student Consultant"<u>www.studentlibrary.ru</u>
- ELS "Lan"<u>http://e.lanbook.com/</u>
- ELS "Trinity Bridge"<u>http://www.trmost.com/</u>
- 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 <u>https://www.google.ru/</u>
- 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 "Obstetrics, gynecology and andrology".
- 2. Laboratory workshop on the discipline "Obstetrics, gynecology and andrology".

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

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 " **Obstetrics, gynecology and andrology** " 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.

DEVELOPER:

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Medicine		Dinchenko O.I.		
Position, Basic curriculum	Signature	Full name.		
Associate Professor, Department of Veterinary Medicine		Troshina N.I.		
Position, Basic curriculum	Signature	Full name.		
HEAD OF THE DEPARTMENT:				
Department of Veterinary Medicine		Vatnikov Yu.A.		
Name Basic Curriculum	Signature	Full name.		
HEAD OF THE HIGHER EDUCATION PROGRAM:				
Director of the Department of Veterinary Medicine		Vatnikov Yu.A.		
Position, Basic curriculum	Signature	Full name		