EDUCATIONAL COMPONENT SYLLABUS

Clinical veterinary andrology

specialty	**211 – Veterinary medicine**	**the obligation of discipline**	**selective component**
educational program	**veterinary medicine**	**faculty**	**veterinary medicine**
educational level	**Master**	**department**	**veterinary surgery and reproductology**

LECTURERS

Fedorenko Serhii Yakovych

Higher education – Kharkiv Zooveterinary Institute, 1999, specialist, qualification – doctor of veterinary medicine.
Scientific degree - Doctor of Veterinary Sciences, specialty 16.00.07 - Veterinary obstetrics
Academic rank – Professor
Work experience – 25 years
Indicators of professional activity on the course topic:

- Co-author of 2 textbooks and 6 methodological recommendations;
- 20 years of scientific experience;
- co-author of thematic publications in the scientometric database Web of Science (more than 10).

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Naumenko Svitlana Valeriivna

Higher education – Kharkiv State Zooveterinary Academy, 2005, specialist, qualification – doctor of veterinary medicine.
Scientific degree - Doctor of Veterinary Sciences, specialty 16.00.07 - Veterinary obstetrics
Academic rank – Professor
Work experience – 20 years
Indicators of professional activity on the course topic:

- author of over 140 scientific works, including 13 articles included in the scientometric database Scopus and Web of Science, 114 articles in scientific professional publications of Ukraine, 2 textbooks, 4 monographs and 2 chapters of collective monographs, 46 abstracts of reports from international and all-Ukrainian scientific and practical conferences, 8 scientific and methodological recommendations and 2 technical conditions for veterinary drugs;
- 20 years of scientific experience.

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Siehodin Oleksandr Borysovych

Higher education – Kharkiv Zooveterinary Institute, 2001, specialist, qualification – doctor of veterinary medicine.
Scientific degree – Candidate of Veterinary Sciences (Ph.D.), specialty 16.00.05 – Veterinary surgery
Academic rank – Docent
Work experience – 24 years
Indicators of professional activity on the course topic:

- author and co-author of over 30 scientific works, including: textbooks in English – 3; chapter in a collective monograph – 1, patent for a utility model – 1;

20 years of scientific experience.

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Koshevoi Vsevolod Ihorovych

Higher education – Kharkiv State Zooveterinary Academy, 2019, Master of science, qualification – doctor of veterinary medicine.
Scientific degree – Doctor of Philosophy, specialty – 211 Veterinary medicine, State Biotechnological University, 2023.
Work experience – 2 years
Indicators of professional activity on the course topic:

- author of over 100 scientific works, including 6 articles included in the scientometric database Scopus, 45 articles in scientific professional publications of Ukraine (including 16 in English), 1 monograph and 2 chapters of collective monographs, 42 abstracts of reports of international and all-Ukrainian scientific and practical conferences, 6 scientific and methodological recommendations and 1 technical conditions for a veterinary drug;
- 10 years of scientific experience;
- reviewer of scientific articles in journals included in international scientometric databases (Scopus – World's Veterinary Journal; Web of Science – Uttar Pradesh Journal of Zoology; etc.).

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GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT (DISCIPLINE)

Goal	The purpose of studying the elective component "Clinical veterinary andrology" is to deepen the knowledge of higher education students about the etiopathogenesis, symptoms, diagnostics, including differential, of reproductive pathologies in male domestic animals, the prospects for implementing innovative means of therapy and prevention of andrological diseases, and ensuring the well-being and quality of life of males with chronic disorders of sexual function.
Format	lectures, practical classes, independent work, individual tasks.
Scope and forms of control	3 ECTS credits (90 hours): 12 hours of lectures, 18 hours of laboratory work, 60 hours of independent work; intermediate control (2 sections); final control – differentiated credit.
Teacher requirements	timely completion of independent work, presentations, activity, teamwork
Enrollment conditions	according to the curriculum

COMPLEMENTARY EDUCATION STANDARDS AND CURRICULUM

Competences	**general competences:** GC 2. Ability to apply knowledge in practical situations. GC 7. Ability to conduct research at an appropriate level. **special competences:** SC 4. Ability to conduct clinical studies to draw conclusions about the condition of animals or to establish a diagnosis. SC 8. Ability to plan, organize and implement measures to treat animals of different classes and species suffering from non-communicable, infectious and invasive diseases.	**Program learning outcomes**	This academic discipline ensures the formation of the following **program learning outcomes**: PLO 5. Establish a relationship between clinical manifestations of the disease and laboratory test results; PLO 7. Formulate conclusions regarding the effectiveness of selected methods and means of keeping, feeding and treating animals, prevention of infectious and non-infectious diseases, as well as production and technological processes at enterprises for keeping, breeding or operating animals of various classes and species; PLO 15. Know the rules for storing various pharmaceuticals and biological products, the methods of their enteral or parenteral administration, understand the mechanism of their action, interaction and complex effect on the animal body.

STRUCTURE OF THE EDUCATIONAL COMPONENT (DISCIPLINE)

Section 1. Clinical and laboratory diagnostic methods, the expansion of manifestations and etiopathogenetic features of andrological diseases

LECTURES		Laboratory and practical lesson		Independent work	
Lecture 1	Factors influencing and mechanisms of development of pathologies of the male reproductive system	**LL 1**	Analysis of the causes and characterization of pathogenetic mechanisms of reproductive diseases in males	**Independent work**	External factors and internal factors of male reproductive system disorders Main pathogenetic links of male reproductive diseases depending on the etiological factor Causal and effect relationships in the occurrence and manifestations of male reproductive system pathologies
Lecture 2	Prevalence of the main forms of manifestation of andrological diseases and their detection using clinical and special methods	**LL 2**	Sonographic and tomographic diagnostics of the male reproductive system – possibilities, prospects, data analysis		

Lecture 3	Biochemical, microbiological and other methods of laboratory diagnosis of reproductive disorders in males	**LL 3**	Biochemical markers of reproductive disorders. Identification of infectious and invasive pathogens with pronounced sexual tropism.		Means of clinical examination of males of different species Sonographic examination of the male reproductive system and interpretation of the obtained data Evaluation of biochemical changes and their comparative analysis with clinical manifestations of reproductive diseases Innovative biochemical markers of male sexual function Diagnosis of pathogens of sexual infections and invasions in biological substrates – blood, sperm, prostate secretion
		PL 1	Clinical examination of the male and the main changes identified by him in andrological diseases		
Section 2. Innovative therapeutic strategies and preventive measures for males with reproductive disorders					
Lecture 4	Antibiotic therapy, use of anti-inflammatory, analgesic, immunotropic and vitamin-hormonal drugs for andrological diseases of animals	**PL 2**	Overview of modern therapeutic strategies for pathologies of the male reproductive system	**Independent work**	Antibiotic therapy of male reproductive pathologies Anti-inflammatory and analgesic drugs for the treatment of males with andrological diseases Vitamin-hormonal and immunomodulatory drugs for males Characteristics of the compatibility of the main components of the complex treatment of animals for andrological diseases Providing males with energy and plastic material for the full functioning of the reproductive system Hygienic standards for the maintenance and use of broodstock of various species Preventive sanitary measures for broodstock Review of the antibacterial and wound healing effects of ozonated materials Sanitation of the preputial cavity and the means used for it Antioxidants in the therapy and prevention of reproductive disorders in males Complex treatment regimens for inflammatory reproductive diseases in males Prevention of andrological diseases in animals
		PL 3	Sanitary and hygienic means of preventing reproductive diseases		
Lecture 5	Preventive veterinary andrology – hygienic standards, rations and operating conditions of breeding animals in order to improve their productive qualities and prevent reproductive disorders	**PL 4**	Therapeutic potential and prophylactic use of ozone-containing drugs		
Lecture 6	The use of antioxidant compounds, preparations based on nanobiomaterials and ozone-containing agents in the therapy and prevention of andrological pathologies	**PL 5**	Treatment and preventive regimens for andrological diseases of animals using preparations based on nanobiomaterials and antioxidant compounds		
		LL 4	Analysis of diets, conditions of keeping and exploitation of breeding animals as factors of occurrence of pathologies of the reproductive system and their preventive value		

BASIC LITERATURE AND METHODOLOGICAL MATERIALS

Basic and additional literature	1. Biotekhnolohichni i molekuliarno-henetychni osnovy vidtvorennia tvaryn / [V.A. Yablonskyi, S.P. Khomyn, V.I. Zaviriukha ta in.] ; pid zah. red. Yablonskoho V.A., O.I. Serhiienka ta R.S. Stoika. – Lviv: TzOV "VF «Afisha»", 2009. – 218 s.: il. 2. Fiziolohiia ta patolohiia rozmnozhennia dribnykh tvaryn : navchalnyi posibnyk / [M.I. Kharenko, S.P. Khomyn, V.P. Koshovyi ta in.] ; pid zah. red. M.I. Kharenka. – Sumy : VAT «Sumska oblasna drukarnia», vydavnytstvo «Kozatskyi val», 2005. – 555 s. 3. Sperma buhaiv natyvna. Tekhnichni umovy : DSTU 3535-97. – K.: Derzhstandart Ukrainy, 1998. –24 s.	**Methodical support**	1. Skliarov P.M. Biotekhnolohiia vidtvorennia sobak i kotiv: navchalnyi posibnyk. Dnipro: FOP Shliupenkov O.A., 2022. 92 s. 2. Koshevoi V.I. Sposib korektsii neplidnosti knuriv nanochastynkamy hadoliniiu ortovanadatu: naukovo-metodychni rekomendatsii / Koshevoi V.I., Naumenko S.V., Klochkov V.K., Yefimova S.L., Skliarov P.M. Kyiv, 2022. 32 s. 3. Naumenko S.V., Koshevoi V.I., Skliarov P.M., Fedorenko S.Ya., Siehodin O.B. Metodychni rekomendatsii do laboratorno-praktychnykh zaniat z vyvchennia rozdilu «Veterynarna androlohiia». Kh., 2025. – 40 s..

GRADING SYSTEM

SYSTEM		POINTS	ACTIVITY THAT IS ASSESSED
Final assessment (different credit, exam)Final evaluation	**100 ECTS points (standard)**	**up to 100**	**40 % - Final testing**
			60 % - student's current work during the semester
Final assessment (non-differential credit)	**100 points ECTS (standard)**	**up to 100**	**100 % - average grade for sections**
Rating of section	**100 points total**	**up to 30**	**30 % - answers to test questions**
		up to 30	**30 % - the result of mastering the block of independent work**
		up to 40	**40 % - student activity in class (oral answers)**

NORMS OF ACADEMIC ETHICS AND INTEGRITY

All participants in the educational process (including students) must adhere to the code of academic integrity and the requirements stipulated in the regulation "On Academic Integrity of Participants in the Educational Process of SBTU": to demonstrate discipline, good manners, respect each other's dignity, show kindness, honesty, and responsibility.